



DRAFT ENVIRONMENTAL IMPACT REPORT

FOR THE

THE CAMPUS PROJECT (SCH # 2023080739)

MAY 2024

Prepared for:

City of Dixon
Planning Division
600 East A St.
Dixon, CA 95620

Prepared by:

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D e N o v o P l a n n i n g G r o u p

A Land Use Planning, Design, and Environmental Firm



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Appendix O: Cultural Resources Assessment (Confidential; on file at the City)

ES.1 PURPOSE

This Draft Environmental Impact Report (Draft EIR) was prepared in accordance with and in fulfillment of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines. As described in CEQA Guidelines Section 15121(a), an EIR is a public information document that assesses the potentially significant environmental impacts of a project. CEQA requires that an EIR be prepared by the agency with primary responsibility over the approval of a project (the lead agency). The City of Dixon (City) is the lead agency for the proposed The Campus EIR. Public agencies are charged with the duty to consider and minimize environmental impacts of proposed development where feasible and have the obligation to balance economic, environmental, and social factors.

This Draft EIR has been prepared according to CEQA requirements to evaluate the potential environmental impacts associated with the implementation of The Campus. This Draft EIR also discusses alternatives to the proposed Project and proposes mitigation measures that would offset, minimize, or otherwise avoid potentially significant environmental impacts. This Draft EIR is intended to provide decision-makers and the public with information that enables consideration of the environmental consequences of The Campus, and has been prepared in accordance with CEQA (California Public Resources Code [PRC] § 21000 *et seq.*) and the CEQA Guidelines (California Code of Regulations [CCR] Title 14, Division 6, Chapter 3).

ES.2 PROJECT LOCATION

The City is located in the Central Valley region of Northern California, along the Interstate 80 (I-80) freeway corridor, with the cities of Davis and Sacramento located approximately six miles and 25 miles to the northeast, respectively, and the cities of Vacaville and San Francisco located approximately 15 miles and 65 miles to the west, respectively, as shown on **Figure ES-1**.

The proposed Project site is located within the City's NEQSP and comprises nearly 40 percent of the plan's total 643+/- acres. The project site is located on the eastern edge of the NEQSP adjacent to Pedrick Road, as shown in **Figure ES-2**. The project site is comprised of APNs 0111-040-010, -020, -030, -040, and 0111-080-050, contains a total of 260 +/- acres (**Figure ES-3**). The site is bounded by Pedrick Road with Solano County unincorporated Agricultural lands to the east, by Industrial designated lands to the north and south, and lands designated as Regional Commercial and Industrial to the west, as shown on **Figure ES-4**.

The project site is currently zoned as Professional & Admin Office (PAO-PUD), Neighborhood Commercial (CN-PUD), and Light Industrial (ML-PUD), and would be rezoned to Campus Mixed Use Planned Development (CAMU-PD) consistent with the property's General Plan land use designation of Campus Mixed Use (CAMU) in effect at the time of the Project's application (**Figure ES-5**).

ES.3 INTRODUCTION

The City of Dixon, as the lead agency, determined that the proposed Dixon Campus Project (proposed Project) is a "project" within the definition of CEQA. CEQA requires the preparation of an environmental impact report (EIR) prior to approving any project, which may have a significant impact on the environment. For the purposes of CEQA, the term "project" refers to the whole of an action, which has

the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]).

The EIR contains a description of the Project, description of the environmental setting, identification of Project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of Project alternatives, identification of significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. This EIR identifies issues determined to have no impact or a less than significant impact, and provides detailed analysis of potentially significant and significant impacts. Comments received in response to the Notice of Preparation (NOP) were considered in preparing the analysis in this EIR.

ES.4 PROJECT OBJECTIVES

California Environmental Quality Act (CEQA) Guidelines Section 15124(b) requires that an EIR project description include a statement of the objectives from an applicant intended to be achieved by the project. The objectives describe the purpose of the project and are intended to assist the lead agency in developing a reasonable range of alternatives for consideration in the EIR, and to assist the decision makers in assessing the feasibility of mitigation measures and alternatives. The objectives of the proposed Project from the applicant are:

1. Create a Project consistent with the Property's Campus Mixed Use General Plan designation.
2. Expand and enhance the City's employment base and reduce the City's current jobs/housing imbalance thereby contributing to the City's economic development goals.
3. Create a campus neighborhood where residential units support the employment-based uses.
4. Create a neighborhood providing residents the opportunity to walk or bike to work in the neighborhood's employment area.
5. Provide a mix of housing and densities, including apartments, small lot and larger lot single family homes.
6. Create home ownership opportunities for the missing middle.
7. Create rental residential opportunities adjacent to employment uses.
8. Create an employment base area that will be more attractive to employers due to the proximity of complementary residential uses.
9. Provide a residential unit count necessary to pay the cost of extending needed infrastructure to the employment base portion of the Project and the remaining undeveloped properties in the Northeast Quadrant Specific Plan.
10. Provide stormwater management facilities that address the impacts of the Project, but also opportunities for more regional stormwater management facilities.

ES.5 PROJECT DESCRIPTION

The Campus proposes a mixed-use development planned to implement the intent of the City's recently created Campus Mixed Use General Plan designation. As defined by the City's 2040 General Plan, the intent of the Campus Mixed Use designation is "... to foster new mixed employment districts with a range of job-generating uses, housing, and easy access to the regional transportation network."

The proposed Project would consist of a phased, mixed-use development that includes an approximately 48-acre Dixon Opportunity Center (DOC), approximately 144 acres of residential uses, and approximately 2.5 acres of commercial uses (**Figure ES-6**). A high-density residential site would be located contiguous to the DOC, and adjacent residential uses. A service commercial site would be located in the southeast corner of the DOC and adjacent to the high-density residential site. The southern portion of the site would consist of medium density and low-density residential uses. **Table ES-1** describes the preliminary land use summary. Please see Chapter 2.0, Project Description for more detail of the proposed Project.

TABLE ES-1: PROPOSED LAND USE SUMMARY

PARCEL	LAND USE	ZONING	GROSS AREA (ACRES)	DWELLING UNITS		CAMU LAND USE
				DENSITY (DU/AC)	DUs (UNITS)	
RESIDENTIAL						
LOT 1	CAMU	CAMU-PD	27.90	4.6	128	LDR
LOT 2	CAMU	CAMU-PD	18.05	5.3	95	LDR
LOT 3	CAMU	CAMU-PD	11.23	8.7	98	MDR
LOT 4	CAMU	CAMU-PD	6.46	9.3	60	MDR
LOT 5	CAMU	CAMU-PD	15.80	7.6	120	MDR
LOT 6	CAMU	CAMU-PD	18.80	6.9	130	LDR
LOT 7	CAMU	CAMU-PD	18.89	5.1	96	LDR
LOT 8	CAMU	CAMU-PD	15.60	5.7	89	LDR
LOT 9	CAMU	CAMU-PD	11.54	19.5	225	HDR
Residential Total:			144.27	7.2	1,041	
COMMERCIAL AND EMPLOYMENT USES						
Service Commercial						
LOT 11	CAMU	CAMU-PD	2.49			CC
Sub-Total:			2.49			
Light Industrial (Dixon Opportunity Center)						
LOT 12	CAMU	CAMU-PD	47.87			T/BP-LI
Sub-Total:			47.87			
Commercial and Employment Total:			50.36			
PARKS, OPEN SPACE & PUBLIC USES						
Parks and Open Space						
LOT 14	CAMU	CAMU-PD	2.36			P/R
LOT 15	CAMU	CAMU-PD	1.64			P/R (Paseo)
LOT 16	CAMU	CAMU-PD	1.58			P/R (Paseo)
LOT 17	CAMU	CAMU-PD	1.42			P/R (Paseo)
LOT 18	CAMU	CAMU-PD	1.42			P/R (Paseo)
LOT 19	CAMU	CAMU-PD	5.00			P/R

PARCEL	LAND USE	ZONING	GROSS AREA (ACRES)	DWELLING UNITS		CAMU LAND USE
				DENSITY (DU/AC)	DUS (UNITS)	
Parks and Open Space Total:			13.42			
Public						
LOT 10 (Detention Pond)	CAMU	CAMU-PD	25.14			P/QP
LOT 13 (Well Site)	CAMU	CAMU-PD	1.58			P/QP
LOT 20 (Drainage Channel)	CAMU	CAMU-PD	1.18			P/QP
Public / Quasi-Public Total:			27.90			
ROADS / R.O.W.		CAMU-PD	23.66			
TOTAL						
The Campus Total:			259.61		1,041	

SOURCE: CITY OF DIXON 2023; DE NOVO PLANNING GROUP 2023.

ES.6 SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. Implementation of the proposed Project would result in significant unavoidable impacts to Agricultural Resources, Air Quality, and Transportation. The environmental effects of the proposed Project on various aspects of the environment are discussed in detail in Chapter 3, Environmental Impacts, Setting, and Mitigation Measures. The project-specific and cumulative impacts that cannot be avoided if the proposed Project is approved as proposed are listed below.

Impact 3.2-1: Implementation of the proposed Project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

Impact 3.2-3: Implementation of the proposed Project, in combination with other cumulative development, would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use.

Impact 3.3-1: Project operations would cause a violation of an air quality standard or contribute substantially to an existing or projected air quality violation.

Impact 3.3-2: Project construction would cause a violation of an air quality standard or contribute substantially to an existing or projected air quality violation.

Impact 3.3-4: The proposed Project would expose the public to toxic air contaminants.

Impact 3.3-6: Implementation of the proposed Project, in combination with other cumulative development, would cause a violation of any air quality standard or contribute substantially to an existing or projected air quality violation.

Impact 3.3-8: Implementation of the proposed Project, in combination with other cumulative development, would expose the public to toxic air contaminants.

Impact 3.15-2: Implementation of the proposed Project would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) regarding Vehicle Miles Traveled (VMT).

Impact 3.15-5: Implementation of the proposed Project, in combination with other cumulative development, would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) regarding Vehicle Miles Traveled (VMT).

ES.7 SUMMARY OF ALTERNATIVES TO THE CAMPUS PROJECT

ALTERNATIVE 1 – NO PROJECT (NO BUILD)

CEQA Guidelines Section 15126.6(e) requires an EIR to evaluate a “no project” alternative, which is defined as what would be reasonably expected to occur in the foreseeable future if the project were not approved. Under Alternative 1, no urban uses would develop on the Project site. The entire Project site would remain vacant and agricultural operations would continue. There would be no progress toward implementation of the NEQSP or the General Plan. No roadway improvements along Pedrick Road and Professional Way, or other roadway extensions, would be constructed. A new retention basin at the southern end of the Project site would not be constructed, and stormwater runoff, and the management thereof, would continue as-is.

The NEQSP would not be amended. The Project site would not be rezoned to CAMU from PAO, ML, and CN to be consistent with the City’s General Plan and would not change the existing Zoning Map. Although the Project site is currently zoned for industrial and mixed-use development, under Alternative 1, the Project site would remain undeveloped and continue operating as farmland for the near term.

ALTERNATIVE 2 – NO PROJECT/EXISTING GENERAL PLAN/INDUSTRIAL USES ONLY

It is common under CEQA to evaluate a no project/existing designations or existing zoning alternative to a proposed project. Under present conditions, the Project site is currently zoned as Professional & Admin Office (PAO-PUD), Neighborhood Commercial (CN-PUD), and Light Industrial (ML-PUD). However, State law requires vertical consistency between a property’s General Plan designation and its zoning. The existing General Plan designation of Campus Mixed Use (CAMU) is not compatible with the site’s existing zoning. To comply with this requirement, development of the Project site cannot be analyzed under its existing zoning. Consequently, this section analyzes development of the Project site under the CAMU land use designation, but only with non-residential/industrial land uses assumed. Per the City’s interpretation of its Zoning Code, a single use could be developed under the CAMU land use designation and the existing zoning on the site provided that there are no residential uses. This alternative reflects that interpretation.

For purposes of analysis, Alternative 2 assumes that the majority of the Project site would build out as light industrial uses (209 acres) and include a larger stormwater drainage basin than proposed under the proposed Project (30 acres), similar to what would be allowable under the site’s existing general plan designations. A well site in the northwest portion of the Project site would be included in Alternative 2, as it is in the proposed Project. See Chapter 6.0, Alternatives for further analysis.

ALTERNATIVE 3– INCREASED NON-RESIDENTIAL/DECREASED RESIDENTIAL

This alternative considered development of the northern portion of the Project site, approximately half of the site's acreage, as light industrial, similar to how the site may build out under existing zoning conditions. The light industrial area would cover approximately 118.81 acres, and be the closest use to I-80. A well site would be included in the northwest corner of the Project site, as it would under the proposed Project.

The southern portion of the Project site would be developed with uses similar to the proposed Project, including light, medium, and high density residential; community commercial; parks; and a drainage basin. The number of dwelling units and their associated residential acreage would decrease by approximately half as compared to the proposed Project. The parks acreage would have a commensurate reduction in size. The acreage for both the service commercial and light industrial uses would increase by approximately 2.5 times.

The drainage basin would increase from 25.14 acres to 28 acres because more of the Project site would be converted to impervious surfaces than under the proposed Project. See Chapter 6.0, Alternatives for further analysis.

ES.8 AREAS OF CONTROVERSY

Pursuant to CEQA Guidelines Section 15123(b), a summary section must address areas of controversy known to the lead agency, including issues raised by agencies and the public, and it must also address issues to be resolved, including the choice among alternatives and whether or how to mitigate significant effects.

In accordance with CEQA Guidelines Section 15082, the City of Dixon circulated a Notice of Preparation (NOP) of an EIR for The Campus Project on August 30, 2023, to trustee and responsible agencies, the State Clearinghouse (SCH), and the public. The 30-day public review period for the NOP then ended on September 29, 2023. A scoping meeting was held on September 20, 2023, which was attended by members of the public. The NOP and all comment letters received on the NOP are presented in Appendix A.

The NOP identified potential for significant impacts on the environment related to the following topical areas:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural and Tribal Cultural Resources
- Energy
- Geology, Soils, and Seismicity
- Greenhouse Gas Emissions
- Hazards and Hazardous Material
- Hydrology and Water Quality
- Land Use
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation
- Utilities and Service Systems

The NOP also identified certain topical areas where impacts were found to be less than significant because implementation of the proposed Project would not create such impacts. These topical areas include forestry resources and mineral resources, and are discussed in Chapter 6, Effects Found not to be Significant, in this Draft EIR.

DISAGREEMENT AMONG EXPERTS

This Draft EIR contains substantial evidence to support all conclusions presented herein. It is possible that there will be disagreement among various parties regarding these conclusions, although the City of Dixon is not aware of any disputed conclusions at the time of this writing. Both the CEQA Guidelines and case law clearly provide standards for treating disagreement among experts. Where evidence and opinions conflict on an issue concerning the environment, and the lead agency knows of these controversies in advance, the EIR must acknowledge the controversies, summarize conflicting opinions of the experts, and include sufficient information to allow the public and decision makers to make an informed judgment about environmental consequences of the proposed Project.

POTENTIALLY CONTROVERSIAL ISSUES

It is also possible that evidence will be presented during the 45-day statutory Draft EIR public review period that may create disagreement. Decision makers would consider this evidence during the public hearing process.

In rendering a decision on a project where there is disagreement among experts, decision makers are not obligated to select the most environmentally preferable viewpoint. Decision makers are vested with the ability to choose whatever viewpoint is preferable and need not resolve a dispute among experts. In their proceedings, decision makers must consider comments received concerning adequacy of the Draft EIR and address any objections raised in these comments. However, decision makers are not obligated to follow any directives, recommendations, or suggestions presented in comments on the Draft EIR, and can certify the Final EIR without needing to resolve disagreements among experts.

ES.9 PUBLIC REVIEW OF THE DRAFT EIR

Upon completion of the Draft EIR for the proposed Project, the City of Dixon filed a Notice of Completion (NOC) with the State Clearinghouse (SCH) of the Governor's Office of Planning and Research to begin the public review period (PRC Section 21161) on May 24, 2024.

Concurrent with the NOC, the City provided a public Notice of Availability (NOA) for the Draft EIR, and invited comment from the general public, agencies, organizations, and other interested parties, consistent with CEQA requirements. The NOA was filed with the State Clearinghouse (SCH# 2023080739). The Draft EIR is available for public review from May 24, 2024 through July 9, 2024.

Upon completion of the public review period, written responses to all significant environmental issues raised will be prepared and made available for review by the commenting agencies at least 10 days prior to the public hearing before the Dixon City Council, at which the certification of the Final EIR will be considered. Comments received and the responses to comments will be included as part of the record for consideration by decision makers for The Campus Project.

Table ES-2 provides a summary of the proposed Project's impacts, mitigation measures if any, and level of significance.

TABLE ES-2: PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
SECTION 3.1—AESTHETICS			
Impact 3.1-1: The proposed Project would result in substantial adverse effects on scenic vistas.	Less than Significant.	None Required.	Less than Significant.
Impact 3.1-2: The proposed Project would result substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality.	Less than Significant.	None Required.	Less than Significant.
Impact 3.1-3: The proposed Project could result in light and glare impacts.	Potentially Significant.	Mitigation Measure 3.1-3: The Project applicant shall develop and implement a signage and lighting plan, as approved in the City’s Site Plan and Design Review process, to ensure that all outdoor lighting associated with the proposed Project is designed to minimize lighting that is misdirected, excessive, or unnecessary by requiring lighting for development to be directed downward and minimize spill-over onto adjacent properties.	Less than Significant.
Impact 3.1-4: The proposed Project, in combination with other cumulative development, could result in substantial adverse effects on scenic vistas.	Less than Significant.	None Required.	Less than Significant.
Impact 3.1-5: The proposed Project, in combination with other cumulative development, could substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality.	Less than Significant.	None Required.	Less than Significant.
Impact 3.1-6: The proposed Project, in combination with other cumulative development, could result in light and glare impacts.	Less than Significant.	None Required.	Less than Significant.

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
SECTION 3.2—AGRICULTURAL RESOURCES			
<p>Impact 3.2-1: Implementation of the proposed Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.</p>	Potentially Significant.	<p>Mitigation Measure 3.2-1: The Project proponent shall provide conservation of agricultural land within the Dixon Planning Area or within a ten-mile radius of the City at a 1:1 ratio, or pay the appropriate fee to participate in the City’s master agricultural conversion program.</p>	Significant and Unavoidable.
<p>Impact 3.2-2: Implementation of the proposed Project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.</p>	Less than Significant.	None Required.	Less than Significant.
<p>Impact 3.2-3 Implementation of the proposed Project, in combination with other cumulative development, could convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use.</p>	Potentially Significant.	<p>Mitigation Measure 3.2-3: Implement Mitigation Measure 3.2-1.</p>	Significant and Unavoidable.
SECTION 3.3—AIR QUALITY			
<p>Impact 3.3-1: Project operations would cause a violation of an air quality standard or contribute substantially to an existing or projected air quality violation.</p>	Potentially Significant.	<p>Mitigation Measure 3.3-1(a): Prior to the issuance of each building permit, the Project applicant shall ensure that the Project buildings are designed to exceed the Title 24 Building Envelope Energy Efficiency Standards by 1% or greater.</p> <p>Mitigation Measure 3.3-1(b): During Project operation, operators of heavy-duty trucks that travel to and from the Project site are required to use trucks that have 2010 model year or newer engines that meet the CARB’s 2010 engine emission standards of 0.01 g/bhp-hr for particulate matter (PM) and 0.20 g/bhp-hr of NOx emissions, or newer, cleaner trucks and equipment.</p>	Significant and Unavoidable.

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
<p>Impact 3.3-2: Project construction would cause a violation of an air quality standard or contribute substantially to an existing or projected air quality violation.</p>	<p>Potentially Significant.</p>	<p>Mitigation Measure 3.3-2: The Project applicant shall implement the following dust control measures during all construction activities. These measures shall be incorporated as part of the building and grading plans.</p> <ul style="list-style-type: none">• Water all active construction sites at least two times daily. Frequency should be based on the type of operation, soil, and wind exposure.• Apply water or dust palliatives on exposed earth surfaces as necessary to control dust emissions. Construction contracts shall include dust control treatment in late morning and at the end of the day, of all earth surfaces during clearing, grading, earth moving, and other site preparation activities. Non-potable water shall be used, where feasible. Existing wells shall be used for all construction purposes where feasible. Excessive watering will be avoided to minimize tracking of mud from the Project onto streets as determined by Public Works.• Grading operations on the site shall be suspended during periods of high winds (i.e. winds greater than 15 miles per hour).• Outdoor storage of fine particulate matter on construction sites shall be prohibited.• Contractors shall cover any stockpiles of soil, sand and similar materials. There shall be no storage of uncovered construction debris for more than one week.• Re-vegetation or stabilization of exposed earth surfaces shall be required in all inactive areas in the Project.	<p>Significant and Unavoidable.</p>

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
		<ul style="list-style-type: none"> • Cover all trucks hauling dirt, sand, or loose materials, or maintain at least two feet of freeboard within haul trucks. • Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydroseed area (as applicable). • Sweep streets if visible soil material is carried out from the construction site. • Treat accesses to a distance of 100 feet from the paved road with a 6-inch layer of gravel. • Reduce speed on unpaved roads to less than 5 miles per hour. 	
Impact 3.3-3: The proposed Project could increase the concentrations or number of CO hot spots.	Less than Significant.	None Required.	Less than Significant.
Impact 3.3-4: The proposed Project would expose the public to toxic air contaminants.	Potentially Significant.	Mitigation Measure 3.3-4: Implement Mitigation Measure 3.3-2.	Significant and Unavoidable.
Impact 3.3-5: The proposed Project could expose sensitive receptors to odors.	Less than Significant.	None Required.	Less than Significant.
Impact 3.3-6: Implementation of the proposed Project, in combination with other cumulative development, would cause a violation of any air quality standard or contribute substantially to an existing or projected air quality violation.	Potentially Significant.	Mitigation Measure 3.3-6: Implement Mitigation Measure 3.3-2.	Significant and Unavoidable.
Impact 3.3-7: Implementation of the proposed Project, in combination with other cumulative development, would not cause carbon monoxide impacts.	Less than Significant.	None Required.	Less than Significant.
Impact 3.3-8: Implementation of the proposed Project, in combination with other cumulative development, would expose the public to toxic air contaminants.	Potentially Significant.	Mitigation Measure 3.3-8: Implement Mitigation Measure 3.3-2.	Significant and Unavoidable.

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Impact 3.3-9: Implementation of the proposed Project, in combination with other cumulative development, would not expose sensitive receptors to odors.	Less than Significant.	None Required.	Less than Significant.
SECTION 3.4—BIOLOGICAL RESOURCES			
Impact 3.4-1: Implementation of the proposed Project would not result in direct or indirect effects on special-status invertebrate species.	Less than Significant.	None Required.	Less than Significant.
Impact 3.4-2: Implementation of the proposed Project would not result in direct or indirect effects on special-status reptile and amphibian species.	Less than Significant.	None Required.	Less than Significant.
Impact 3.4-3: Implementation of the proposed Project would not result in direct or indirect effects on special-status fish and mollusk species.	No Impact.	None Required.	No impact.
Impact 3.4-4: Implementation of the proposed Project, with mitigation, would not result in direct or indirect effects on special-status bird species.	Potentially Significant.	<p>Mitigation Measure 3.4-4(a): The Project proponent shall implement the following measure to avoid or minimize impacts on western burrowing owl:</p> <ul style="list-style-type: none"> • A qualified biologist shall conduct focused burrowing owl surveys in the Project area and surrounding 500 feet, where accessible, in accordance with the CDFW’s Staff Report on Burrowing Owl Mitigation (Staff Report), published March 7, 2012. Surveys shall be repeated if project activities are suspended or delayed more than 14 days. <ul style="list-style-type: none"> ○ According to the Staff Report, four survey visits shall be conducted during the breeding season (February 1 to August 31): 1) at least one site visit between February 15 and April 15, and 2) a minimum of three survey visits, at least three weeks apart, between April 15 and July 15, with at least one visit after June 15. 	Less than Significant.

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
		<ul style="list-style-type: none"> ○ Non-breeding season surveys shall be conducted during four site visits, spread evenly apart. ○ Take avoidance surveys may also be conducted. An initial take avoidance survey shall be conducted no less than 14 days prior to initiating ground disturbance activities using the methods outlined in the Staff Report. Implementation of avoidance and minimization measures would be triggered by positive owl presence on the site where project activities will occur. The development of avoidance and minimization approaches would be informed by monitoring the burrowing owls. Burrowing owls may re-colonize a site after only a few days. Time lapses between project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance. • If no burrowing owls are detected, no further measures are required. If active burrowing owl burrows are detected, the avoidance, minimization, and mitigation methodologies outlined in the CDFW’s Staff Report on Burrowing Owl Mitigation shall be followed prior to initiating Project related activities that may impact burrowing owls. 	

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
		<p>Mitigation Measure 3.4-1(b): The project proponent shall implement the following measures to avoid or minimize impacts on Swainson’s hawk:</p> <ul style="list-style-type: none">• If construction activities will begin during the Swainson’s hawk nesting season (March 20 to September 15), a qualified biologist should conduct at least the minimum number of surveys called for within at least two survey periods prior to the initiation of construction in accordance with the Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley (Swainson’s Hawk Technical Advisory Committee 2000) or the current CDFW-approved protocol. Current survey periods specified by the Guidelines are March 20 to April 5, April 5 to April 20, April 21 to June 10, and June 10 to July 30. All potential nest trees within 0.5-mile of the proposed Project footprint should be visually examined for potential Swainson’s hawk nests, as accessible.• If no active Swainson’s hawk nests are identified on or within 0.5-mile of the proposed Project, a letter report documenting the survey methodology and findings should be submitted to the Project proponent and no additional mitigation measures are recommended.• If active Swainson’s hawk nests (a nest becomes active once the first egg is laid and remains active until the fledged young are no longer dependent on the nest [USFWS 2018]) are found within 0.5-mile of the Project footprint, a survey report should be submitted to CDFW, and an avoidance and minimization plan should be developed for	

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
		<p>approval by CDFW prior to the start of construction. The avoidance plan should identify measures to minimize impacts to the active Swainson’s hawk nest depending on the location of the nest relative to the project footprint. These measures may include:</p> <ul style="list-style-type: none"> ○ Conduct a worker awareness training program prior to the start of construction; ○ Establish a buffer zone and work schedule to avoid impacting the nest during critical periods. If possible, no work will occur within 200 yards of the nest while it is in active use. If work will occur within 200 yards of the nest, then construction will be monitored by a qualified biologist to ensure that no work occurs within 50 yards of the nest during incubation or within 10 days after hatching (Swainson’s Hawk Technical Advisory Committee 2000); ○ Have a biological monitor conduct regular monitoring of the nest during construction activities; and ○ Should the project biologist determine that the construction activities are disturbing the nest; the biologist should halt construction activities until the CDFW is consulted. <ul style="list-style-type: none"> • The Project site contains 261.192 acres of cropland habitats which provide suitable foraging habitat for Swainson’s hawks. 	

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
		<p>CDFW has provided guidelines for mitigating impacts to Swainson’s hawk foraging habitat as summarized below (CDFW 1994):</p> <ul style="list-style-type: none">a) Projects within 1 mile of an active nest tree shall provide:<ul style="list-style-type: none">i. One acre of foraging habitat for each acre of development at a ratio of 1:1. Mitigated lands shall consist of 10 percent of the land requirements met by fee title acquisition or a conservation easement allowing for the active management of the habitat, and the remaining 90 percent of the land protected by a conservation easement on agricultural lands or other suitable habitats which provide foraging habitat for Swainson’s hawk (grasslands, rangeland, etc.) and no requirements for active management of the habitat; orii. One-half acre of foraging habitat for each acre of development authorized at a ratio of 0.5:1. All the land requirements shall be	

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
		<p>met by fee title acquisition or a conservation easement, which allows for the active management of the habitat for prey production on the land. Prey abundance and availability is determined by land and farming patterns including crop types, agricultural practices, and harvesting regimes. Actively managed land for prey production may result in the land becoming less valuable for crop production due to management limitations but increases the value for Swainson’s hawk through functional lift.</p> <p>b) Projects within 5 miles of an active nest tree but greater than 1 mile from the nest tree shall provide 0.75 acre of foraging habitat for each acre of urban development at a ratio of 0.75:1. All foraging habitat may be protected through fee title acquisition or conservation easement on agricultural lands or other suitable habitats.</p> <p>c) Projects within 10 miles of an active nest tree but greater than 5</p>	

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
		<p>miles from an active nest tree shall provide 0.5 acre of Habitat Management land for each acre of urban development at a ratio of 0.5:1. All foraging habitat may be protected through fee title acquisition or a conservation easement on agricultural lands or other suitable habitat.</p> <p>The City of Dixon as the CEQA lead agency shall make the final determination as to the extent of the proposed Project's impacts to Swainson's hawk foraging habitat and any appropriate mitigation that might be necessary associated with project development. Mitigation bank credits may also be used to satisfy Swainson's hawk mitigation requirements as approved by the City and CDFW.</p> <p>Mitigation Measure 3.4-1(c): The project proponent shall implement the following measure to avoid or minimize impacts on tricolored blackbird, northern harrier, white-tailed kite and other special-status birds and nesting migratory birds and raptors that may occur on the site:</p> <p>Active nests and nesting birds are protected by the California Fish and Game Code Sections 3503 and 3503.5, 3513 and the MBTA. Ground-disturbing and other development activities including grading, vegetation clearing, tree removal/trim, and construction could impact nesting birds if these activities occur during the nesting season (generally February 1 to August 31). To avoid impacts to nesting birds, all ground disturbing activity shall be completed between September 1 and January 31, if feasible. If construction cannot occur outside of the nesting season, the following measures are recommended:</p>	

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
		<ul style="list-style-type: none"> • If construction activities occur during the nesting season, a qualified biologist shall conduct a nesting bird survey to determine the presence of any active nests within the Project site. Additionally, the surrounding 500 feet of the Project site shall be surveyed for active raptor nests, where accessible. The nesting bird survey shall be conducted within 14 days prior to commencement of ground-disturbing or other development activities. If the nesting bird survey shows that there is no evidence of active nests, then a letter report shall be prepared to document the survey and be provided to the project proponent and no additional measures are recommended. If development does not commence within 14 days of the nesting bird survey, or halts for more than 14 days, then an additional survey is required prior to starting or resuming work within the nesting season. <ul style="list-style-type: none"> ○ If active nests are found, then the qualified biologist shall establish a species-specific buffer to prohibit development activities near the nest to and minimize nest disturbance until the young have successfully fledged or the biologist determines that the nest is no longer active. Buffer distances may range from 30 feet for some songbirds and 0.5 mile for some raptors. Nest monitoring may also be warranted during certain phases of construction to ensure nesting birds are not adversely impacted. If active 	

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
		<p> nests are found within any trees slated for removal, then an appropriate buffer shall be established around the tree and all trees within the buffer shall not be removed until a qualified biologist determines that the nest has successfully fledged and/or is no longer active.</p> <ul style="list-style-type: none"> • A qualified biologist shall conduct environmental awareness training that is given to all onsite personnel prior to the initiation of work. • If construction occurs outside of the nesting bird season (September 1 to January 31) a nesting bird survey and environmental training for nesting birds would not be required 	
<p>Impact 3.4-5: Implementation of the proposed Project would not result in direct or indirect effects on special-status mammal species.</p>	<p>Less than Significant.</p>	<p>None Required.</p>	<p>Less than Significant.</p>
<p>Impact 3.4-6: Implementation of the proposed Project would not result in direct or indirect effects on candidate, sensitive, or special-status plant species.</p>	<p>Less than Significant.</p>	<p>None Required.</p>	<p>Less than Significant.</p>
<p>Impact 3.4-7: Implementation of the proposed Project, with mitigation, would not affect protected wetlands and jurisdictional waters.</p>	<p>Potentially Significant.</p>	<p>Mitigation Measure 3.4-7: The Project proponent shall implement the following measure to avoid or minimize impacts on potentially jurisdictional waters:</p> <ul style="list-style-type: none"> • Before any activities that would result in discharge, fill, removal, or hydrologic interruption of any of the water features occur within the Project site, the Project proponent shall obtain an approved jurisdictional delineation (AJD) from the USACE. • For any impacts on jurisdictional features, the Project proponent shall obtain the 	<p>Less than Significant.</p>

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
		<p>appropriate CWA Section 404 and or 401 permits. All permit conditions including required avoidance, minimization, and mitigation measures included as conditions of the permit shall be followed.</p> <ul style="list-style-type: none"> Section 404 authorization from the USACE and a Section 401 Water Quality Certification from the RWQCB shall be required prior to the start of construction that would impact any waters of the U.S. Any waters of the U.S. or jurisdictional wetlands that would be lost or disturbed shall be replaced or rehabilitated on a “no-net-loss” basis in accordance with the USACE mitigation guidelines and City of Dixon requirements. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods agreeable to the agencies. <p>If a 404 permit is required for the proposed Project, then water quality concerns during construction shall be addressed in the Section 401 water quality certification from the Regional Water Quality Control Board. A Storm Water Pollution Prevention Plan (SWPPP) shall also be required during construction activities. SWPPPs are required in issuance of a National Pollutant Discharge Elimination System (NPDES) construction discharge permit by the U.S. Environmental Protection Agency. Implementation of Best Management Practices (BMPs) during construction is standard in most SWPPPs and water quality certifications. Examples of BMPs include stockpiling of debris away from regulated wetlands and waterways; immediate</p>	

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
		<p>removal of debris piles from the site during the rainy season; use of silt fencing and construction fencing around regulated waterways; and use of drip pans under work vehicles and containment of fuel waste throughout the site during construction.</p> <p>If the ditches are determined to not be subject to federal jurisdiction, then these features may still be subject to waste discharge requirements under the Porter-Cologne Water Quality Control Act. Section 13260(a) of the Porter-Cologne Water Quality Control Act (contained in the California Water Code) requires any person discharging waste or proposing to discharge waste, other than to a community sewer system, within any region that could affect the quality of the waters of the State (all surface and subsurface waters) to file a report of waste discharge. The discharge of dredged or fill material into the ditches may constitute a discharge of waste that could affect the quality of waters of the State. A report of waste discharge shall be filed for impacts to non-federal waters, if required.</p>	
<p>Impact 3.4-8: Implementation of the proposed Project would not result in direct or indirect adverse effects on riparian habitat or a sensitive natural community.</p>	<p>No impact.</p>	<p>None Required.</p>	<p>No impact.</p>
<p>Impact 3.4-9: Implementation of the proposed Project would not result in interference with the movement of native fish or wildlife species or with established wildlife corridors, or impede the use of native wildlife nursery sites.</p>	<p>No impact.</p>	<p>None Required.</p>	<p>No impact.</p>

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
<p>Impact 3.4-10: Implementation of the proposed Project would not result in conflicts with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.</p>	<p>Less than Significant.</p>	<p>None Required.</p>	<p>Less than Significant.</p>
<p>Impact 3.4-11: Implementation of the proposed Project, with mitigation, would not result in conflicts with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.</p>	<p>Potentially Significant.</p>	<p>Mitigation Measure 3.4-11: Should the Solano Multispecies Habitat Conservation Plan (Solano HCP) be adopted prior to initiation of any ground disturbing activities for any phase of development associated with the project, the Project shall be developed in accordance with the Solano HCP and the Programmatic Endangered Species Act Consultation issued by the U.S. Fish and Wildlife Service. The Solano HCP is proposed to include avoidance and minimization measures as well as mitigation protocols for covered species and sensitive habitats. The City of Dixon is a voluntary participant in the proposed Solano HCP.</p> <p>The Project applicant, the City of Dixon, and a representative from the Solano HCP shall ensure that all mitigation/conservation requirements of the Solano HCP are adhered to prior to and during construction. To the extent there is duplication in mitigation for a given species, the requirements of the Solano HCP shall supersede. If this measure is implemented after adoption of the Solano HCP, the project proponent shall comply with all requirements of the Solano HCP.</p>	<p>Less than Significant.</p>
<p>Impact 3.4-12: The proposed Project, in combination with other cumulative development, could result in the loss of biological resources including habitats and special status species.</p>	<p>Potentially Significant.</p>	<p>Mitigation Measure 3.4-12: Implement Mitigation Measures 3.4-4(a) through 3.4-4(c), and 3.4-7 and 3.4-11.</p>	<p>Less than Significant.</p>
<p>SECTION 3.5—CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES</p>			
<p>Impact 3.5-1: The proposed Project would not, with mitigation, cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5.</p>	<p>Potentially Significant.</p>	<p>Mitigation Measure 3.5-1(a): The Project proponent shall develop and implement an Archaeological Monitoring Program, whereby the Project proponents shall retain the services of an</p>	<p>Less than Significant.</p>

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
		<p>experienced archaeologist who will be present on-site to observe ground-disturbing activities requiring grubbing, grading, trenching, or excavation within defined Project areas. The Archaeological Monitor will be given access to inspect all ground surface and subsurface modifications, excavations, installations, equipment parking, and any other construction-related activities in the vicinity of the defined Project areas. These defined Project areas consist of the two (now filled-in) historic drainage areas, located in the northern and southern portions of the APE, and the graveled-over area, located within the central-western portion of the APE.</p> <p>The archaeological monitoring will consist of on-the-ground and close observation by an experienced archaeologist for any kind of archaeological or cultural remains that might be exposed during ground-disturbing construction activities.</p> <p>Construction activities will be monitored by following the construction equipment as it removes or modifies soils and vegetation, and may involve walking cuts or excavations after the machinery has passed, or standing to the side and observing the soil removal activity. The archaeologist on-site will be given “stop work authority” so that in the event that they observe a change in soil conditions and/or artifacts or structural remains, they shall bring all construction activities within a 164 ft radius of the area to a stop so that they may further assess the find. Further ground disturbances in the vicinity of the find will remain stopped while an assessment is underway and until the archaeologist on-site can provide recommendations for treatment of the discovery. If a potentially significant find cannot be avoided by the project, the retained archaeologist, who meets the Secretary of the Interior’s Professional Qualifications Standards, will develop an evaluation plan in consultation with the City that contains a research</p>	

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
		<p>design to guide assessments of the resource’s significance and scientific potential.</p> <p>Mitigation Measure 3.5-1(b): The Project proponent shall develop and implement a Worker Awareness Training Program, where all construction personnel involved in ground-disturbing activities shall be trained in the recognition of possible cultural resources and the protection of such resources. The training program will inform all construction personnel of the procedures to be followed upon the discovery of archaeological materials, including Native American artifacts. Construction personnel will be instructed that cultural resources must be avoided and that all travel and construction activity must be confined to designated roads and areas. The training will include a review of the local, state, and federal laws and regulations related to cultural resources, as well as instructions on the procedures to be implemented should unanticipated resources be encountered during construction, including stopping work in the vicinity of the find and contacting the appropriate environmental compliance specialist.</p>	
<p>Impact 3.5-2: The proposed Project would not, with mitigation, cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.</p>	<p>Potentially Significant.</p>	<p>Mitigation Measures 3.5-2: Implement Mitigation Measures 3.5-1(a) and 3.5-1(b)</p>	<p>Less than Significant.</p>

<p>Impact 3.5-3: The proposed Project would not disturb any human remains, including those interred outside of dedicated cemeteries.</p>	<p>Potentially Significant.</p>	<p>Mitigation Measure 3.5-3: If an inadvertent discovery of human remains is made at any time during project-related construction activities or project planning, the following performance standards shall be met before implementing or continuing actions such as construction that may result in damage to or destruction of human remains. In accordance with the California Health and Safety Code (HSC), if human remains are encountered during ground-disturbing activities, the City shall immediately halt potentially damaging excavation in the area of the remains and notify the Solano County Coroner and a qualified archaeologist (meeting the Secretary of the Interior’s Professional Qualifications Standards for Archeology) to determine the nature of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (HSC Section 7050.5[b]).</p> <p>If the human remains are of historic age and are determined by the Solano County Coroner to be not of Native American origin, the City will follow the provisions of HSC Section 7000 et seq. regarding the disinterment and removal of non–Native American human remains.</p> <p>If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (HSC Section 7050[c]). After the coroner’s findings have been made, the archaeologist and the NAHC-designated Most Likely Descendant, in consultation with the landowner, shall determine the ultimate treatment and disposition of the remains. The responsibilities of the City for acting upon notification of a discovery of Native American human remains are identified in Public Resources Code Section 5097.9 et seq.</p>	<p>Less than Significant.</p>
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IMPACTS	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
<p>Impact 3.5-4: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p> <ul style="list-style-type: none"> Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)? A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. 	<p>Potentially Significant.</p>	<p>Mitigation Measure 3.5-4(a): Implement Mitigation Measures 3.5-1(a), 3.5-1(b), 3.5-2, and 3.5-3.</p> <p>Mitigation Measure 3.5-4(b): A tribal cultural resources awareness brochure and training program for all personnel involved in the project’s ground disturbing activities (site grading, utility infrastructure installation, construction, etc.) shall be developed in coordination with interested Native American Tribes. The brochure shall be distributed and the training will be conducted by Native American representatives, or tribal monitors from culturally affiliated Native American Tribes, before any stages of project implementation and construction activities begin on the Project site. The training may be done in coordination with the project archaeologist. The program will include relevant information regarding sensitive tribal cultural resources, applicable regulations and protocols for avoidance, and consequences of violating state laws and regulations. The program will describe appropriate avoidance and minimization measures for resources that have the potential to be located on the Project site and will outline what to do and whom to contact if any potential tribal cultural resources or archaeological resources are encountered. The program will underscore the requirement for confidentiality and culturally appropriate treatment of any find with cultural significance to Native Americans’ tribal values. All operators of ground-disturbing equipment shall receive the training and sign a form that acknowledges receipt of the training.</p>	<p>Less than Significant.</p>

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
Impact 3.5-5: Implementation of the proposed Project, in combination with other cumulative development, could contribute to the cumulative loss or alteration of historic-era and indigenous archaeological resources and/or human remains in archaeological contexts.	Potentially Significant.	Mitigation Measure 3.5-5: Implement Mitigation Measures 3.5-1(a), 3.5-1(b), 3.5-2, and 3.5-3.	Less than Significant.
SECTION 3.6—ENERGY			
Impact 3.6-1: Project implementation would not result in the inefficient, wasteful, or unnecessary use of energy resources.	Less than Significant.	None Required.	Less than Significant.
Impact 3.6-2: Implementation of the proposed Project, in combination with other cumulative development, would not result in the inefficient, wasteful, or unnecessary use of energy resources.	Less than Significant.	None Required.	Less than Significant.
SECTION 3.7—GEOLOGY, SOILS, AND SEISMICITY			
Impact 3.7-1: Implementation of the proposed Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking or seismic-related ground failure, including liquefaction.	Less than Significant.	None Required.	Less than Significant.
Impact 3.7-2: Implementation of the proposed Project would not result in substantial soil erosion or the loss of topsoil.	Less than Significant.	None Required.	Less than Significant.
Impact 3.7-3: Implementation of the proposed Project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	Less than Significant.	None Required.	Less than Significant.
Impact 3.7-4: Implementation of the proposed Project would not be located on expansive soil, as defined in Tables 18-1-D of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.	Less than Significant.	None Required.	Less than Significant.

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
<p>Impact 3.7-5: Implementation of the proposed Project, with mitigation, would not or indirectly destroy a unique paleontological resource or site or unique geologic feature.</p>	<p>Potentially Significant.</p>	<p>Mitigation Measure 3.7-5: If fossils or fossil-bearing deposits are encountered during ground-disturbing activities, work within a 25-foot radius of the find shall halt, the Dixon Community Development Department shall be notified, and a professional vertebrate paleontologist (as defined by the Society for Vertebrate Paleontology) shall be contacted immediately to evaluate the find. The paleontologist shall have the authority to stop or divert construction, as necessary. Documentation and treatment of the discovery shall occur in accordance with Society of Vertebrate Paleontology standards. The significance of the find shall be evaluated pursuant to the CEQA Guidelines. If the discovery proves to be significant, before construction activities resume at the location of the find, additional work such as data recovery excavation may be warranted, as deemed necessary by the paleontologist.</p>	<p>Less than Significant.</p>
<p>Impact 3.7-6: Implementation of the proposed Project, in combination with other cumulative development, would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking or seismic-related ground failure, including liquefaction.</p>	<p>Less than Significant.</p>	<p>None Required.</p>	<p>Less than Significant.</p>
<p>Impact 3.7-7: Implementation of the proposed Project, in combination with other cumulative development, would not result in substantial soil erosion or the loss of topsoil.</p>	<p>Less than Significant.</p>	<p>None Required.</p>	<p>Less than Significant.</p>
<p>Impact 3.7-8: Implementation of the proposed Project, in combination with other cumulative development, would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.</p>	<p>Less than Significant.</p>	<p>None Required.</p>	<p>Less than Significant.</p>
<p>Impact 3.7-9: Implementation of the proposed Project, in combination with other cumulative development, would not be located on expansive soil, as defined in Tables 18-1-D of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.</p>	<p>Less than Significant.</p>	<p>None Required.</p>	<p>Less than Significant.</p>

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
Impact 3.7-10: Implementation of the proposed Project, in combination with other cumulative development, would not or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Potentially Significant.	Mitigation Measure 3.7-10: Implement Mitigation Measure 3.7-5.	Less than Significant.
SECTION 3.8—GREENHOUSE GAS EMISSIONS			
Impact 3.8-1: Project implementation would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Less than Significant.	None Required.	Less than Significant.
SECTION 3.9—HAZARDS AND HAZARDOUS MATERIALS			
Impact 3.9-1: Implementation of the proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Less than Significant.	None Required.	Less than Significant.
Impact 3.9-2: Implementation of the proposed Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Less than Significant.	None Required.	Less than Significant.
Impact 3.9-3: Implementation of the proposed Project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.	Less than Significant.	None Required.	Less than Significant.
Impact 3.9-4: The proposed Project would not be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and implementation of the proposed Project would not result in a safety hazard or excessive noise for people residing or working in the Project site.	Less than Significant.	None Required.	Less than Significant.
Impact 3.9-5: Implementation of the proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less than Significant.	None Required.	Less than Significant.

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
Impact 3.9-6: Implementation of the proposed Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.	Less than Significant.	None Required.	Less than Significant.
Impact 3.9-7: Implementation of the proposed Project, in combination with other cumulative development, would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Less than Significant.	None Required.	Less than Significant.
Impact 3.9-8: Implementation of the proposed Project, in combination with other cumulative development, would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Less than Significant.	None Required.	Less than Significant.
Impact 3.9-9: Implementation of the proposed Project, in combination with other cumulative development, could be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.	Less than Significant.	None Required.	Less than Significant.
Impact 3.9-10: The proposed Project, in combination with other cumulative development, would not be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, resulting in a safety hazard or excessive noise for people residing or working in the Project site.	Less than Significant.	None Required.	Less than Significant.
Impact 3.9-11: Implementation of the proposed Project, in combination with other cumulative development, would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less than Significant.	None Required.	Less than Significant.
Impact 3.9-12: Implementation of the proposed Project, in combination with other cumulative development, would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.	Less than Significant.	None Required.	Less than Significant.

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
SECTION 3.10—HYDROLOGY AND WATER QUALITY			
Impact 3.10-1: Implementation of the proposed Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	Less than Significant.	None Required.	Less than Significant.
Impact 3.10-2: Implementation of the proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	Less than Significant.	None Required.	Less than Significant.
Impact 3.10-3: Implementation of the proposed Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows.	Less than Significant.	None Required.	Less than Significant.
Impact 3.10-4: Implementation of the proposed Project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones.	Less than Significant.	None Required.	Less than Significant.
Impact 3.10-5: Implementation of the proposed Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Less than Significant.	None Required.	Less than Significant.

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
Impact 3.10-6: Implementation of the proposed Project, in combination with other cumulative development, would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	Less than Significant.	None Required.	Less than Significant.
Impact 3.10-7: Implementation of the proposed Project, in combination with other cumulative development, would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	Less than Significant.	None Required.	Less than Significant.
Impact 3.10-8: Implementation of the proposed Project, in combination with other cumulative development, would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in flooding on- or offsite; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows.	Less than Significant.	None Required.	Less than Significant.
Impact 3.10-9: Implementation of the proposed Project, in combination with other cumulative development, would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones.	Less than Significant.	None Required.	Less than Significant.
SECTION 3.11—LAND USE			
Impact 3.11-1: The proposed Project would not result in the physical division of an established community.	No impact.	None Required.	No impact.
Impact 3.11-2: The proposed Project would not conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted to avoid or mitigate an environmental effect.	Less than Significant.	None Required.	Less than Significant.
Impact 3.11-3: The proposed Project would not conflict with an applicable habitat conservation plan or natural community conservation plan.	Potentially Significant	Mitigation Measure 3.11-3: Implement Mitigation Measure 3.4-5.	Less than Significant.

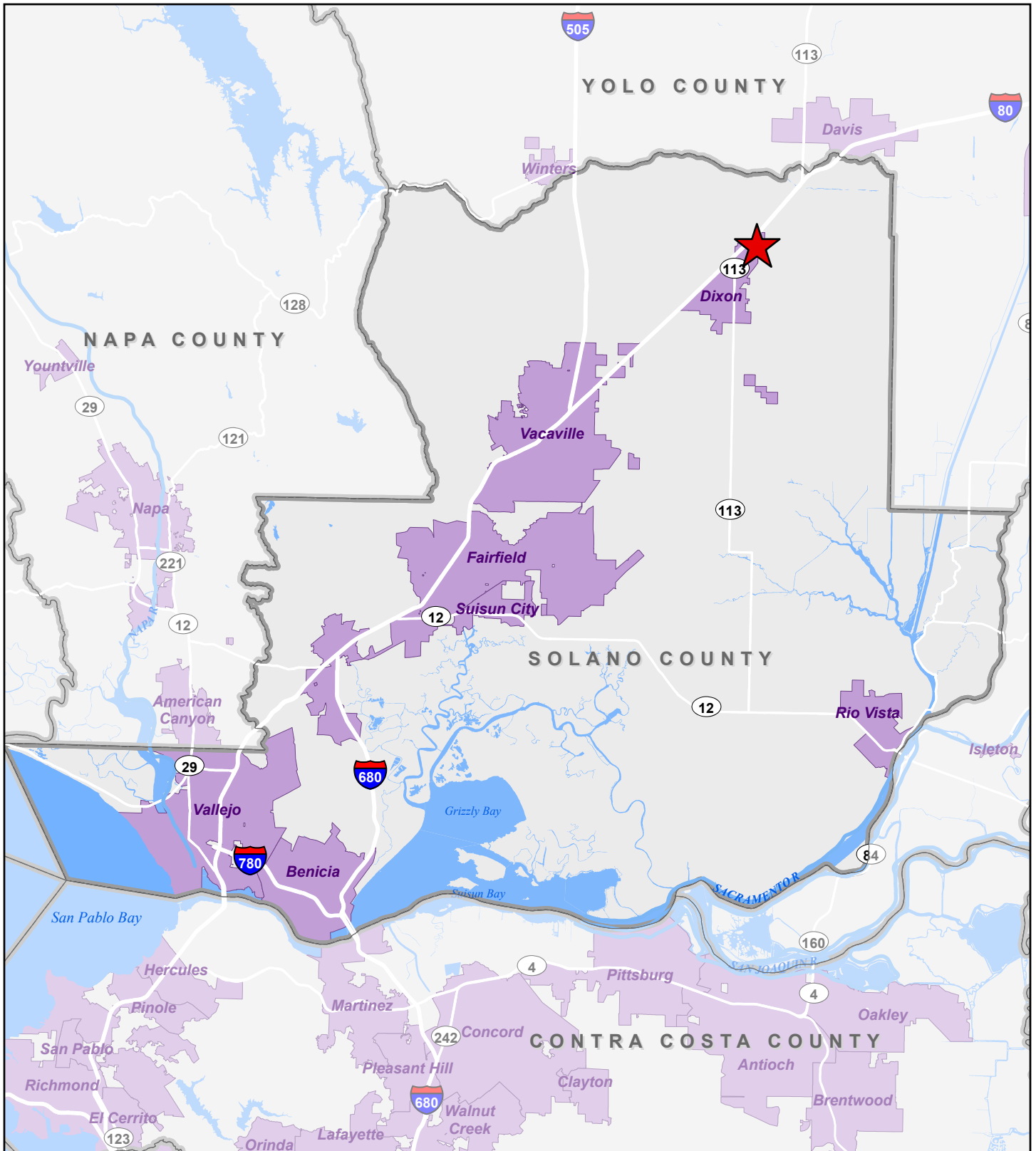
<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
Impact 3.11-4: The proposed Project, in combination with cumulative development, would not conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted to avoid or mitigate an environmental effect.	Less than Significant.	None Required.	Less than Significant.
Impact 3.11-5: The proposed Project, in combination with cumulative development, would not conflict with an applicable habitat conservation plan or natural community conservation plan.	Less than Significant.	None Required.	Less than Significant.
SECTION 3.12—NOISE			
Impact 3.12-1: The proposed Project has the potential to generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Less than Significant	None Required.	Less than Significant.
Impact 3.12-2: The proposed Project would not generate excessive groundborne vibration or groundborne noise levels.	Less than Significant.	None Required.	Less than Significant.
Impact 3.12-3: The proposed Project is not located within the vicinity of a private airstrip or an airport land use plan, within two miles of a public airport or public use airport, and would not expose people residing or working in the Project area to excessive noise levels.	No Impact.	None Required.	No Impact.
Impact 3.12-4: The proposed Project, combined with cumulative development, could expose existing noise-sensitive land uses to increased noise.	Less than Significant.	None Required.	Less than Significant.
SECTION 3.13—POPULATION, EMPLOYMENT, AND HOUSING			
Impact 3.13-1: Implementation of the proposed Project would not induce substantial population growth in the area, either directly or indirectly.	Less than Significant.	None Required.	Less than Significant.
Impact 3.13-2: Implementation of the proposed Project, in combination with other cumulative development, would not induce substantial population growth in the area, either directly or indirectly, and would not displace a substantial number of people requiring the construction of new housing.	Less than Significant.	None Required.	Less than Significant.

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
SECTION 3.14—PUBLIC SERVICES AND RECREATION			
Impact 3.14-1: Implementation of the Proposed Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities.	Less than Significant.	None Required.	Less than Significant.
Impact 3.14-2: Project implementation may result in effects on schools.	Less than Significant.	None Required.	Less than Significant.
Impact 3.14-3: Project implementation may result in effects on parks.	Less than Significant.	None Required.	Less than Significant.
Impact 3.14-4: Project implementation may result in effects on other public facilities	Less than Significant.	None Required.	Less than Significant.
Impact 3.1-5: Implementation of the proposed Project, in combination with other cumulative development, would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities.	Less than Significant.	None Required.	Less than Significant.
SECTION 3.15—TRANSPORTATION			
Impact 3.15-1: Implementation of the proposed Project could conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	Less than Significant.	None Required.	Less than Significant.




<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
<p>Impact 3.15-2: Implementation of the proposed Project would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) regarding Vehicle Miles Traveled (VMT).</p>	<p>Potentially Significant.</p>	<p>Mitigation Measure 3.15-2: The effectiveness of various VMT mitigation strategies as documented in the literature is summarized in the California Air Pollution Control Officers Association (CAPCOA) Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Change Vulnerabilities, and Advancing Health Equity (CAPCOA Handbook). Table 3.15-6 [of this Draft EIR] summarizes the maximum potential effectiveness of various applicable strategies documented in the CAPCOA Handbook that were considered for potential incorporation into the project.</p>	<p>Significant and Unavoidable.</p>
<p>Impact 3.15-3: Implementation of the proposed Project could substantially increase hazards due to a geometric design feature or incompatible uses.</p>	<p>Less than Significant.</p>	<p>None Required.</p>	<p>Less than Significant.</p>
<p>Impact 3.15-4: Implementation of the proposed Project would not result in adverse impacts due to construction activities.</p>	<p>Less than Significant.</p>	<p>None Required.</p>	<p>Less than Significant.</p>
<p>Impact 3.15-5: Implementation of the proposed Project, in combination with other cumulative development, would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) regarding Vehicle Miles Traveled (VMT).</p>	<p>Cumulatively considerable and significant.</p>	<p>Mitigation Measure 3.15-5: Implement Mitigation Measure 3.15-2.</p>	<p>Significant and Unavoidable.</p>
<p>Impact 3.15-6: Implementation of the proposed Project, in combination with other cumulative development, could substantially increase hazards due to a geometric design feature or incompatible uses.</p>	<p>Less than Significant.</p>	<p>None Required.</p>	<p>Less than Significant.</p>
<p>SECTION 3.16—UTILITIES AND SERVICE SYSTEMS</p>			
<p>Impact 3.16-1: The proposed Project would not result in a determination by the wastewater treatment and/or collection provider which serves the project that the provider does not have adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments.</p>	<p>Less than Significant.</p>	<p>None Required.</p>	<p>Less than Significant.</p>

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
Impact 3.16-2: The proposed Project would not result in the construction of new wastewater treatment or collection facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	Less than Significant.	None Required.	Less than Significant.
Impact 3.16-3: The proposed Project, in combination with other cumulative development, would not exceed the provider's capacity to serve future projected demand in addition to the provider's existing commitments.	Less than Significant.	None Required.	Less than Significant.
Impact 3.16-4: The proposed Project would not require construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	Less than Significant.	None Required.	Less than Significant.
Impact 3.16-5: The proposed Project has sufficient water supplies available to serve the Project from existing entitlements and resources.	Less than Significant.	None Required.	Less than Significant.
Impact 3.16-6: The proposed Project, in combination with cumulative development, would not require construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, or have inadequate water supply.	Less than Significant.	None Required.	Less than Significant.
Impact 3.16-7: The proposed Project would not have the potential to require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	Less than Significant.	None Required.	Less than Significant.
Impact 3.16-8: The proposed Project, in combination with other cumulative development, would not have the potential to require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	Less than Significant.	None Required.	Less than Significant.
Impact 3.16-9: The landfills that would serve the proposed Project have sufficient permitted capacity to accommodate the Project's solid waste disposal needs, and the proposed Project will comply with federal, State, and local statutes and regulations related to solid waste.	Less than Significant.	None Required.	Less than Significant.

<i>IMPACTS</i>	<i>LEVEL OF SIGNIFICANCE BEFORE MITIGATION</i>	<i>MITIGATION MEASURES</i>	<i>LEVEL OF SIGNIFICANCE AFTER MITIGATION</i>
Impact 3.16-10: The landfills that would serve the proposed Project, in combination with other cumulative development, have sufficient permitted capacity to accommodate the Project's and cumulative developments' solid waste disposal needs, and will comply with federal, State, and local statutes and regulations related to solid waste.	Less than Significant.	None Required.	Less than Significant.

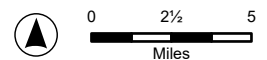


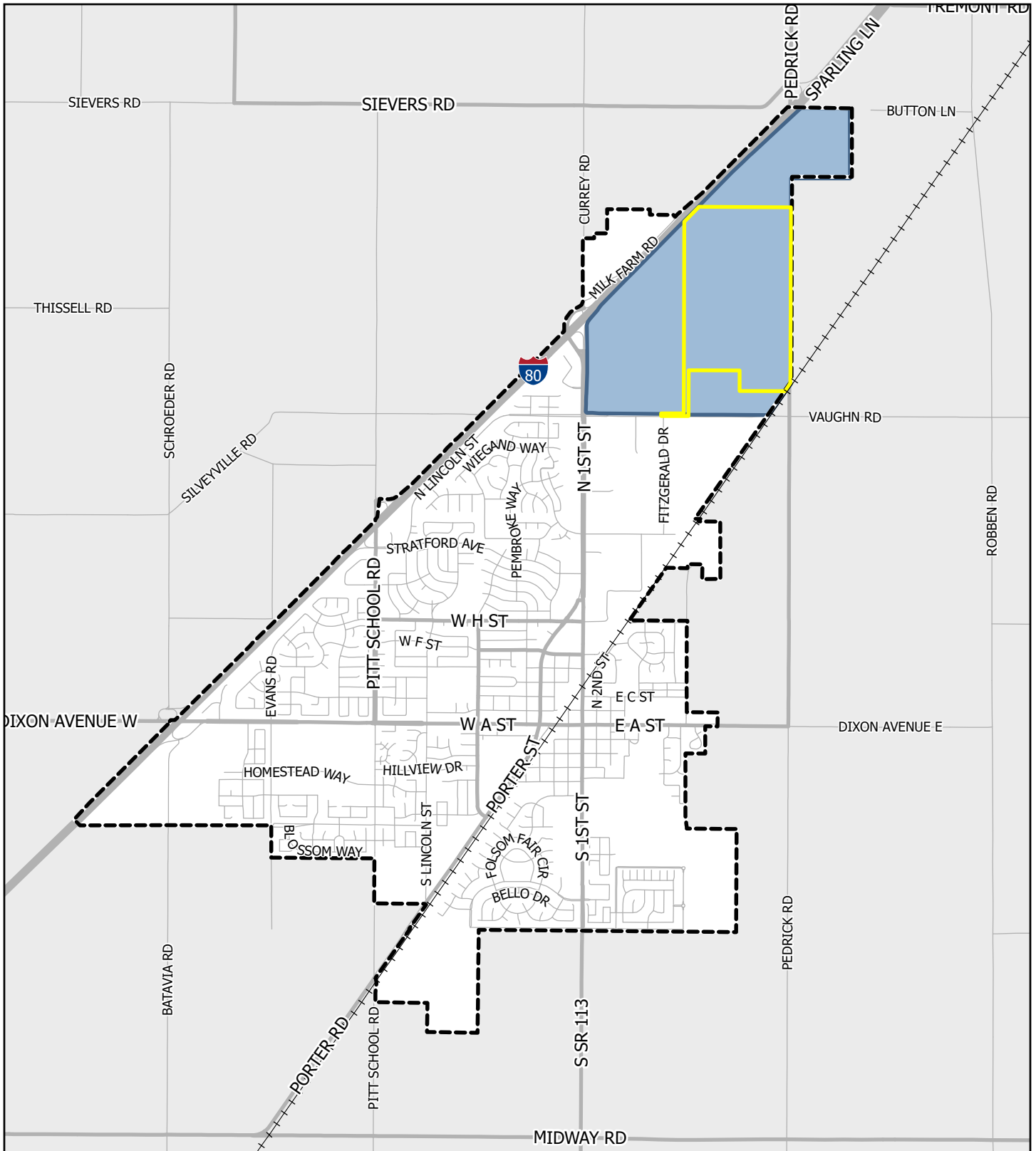
LEGEND

-  Project Location
-  Incorporated Area
-  County Boundary





THE CAMPUS EIR

Figure ES-1. Regional Location Map



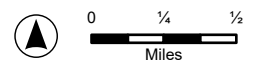


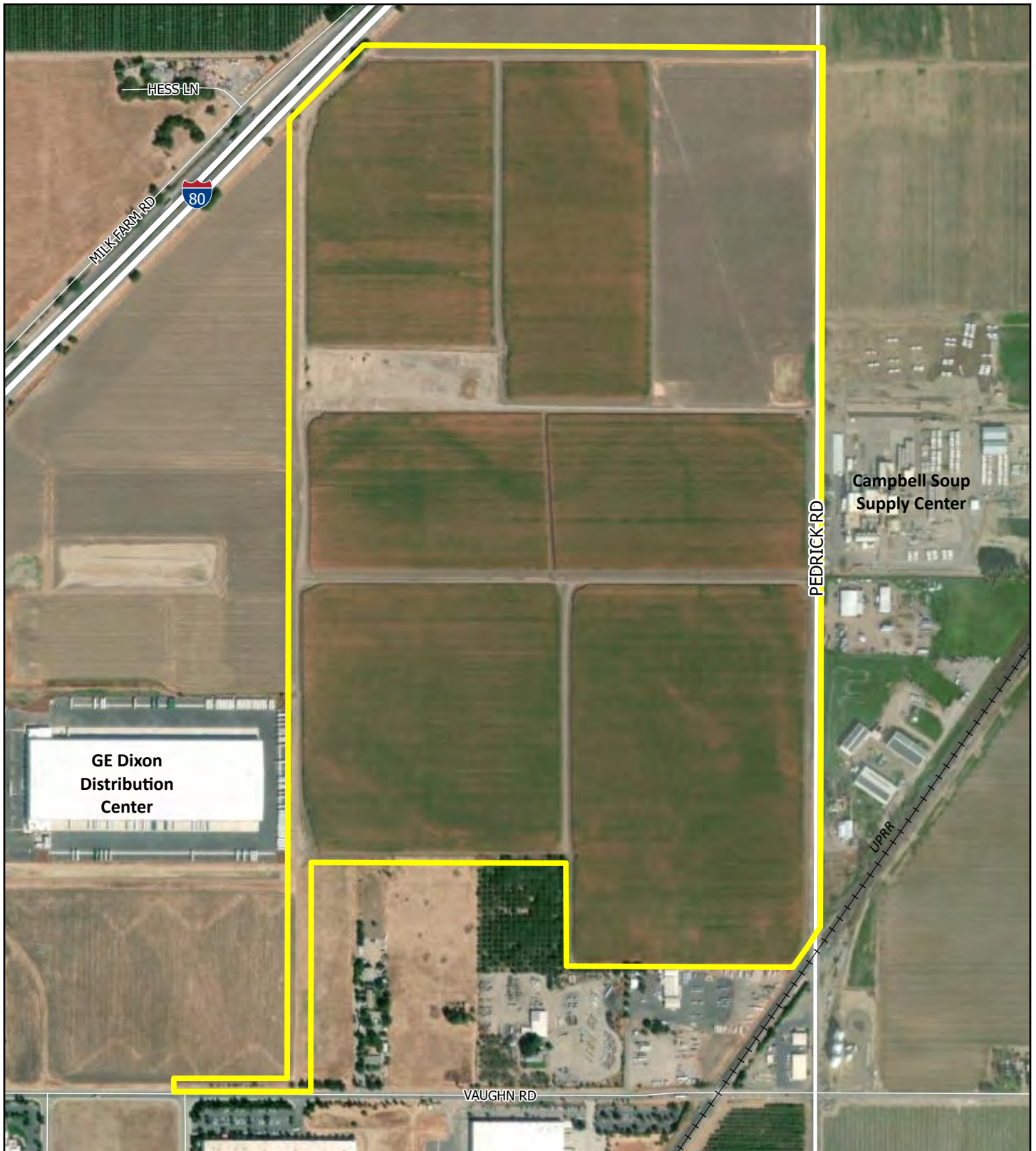
LEGEND

-  City of Dixon
-  The Campus Project Site
-  Northeast Quadrant Specific Plan Area
-  Union Pacific Railroad

THE CAMPUS EIR

Figure ES-2. Project Location





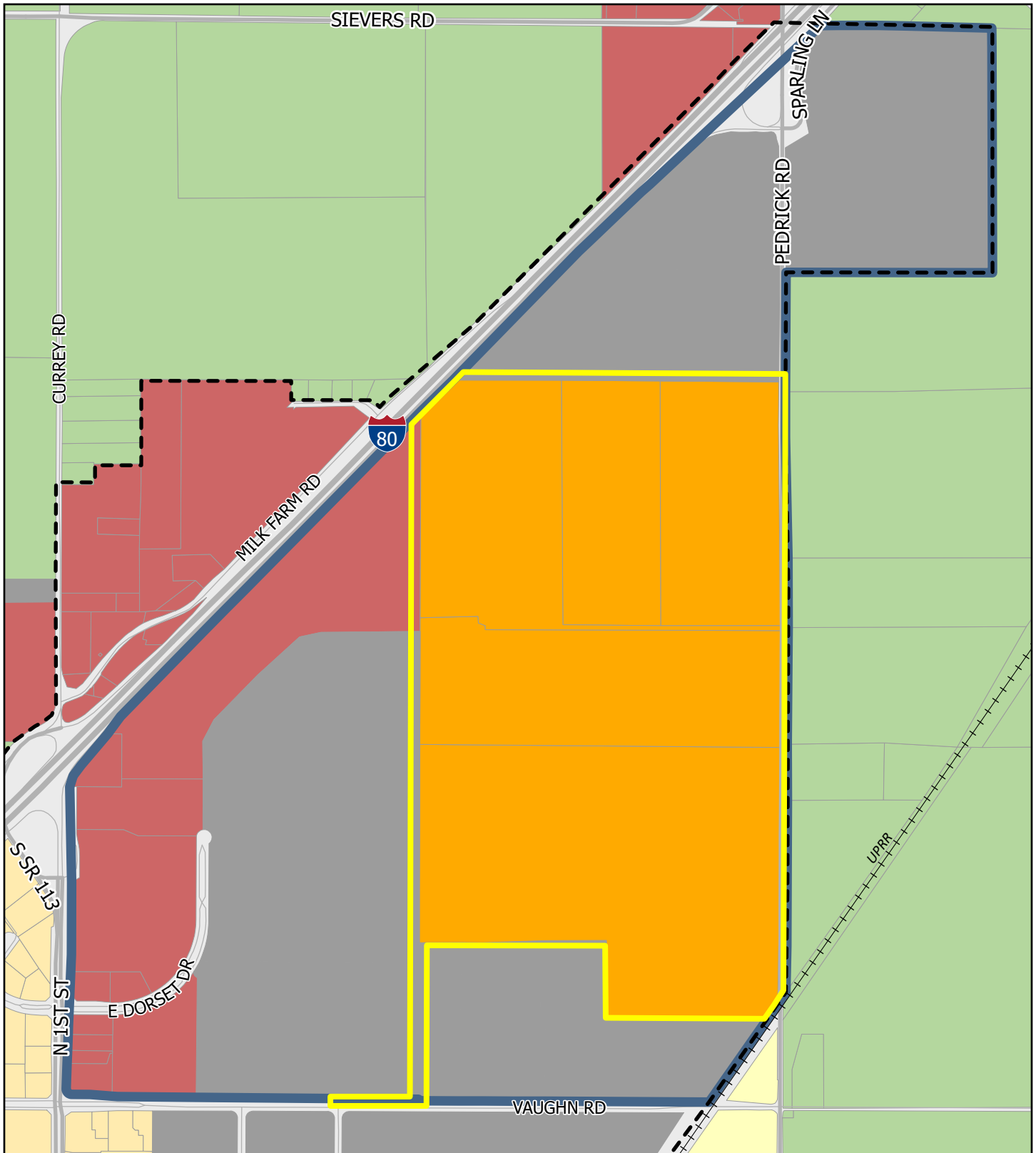
LEGEND

 The Campus Project Site

THE CAMPUS EIR

Figure ES-3. Project Site



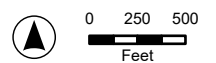


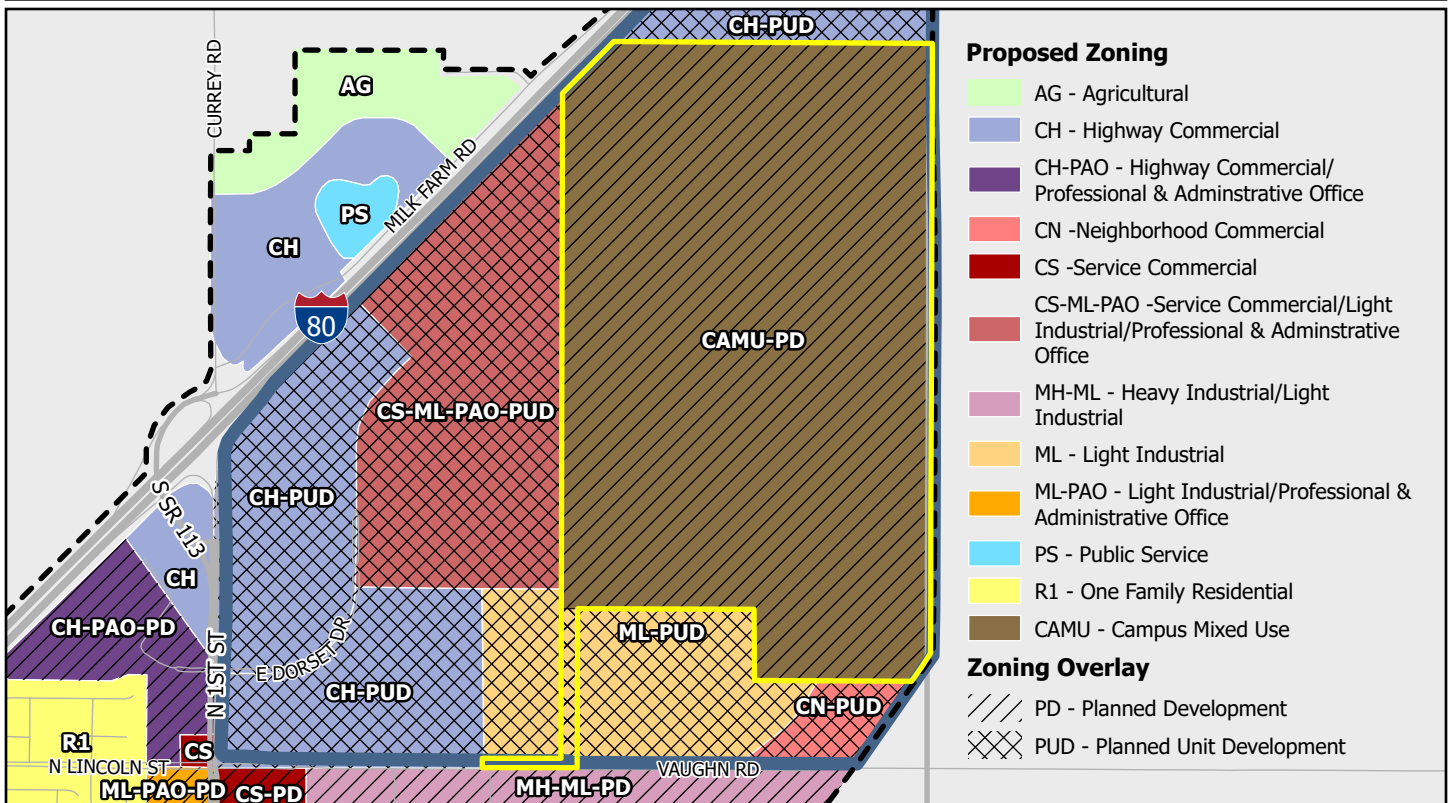
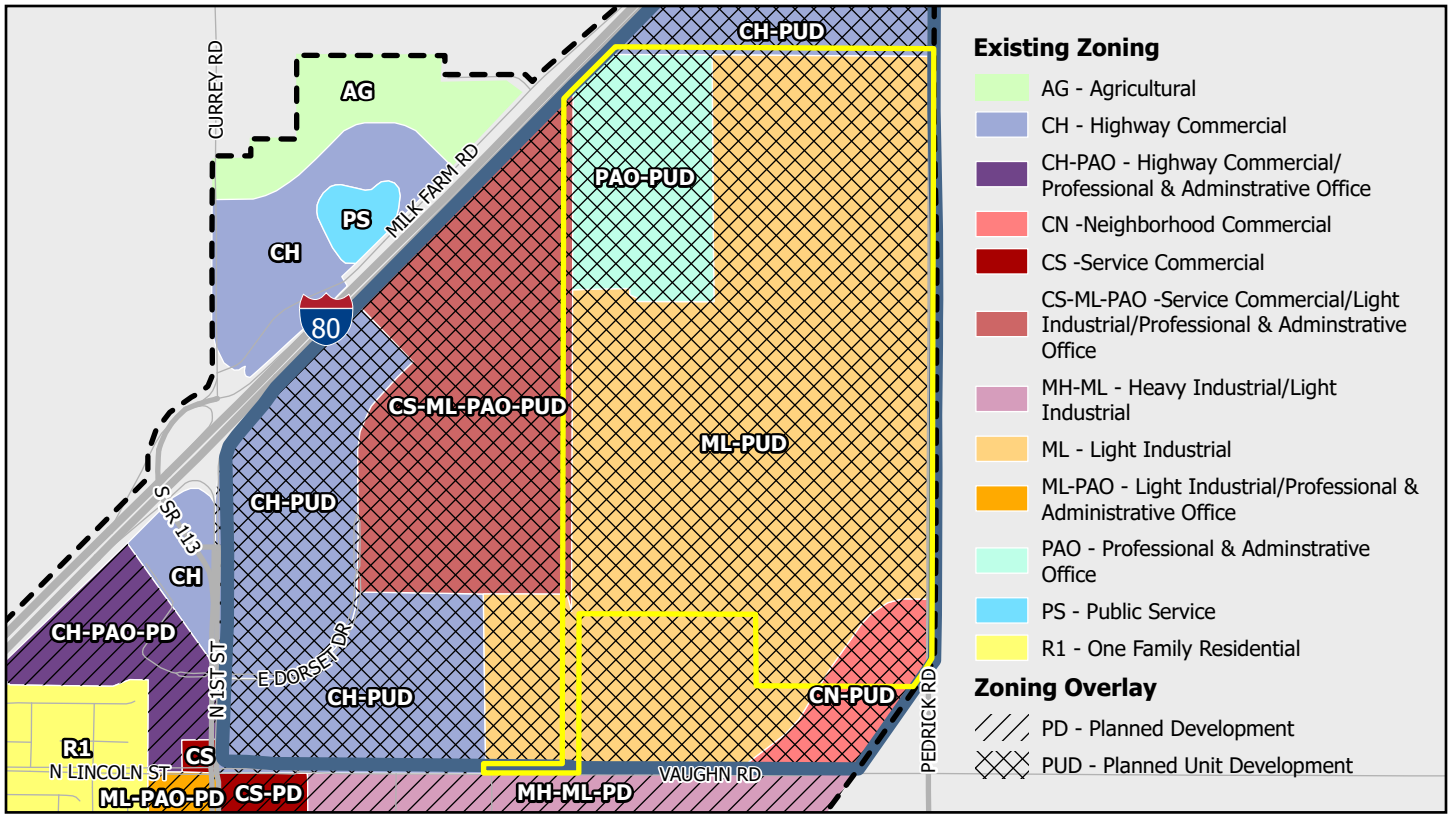
LEGEND

-  City of Dixon
-  Northeast Quadrant Specific Plan Area
-  The Campus Project Site
-  Campus Mixed Use
-  Corridor Mixed Use
-  Regional Commercial
-  Industrial
-  Low Density Residential
-  Medium Density Residential
-  Agricultural (County Designation)

THE CAMPUS EIR

Figure ES-4. Land Use Designations



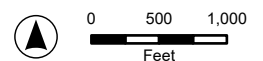


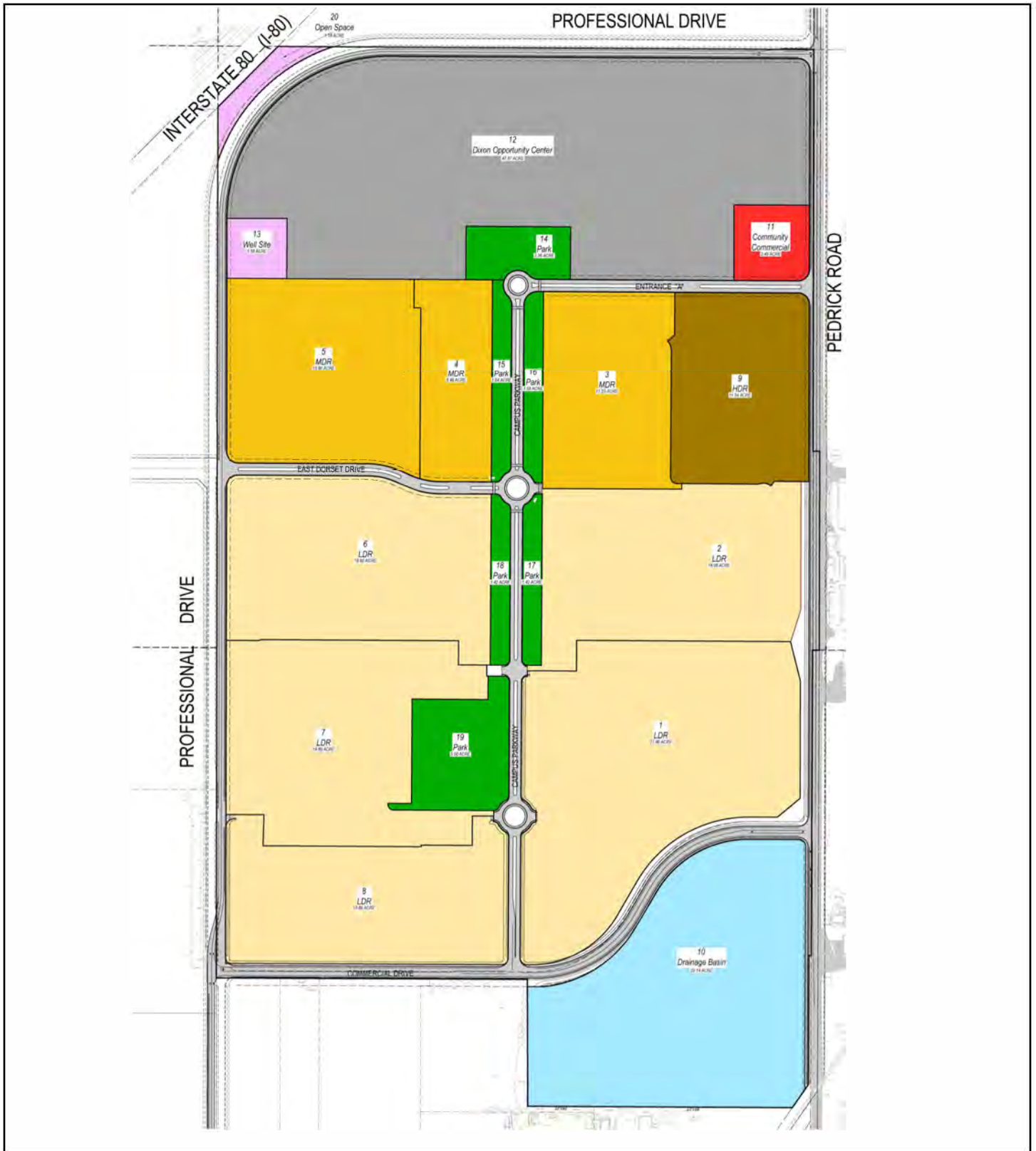
LEGEND

- City of Dixon
- Northeast Quadrant Specific Plan Area
- The Campus Project Site

THE CAMPUS EIR

Figure ES-5. Existing and Proposed Zoning



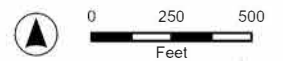


LEGEND

- | | |
|--|--|
| Low Density Residential | Dixon Opportunity Center |
| Medium Density Residential | Park |
| High Density Residential | Drainage Basin |
| Community Commercial | Other |

THE CAMPUS EIR

Figure ES-6. Proposed Land Use Plan



1.1 PURPOSE AND INTENDED USES OF THE ENVIRONMENTAL IMPACT REPORT (EIR)

An EIR must disclose the expected environmental impacts, including impacts that cannot be avoided, growth-inducing effects, impacts found not to be significant, and significant cumulative impacts, as well as identify mitigation measures and alternatives to the proposed project that could reduce or avoid its significant adverse environmental impacts. CEQA requires government agencies to consider and, where feasible, minimize environmental impacts of proposed development.

The City of Dixon, as the lead agency, has prepared this Draft EIR to provide the decisionmakers, the public and the responsible and trustee agencies with an objective analysis of the potential environmental impacts resulting from implementation of the proposed Project. The environmental review process enables interested parties to evaluate the proposed Project in terms of its environmental consequences, to examine and recommend methods to eliminate or reduce potentially significant adverse impacts, and to consider a reasonable range of alternatives to the proposed Project. This EIR is an informational document only and does not by itself approve or deny a project. The EIR will be used as the primary environmental document to evaluate full development, all associated infrastructure improvements, and permitting actions associated with the proposed Project. The decision to certify the EIR is based on compliance with the requirements specified in CEQA Guidelines Section 15090, as determined by the City of Dixon. The decision to approve or deny the Project is a separate action from certifying the EIR, and the EIR will be used by the City of Dixon to determine whether to approve, modify, or deny the proposed Project and associated approvals in light of the Project's environmental effects. All of the actions and components of the proposed Project are described in detail in Chapter 2.0, Project Description.

1.2 TYPE OF EIR

The State CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a Project-level EIR, described in State CEQA Guidelines Section 15161 as: "The most common type of EIR (which) examines the environmental impacts of a specific development project. This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project including planning, construction, and operation." The Project-level analysis considers the broad environmental effects of the proposed Project.

1.3 KNOWN RESPONSIBLE AND TRUSTEE AGENCIES

The term "Responsible Agency" includes all public agencies other than the Lead Agency that have discretionary approval power over the proposed Project or an aspect of the proposed Project (CEQA Guidelines Section 15381). For the purpose of CEQA, a "Trustee" agency has jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California (CEQA Guidelines Section 15386).

The following agencies are considered “Responsible Agencies” or “Trustee Agencies” for the proposed Project, and may be required to issue permits or approve certain aspects of the proposed Project:

- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- California Department of Transportation
- California Department of Fish and Wildlife
- Central Valley Regional Water Quality Control Board
- Pacific Gas and Electric Company
- Yolo-Solano Air Quality Management District (YSAQMD)

1.4 ENVIRONMENTAL REVIEW PROCESS

The review and certification process for the EIR has involved, or will involve, the following general procedural steps:

NOTICE OF PREPARATION AND INITIAL STUDY

The City of Dixon circulated a Notice of Preparation (NOP) of an EIR for the proposed Project on August 30, 2023 to the State Clearinghouse, State Responsible Agencies, State Trustee Agencies, Other Public Agencies, Organizations and Interested Persons. A public scoping meeting was held on September 20, 2023 to present the project description to the public and interested agencies, and to receive comments from the public and interested agencies regarding the scope of the environmental analysis to be included in the Draft EIR. The 30-day NOP public comment period concluded on September 29, 2023. Concerns raised in response to the NOP were considered during preparation of the Draft EIR. The NOP and comments received on the NOP by interested parties are presented in Appendix A.

DRAFT EIR

This document constitutes the Draft EIR. The Draft EIR contains a description of the proposed Project, description of the environmental setting, identification of project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of project alternatives, identification of significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. This Draft EIR identifies issues determined to have no impact or a less than significant impact, and provides detailed analysis of potentially significant and significant impacts. Comments received in response to the NOP were considered in preparing the analysis in this EIR. Upon completion of the Draft EIR, the City of Dixon will file the Notice of Completion (NOC) with the State Clearinghouse of the Governor’s Office of Planning and Research to begin the public review period. Additionally, the City of Dixon will file the Notice of Availability with the County Clerk and have it published in a newspaper of regional circulation to begin the local public review period.

PUBLIC NOTICE/PUBLIC REVIEW

The City of Dixon will provide a public notice of availability for the Draft EIR, and invite comment from the general public, agencies, organizations, and other interested parties. Consistent with CEQA, the review period for this Draft EIR is forty-five (45) days. Public comment on the Draft EIR will be accepted in written form. All comments or questions regarding the Draft EIR should be addressed to:

Brian Millar, Contract Planner
City of Dixon Community Development Department
600 East A St.
Dixon, CA 95620
bmillar@cityofdixon.us

RESPONSE TO COMMENTS/FINAL EIR

Following the public review period of the Draft EIR, a Final EIR will be prepared. The Final EIR will respond to written comments received during the public review period and to oral comments received at any public hearing that may be held during such review period.

CERTIFICATION OF THE EIR/PROJECT CONSIDERATION

The City of Dixon will review and consider the Final EIR. If the City of Dixon finds that the Final EIR is "adequate and complete," the City of Dixon will certify the Final EIR in accordance with CEQA. The rule of adequacy generally holds that an EIR can be certified if:

- 1) The EIR shows a good faith effort at full disclosure of environmental information; and
- 2) The EIR provides sufficient analysis to allow decisions to be made regarding the proposed project in contemplation of environmental considerations.

Following review and consideration of the Final EIR, the City of Dixon may take action to approve, modify, or reject the proposed Project. A Mitigation Monitoring and Reporting Program, as described below, would also be adopted in accordance with Public Resources Code Section 21081.6(a) and CEQA Guidelines Section 15097 for mitigation measures that have been incorporated into or imposed upon the proposed Project to reduce or avoid significant effects on the environment. This Mitigation Monitoring and Reporting Program will be designed to ensure that these measures are carried out during project implementation, in a manner that is consistent with the EIR. Further, the City of Dixon must prepare a Findings of Fact to summarize the environmental effects of the proposed Project. If significant and unavoidable impacts are identified in the EIR, the City must also prepare a Statement of Overriding Considerations which provides rationale for overriding the significant environmental impacts in light of other identified benefits, such as social or economic reasons.

1.5 ORGANIZATION AND SCOPE

Sections 15122 through 15132 of the CEQA Guidelines identify the content requirements for Draft and Final EIRs. An EIR must include a description of the project and its environmental setting, an environmental impact analysis, mitigation measures, alternatives, significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. Discussion of the environmental issues addressed in the Draft EIR was established through review of environmental and planning documentation developed for the proposed Project, environmental and planning documentation prepared for recent projects located within the City of Dixon, applicable local and regional planning documents, and responses to the Notice of Preparation (NOP).

This Draft EIR is organized in the following manner:

EXECUTIVE SUMMARY

The Executive Summary summarizes the characteristics of the proposed project, known areas of controversy and issues to be resolved, and provides a concise summary matrix of the proposed Project's environmental impacts and possible mitigation measures. The Executive Summary also identifies the alternatives that reduce or avoid at least one significant environmental effect of the proposed Project.

CHAPTER 1.0 – INTRODUCTION

Chapter 1.0 briefly describes the purpose of the environmental evaluation, identifies the lead, trustee, and responsible agencies, summarizes the process associated with preparation and certification of an EIR, and identifies the scope and organization of the Draft EIR.

CHAPTER 2.0 – PROJECT DESCRIPTION

Chapter 2.0 provides a detailed description of the proposed Project, including the location, intended objectives, background information, the physical and technical characteristics, including the decisions subject to CEQA, related improvements, and a list of related agency action requirements.

CHAPTER 3.0 – ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Chapter 3.0 contains an analysis of environmental topic areas as identified below. Each subchapter addresses a topical area and is organized as follows:

Environmental Setting. A description of the existing environment as it pertains to the topical area.

Regulatory Setting. A description of the regulatory environment that may be applicable to the proposed Project.

Impacts and Mitigation Measures. Identification of the thresholds of significance by which impacts are determined, a description of project-related impacts associated with the environmental topic,

identification of appropriate mitigation measures, and a conclusion as to the significance of each impact.

The following environmental topics are addressed in this section:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural and Tribal Resources
- Energy
- Geology, Soils, and Seismicity
- Greenhouse Gases and Climate Change
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation
- Utilities and Service Systems

As discussed in Chapter 6.0, Effects Found Not To Be Significant, impacts related to Forestry Resources, Mineral Resources, and Wildfire were determined to be less than significant.

CHAPTER 4.0 – OTHER CEQA-REQUIRED TOPICS

Chapter 4.0 evaluates and describes the following CEQA required topics: impacts considered less-than-significant, significant and irreversible impacts, growth-inducing effects, cumulative, and significant and unavoidable environmental effects.

CHAPTER 5.0 – ALTERNATIVES TO THE PROJECT

CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the proposed Project, which could feasibly attain the basic objectives of the proposed Project and avoid and/or lessen any significant environmental effects of the proposed Project. Chapter 5.0 provides a comparative analysis between the environmental impacts of the proposed Project and the selected alternatives.

CHAPTER 6.0 – EFFECTS FOUND NOT TO BE SIGNIFICANT

This section presents information about the proposed Project's impact on specific environmental topic areas that were determined to have no impact. During this evaluation, certain impacts of the Project were found to have no impact or be less than significant due to the inability of the Project to create such impacts or the absence of Project characteristics producing effects of this type.

CHAPTER 7.0 – REPORT PREPARERS

This section lists all authors and agencies that assisted in the preparation of the EIR, by name, title, and company or agency affiliation.

APPENDICES

This section includes all notices and other procedural documents pertinent to the EIR, as well as technical material prepared to support the analysis.

1.6 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

The City of Dixon received eight written comment letters on the NOP for the proposed Project from the agencies listed below. Copies of those NOP comment letters are provided in Appendix A of this Draft EIR. The commenting agency/citizen is provided below. The City also held a public scoping meeting on September 20, 2023. No written or verbal comments were provided at that scoping meeting.

- California Department of Transportation (Caltrans)
- California Department of Fish and Wildlife (CDFW)
- City of Davis
- Central Valley Regional Water Quality Control Board (CVRWQCB)
- Dixon Resource Conservation District
- Native American Heritage Commission (NAHC)
- Pacific Gas & Electric Company (PG&E)
- Solano County

1.7 POTENTIAL AREAS OF CONCERN

Aspects of the proposed Project that could be of public concern include the following:

- The type and amount of agricultural land converted to urban uses;
- Impacts on any current and future agricultural operations in the vicinity;
- Potential land use conflicts between existing offsite agricultural operations and manufacturing uses and residential uses proposed by the Project;
- Potential impacts to hydrology and storm water;
- Effects to biological species and habitat; and
- Potential localized traffic impacts.

This chapter presents information regarding the components and characteristics of the proposed Project and the discretionary approvals anticipated to implement the Project. A concise outline of the Project's elements is provided in the Summary. The Project analyzed in this draft environmental impact report (Draft EIR) is the proposed The Campus Project. The Northeast Quadrant Specific Plan (NEQSP) document, which would be revised as a result of the proposed Project, is available for review at the City of Dixon (City) Community Development Department's service counter and online at <https://www.cityofdixon.us/EnvironmentalReviewDocuments>. The proposed The Campus Project provides guidance for the development of a portion of the NEQSP area. This Project description identifies all of the following:

- The location of the proposed The Campus Project.
- Land uses proposed by The Campus Project.
- The scenario analyzed in this Draft EIR based on the allowed land uses.
- The off-site infrastructure required to support the proposed Project.
- Other components of Project implementation that are covered by this Draft EIR.
- The discretionary approvals required for implementation of the proposed Project.

2.1 PROJECT LOCATION

The City is located in the Central Valley region of Northern California, along the Interstate 80 (I-80) freeway corridor, with the cities of Davis and Sacramento located approximately six miles and 25 miles to the northeast, respectively, and the cities of Vacaville and San Francisco located approximately 15 miles and 65 miles to the west, respectively, as shown on **Figure 2-1**.

The Campus Project site is located within the City's NEQSP and comprises nearly 40 percent of the plan's total 643+/- acres. The Project site is located on the eastern edge of the NEQSP adjacent to Pedrick Road, as shown in **Figure 2-2**. The Project site is comprised of APNs 0111-040-010, -020, -030, -040, and 0111-080-050, contains a total of 260 +/- acres (**Figure 2-3**). The site is bounded by Pedrick Road with Solano County unincorporated Agricultural lands to the east, by Industrial designated lands to the north and south, and lands designated as Regional Commercial and Industrial to the west, as shown on **Figure 2-4**.

The Project site is currently zoned as Professional & Admin Office (PAO-PUD), Neighborhood Commercial (CN-PUD), and Light Industrial (ML-PUD), and would be rezoned to Campus Mixed Use Planned Development (CAMU-PD) consistent with the property's General Plan land use designation of Campus Mixed Use (CAMU) in effect at the time of the Project's application (**Figure 2-5**).

2.2 PROJECT OBJECTIVES

California Environmental Quality Act (CEQA) Guidelines Section 15124(b) requires that an EIR project description include a statement of the objectives from an applicant intended to be achieved by the Project. The objectives describe the purpose of the Project and are intended to assist the lead agency in developing a reasonable range of alternatives for consideration in the EIR, and to assist the decision makers in assessing the feasibility of mitigation measures and alternatives. The objectives of The Campus Project from the applicant are:

1. Create a Project consistent with the Property's Campus Mixed Use General Plan designation.
2. Expand and enhance the City's employment base and reduce the City's current jobs/housing imbalance thereby contributing to the City's economic development goals.
3. Create a campus neighborhood where residential units support the employment-based uses.
4. Create a neighborhood providing residents the opportunity to walk or bike to work in the neighborhood's employment area.
5. Provide a mix of housing and densities, including apartments, small lot and larger lot single family homes.
6. Create home ownership opportunities for the missing middle.
7. Create rental residential opportunities adjacent to employment uses.
8. Create an employment base area that will be more attractive to employers due to the proximity of complementary residential uses.
9. Provide a residential unit count necessary to pay the cost of extending needed infrastructure to the employment base portion of the Project and the remaining undeveloped properties in the Northeast Quadrant Specific Plan.
10. Provide stormwater management facilities that address the impacts of the Project, but also opportunities for more regional stormwater management facilities.

2.3 PROJECT DESCRIPTION

The Campus proposes a mixed-use development planned to implement the intent of the City's recently created Campus Mixed Use General Plan designation. As defined by the City's 2040 General Plan, the intent of the Campus Mixed Use designation is "... to foster new mixed employment districts with a range of job-generating uses, housing, and easy access to the regional transportation network."

The proposed Project would consist of a phased, mixed-use development that includes an approximately 48-acre Dixon Opportunity Center (DOC), approximately 144 acres of residential uses, and approximately 2.5 acres of commercial uses (**Figure 2-6**). A high-density residential site would be located contiguous to the DOC, and adjacent residential uses. A service commercial site would be located in the southeast corner of the DOC and adjacent to the high-density residential site. The southern portion of the site would consist of medium density and low-density residential uses. **Table 2-1** describes the preliminary land use summary.

TABLE 2-1: PROPOSED LAND USE SUMMARY

PARCEL	LAND USE	ZONING	GROSS AREA (ACRES)	DWELLING UNITS		CAMU LAND USE
				DENSITY (DU/AC)	DUs (UNITS)	
RESIDENTIAL						
LOT 1	CAMU	CAMU-PD	27.90	4.6	128	LDR
LOT 2	CAMU	CAMU-PD	18.05	5.3	95	LDR
LOT 3	CAMU	CAMU-PD	11.23	8.7	98	MDR
LOT 4	CAMU	CAMU-PD	6.46	9.3	60	MDR

PARCEL	LAND USE	ZONING	GROSS AREA (ACRES)	DWELLING UNITS		CAMU LAND USE
				DENSITY (DU/AC)	DUs (UNITS)	
LOT 5	CAMU	CAMU-PD	15.80	7.6	120	MDR
LOT 6	CAMU	CAMU-PD	18.80	6.9	130	LDR
LOT 7	CAMU	CAMU-PD	18.89	5.1	96	LDR
LOT 8	CAMU	CAMU-PD	15.60	5.7	89	LDR
LOT 9	CAMU	CAMU-PD	11.54	19.5	225	HDR
Residential Total:			144.27	7.2	1,041	
COMMERCIAL AND EMPLOYMENT USES						
Service Commercial						
LOT 11	CAMU	CAMU-PD	2.49			CC
Sub-Total:			2.49			
Light Industrial (Dixon Opportunity Center)						
LOT 12	CAMU	CAMU-PD	47.87			T/BP-LI
Sub-Total:			47.87			
Commercial and Employment Total:			50.36			
PARKS, OPEN SPACE & PUBLIC USES						
Parks and Open Space						
LOT 14	CAMU	CAMU-PD	2.36			P/R
LOT 15	CAMU	CAMU-PD	1.64			P/R (Paseo)
LOT 16	CAMU	CAMU-PD	1.58			P/R (Paseo)
LOT 17	CAMU	CAMU-PD	1.42			P/R (Paseo)
LOT 18	CAMU	CAMU-PD	1.42			P/R (Paseo)
LOT 19	CAMU	CAMU-PD	5.00			P/R
Parks and Open Space Total:			13.42			
Public						
LOT 10 (Detention Pond)	CAMU	CAMU-PD	25.14			P/QP
LOT 13 (Well Site)	CAMU	CAMU-PD	1.58			P/QP
LOT 20 (Drainage Channel)	CAMU	CAMU-PD	1.18			P/QP
Public / Quasi-Public Total:			27.90			
ROADS / R.O.W.		CAMU-PD	23.66			
TOTAL						
The Campus Total:			259.61		1,041	

SOURCE: CITY OF DIXON 2023; DE NOVO PLANNING GROUP 2023.

DIXON OPPORTUNITY CENTER

The 47.87-acre DOC would be a large employment area developed to accommodate technology, business park, and light industrial uses. Approximately 660,000 square feet (sf) could be developed within the DOC. The intent of this area is to foster new mixed-use employment districts with a range of job-generating and other tax revenue generating uses. Clusters of related light industrial, manufacturing, office, and research and development uses are envisioned. Large and small scale industrial, manufacturing, office, research, heavy commercial uses, and other related uses could be developed as these critical uses grow within Dixon.

RESIDENTIAL USES

A total of nine lots are planned to accommodate market-rate low-, medium-, and high-density residential uses (**Figure 2-7**). Residential uses would be sited in the southern portion of the Project site. Up to 1,041 residential units are planned.

Five lots – Lots 1, 2, 6, 7, and 8 – would be designated for low density residential uses, with density ranges between 4.6 dwelling units per acre (du/ac) and 6.9 du/ac. Low-density residential units would be typical single-family detached units with varying lot and product sizes, totaling 538 units.

Three lots – Lots 3, 4, and 5 – would be designated for medium density residential (MDR) uses. Units in those lots would range in density from 7.6 du/ac to 9.3 du/ac, totaling 278 units. The MDR land use is anticipated to accommodate urban density housing with a strong orientation toward the street. Unit types could include single family attached or detached units facing the public street, and brownstones, townhomes, and condominiums. Varying lot and product sizes would provide a diversity of housing options. Units may be accessed via a rear alley or auto court.

Lot 9, in the eastern part of the Project site, immediately south of the DOC, would be comprised of high-density residential (HDR) uses. The 11.54-acre HDR use would be constructed at a density of 19.5 du/ac, resulting in up to 225 units. The HDR land use is intended to accommodate attached multifamily housing. Similar to the MDR designation, HDR units are required to have a strong orientation toward the street. A variety of higher density housing types would be appropriate if designed with front forward architecture which includes front entry doors and porches facing the street, and off-street parking located in the rear of the lot and accessed from alleys or internal driveways. Typical unit types may include apartments, townhomes and condominiums.

SERVICE COMMERCIAL

The Service Commercial (SC) land use is anticipated to accommodate a variety of retail and service activities. The SC land use would be 2.49 acres and accommodate up to 27,000 square feet of retail commercial space. Typical uses may include retail shops, restaurants, local pubs, banks, grocery stores, convenience services, and offices. These uses, within walking distance to the DOC and residential areas, are planned to meet the everyday needs of local residents and promote non-vehicular forms of transportation. The intent is to provide for a unique mix of uses that support The Campus concept.

PARKS AND OPEN SPACE

Approximately 13.42 acres of open space, parks, paseos, and green space are planned in The Campus. The Campus would provide public and quasi/public spaces for people to gather and to reinforce community identity. The centrally located Campus Green, a 6.06-acre traditional urban park element connecting the tech park to the low-density residential area in the southern portion of the Project site, would provide the visual focus of The Campus. The Campus Green is intended to accommodate passive recreation, provide a visual respite for residents, shoppers and employees, and form a community gathering place. It would include a central park pavilion as a venue for a wide variety of community activities, including concerts, fairs, exhibits, markets and other events that would bring the community to The Campus. The north end of the Campus Green would be anchored by a 2.36-acre park within the DOC. A second park site, a 5-acre neighborhood park, would be included on the south end of the Campus Green in the planned low-density residential area.

INFRASTRUCTURE

Water Facilities

Domestic water service would be distributed throughout the NEQSP plan area and The Campus by new water lines located within the surrounding roadway system including Professional Drive, Campus Parkway, and the Commercial Drive realignment (**Figure 2-8**). The Project is estimated to have an Average Water Demand of 562.7 acre-feet per year with a Peak Hour Demand of 1.658 million gallons per day (mgd). A 1.58-acre municipal water well site is proposed on the north side of the Project site adjacent to Professional Drive. The 1,500 gpm (minimum design capacity) municipal water well would be constructed with the initial phase of the development and the site is sized for a future water tank site. This site may also hold a future water tank (1.58 acres); however, a new water tank is not part of the proposed Project.

Wastewater Facilities

The proposed NEQSP amendment includes modifications to the wastewater collection system to better serve The Campus (**Figure 2-9**). The Project site is included in the North First Street Assessment District (NFSAD) and was previously assessed for the sewer oversizing from Vaughn Road to Hall Park. Under the NFSAD, the Project site was allocated 1.17 mgd peak wet weather flow (PWWF). The proposed Project is anticipated to produce 1.06 mgd (PWWF) being less than the allocated capacity. A wastewater alignment to serve the development is located within Professional Drive which runs from Vaughn Road to the site's northern boundary. The existing sewer trunk line would convey sewer flows from Vaughn Road to the City's Wastewater Treatment Plant south of the city. Sewer infrastructure depths would vary from 8 to 20 feet in depth.

Drainage/Stormwater Control

The proposed NEQSP amendment defines a Conceptual Drainage Plan solution for the NEQSP area that includes defining a stand-alone drainage solution for The Campus (**Figure 2-10**). This solution proposes the use of the onsite land area south of Commercial Drive for a new retention basin within the NEQSP plan area that would meet the specific needs of The Campus and allow the proposed Project to develop independent of the surrounding properties in the NEQSP area. The proposed retention basin would be

25.14 acres with a volume of approximately 255 acre feet. As a separate future project, the proposed retention basin may be expanded and converted from the Project-proposed retention basin to a City detention basin once the identification of the final city-wide regional storm drainage and conveyance system solution for the NEQSP area is identified. If a future city-wide storm drainage solution is pursued, the basin expansion would increase basin capacity to 360 acre feet of storage and would be utilized for the remaining undeveloped NEQSP properties west of Pedrick Road. The proposed basin would have an outfall to the existing culvert at Pedrick Road which is tributary to the Tremont 3 drainage facility. The underlying land use for the detention basin would be CAMU, per the current proposed amendment to the NEQSP and consistent with the General Plan's CAMU land use designation of the Project site. A drainage channel in the northwest corner of the Project site, between I-80 and Professional Drive, would further accommodate the bypass of offsite stormwater.

ACCESS AND CIRCULATION

Current property access consists of an existing roadway (Pedrick Road) along the eastern boundary of the site. Per the NEQSP, a future four-lane arterial (Professional Drive) would be located along the site's western and northern boundaries. As provided for in the NEQSP and prior entitlements to the west of the site, the planned extension of Dorset Drive would connect to Professional Drive near the center of The Campus providing the opportunity for direct visual and vehicular/pedestrian connectivity to the numerous commercial and industrial uses currently under development to the west of the Project site. Campus Parkway would form the north-south spine of The Campus' circulation network.

Also, as defined in the proposed amendment to the NEQSP, the planned Vaughn Road cut-off at the southern end of the Project site is proposed as "Commercial Drive" as defined in the original NEQSP. This would allow traffic to travel from Professional Drive to Pedrick Road and allow for the termination of Vaughn Road and eliminating the Vaughn Road Railroad crossing. The intersection of Commercial Drive and Pedrick Road would be located such that it allows maximum flexibility to address the future Pedrick Road over-crossing of the railroad located at the extreme southeastern corner of the Project site.

The Project proposes the construction of eastern and southern halves of the future four-lane arterial for Professional Drive allowing for two-lanes (one in each direction). Professional Drive would be extended south along the west side of the roadway to provide a connection to existing Vaughn Road. Additionally, the Project would construct the widening of Pedrick Road adjacent to the Project frontage.

2.4 PROJECT PHASING

The Campus would ultimately be constructed in three phases to allow for its orderly development (**Figure 2-11**). Buildout of the Project is anticipated to occur over approximately eight years, and would be based on demand for the particular land use components of The Campus and general market conditions. A Large-Lot Vesting Tentative Subdivision Map would be utilized to facilitate the development phasing and financing of the required infrastructure improvements along with dedication of roadways as and when appropriate.

PHASE 1 IMPROVEMENTS

- Construct sewer from Vaughn Road to the project site along Professional Drive.
- Construction drainage retention basin.
- Construction of an off-site drainage by-pass ditch along the south side of Phase 1 (similar alignment to the existing agricultural ditch) from the west Project limits to Pedrick Road at the existing culvert crossing.
- Construction of a 1,500 gpm municipal well.
- Extend 12" water line from well site to the existing 12" water line in Vaughn Road.
- Construct a second 12" water line connection to the existing city system. Several alternative alignments for the second water connection are allowed.
- Construct east half of Professional Drive adjacent to the Phase 1 and Phase 2 Project areas to the south line of the Dixon Opportunity Center, providing access to the southwestern end of the DOC with Phase 1.
- Construct the west half of Professional Drive from Commercial Drive to Vaughn Road.
- Construct Pedrick Road frontage improvements and roadway widening from Professional Drive to the south side of Phase 1, providing access to the eastern edge of the DOC with Phase 1.
- Construct Campus Parkway to the south line of Phase 1.
- Construct Entrance 'A' roadway from Campus Parkway to Pedrick Road, providing access to the southern edge of the DOC with Phase 1.
- Construct E. Dorset Drive from Professional Drive to Campus Parkway.
- Construction of streetlights, joint trench utilities, water, sewer and drainage facilities and appurtenances with the Phase 1 roadways.
- Construction of residential villages for Lots 2, 4, 5, and 6.
- Construction of park improvements for Lots 15, 17, and 18.
- Begin construction of Dixon Opportunity Center.

PHASE 1A IMPROVEMENTS

- Construct the east and south half of Professional Drive from the terminus point of Phase 1 to Pedrick Road.
- Construction of streetlights, joint trench utilities, water, sewer and drainage facilities and appurtenances with the Phase 1A roadways.
- Construction of Dixon Opportunity Center and commercial parcels, Lots 11 and 12.
- Construction of park improvement for Lot 14.

PHASE 2 IMPROVEMENTS:

- Construct Pedrick Road frontage improvements and roadway widening from the terminus of Phase 1 to Commercial Drive.

- Construct Commercial Drive from Professional Drive to Pedrick Road.
- Construction of streetlights, joint trench utilities, water, sewer and drainage facilities and appurtenances with Phase 2 roadways.
- Construction of residential villages for Lots 1, 3, 7, 8, and 9.
- Construction of park improvements for Lots 16 and 19.
- Construction of Dixon Opportunity Center and commercial parcels Lots 11 and 12.
- Construction of park improvement for Lot 14.

2.5 PROJECT APPROVALS AND ENTITLEMENTS

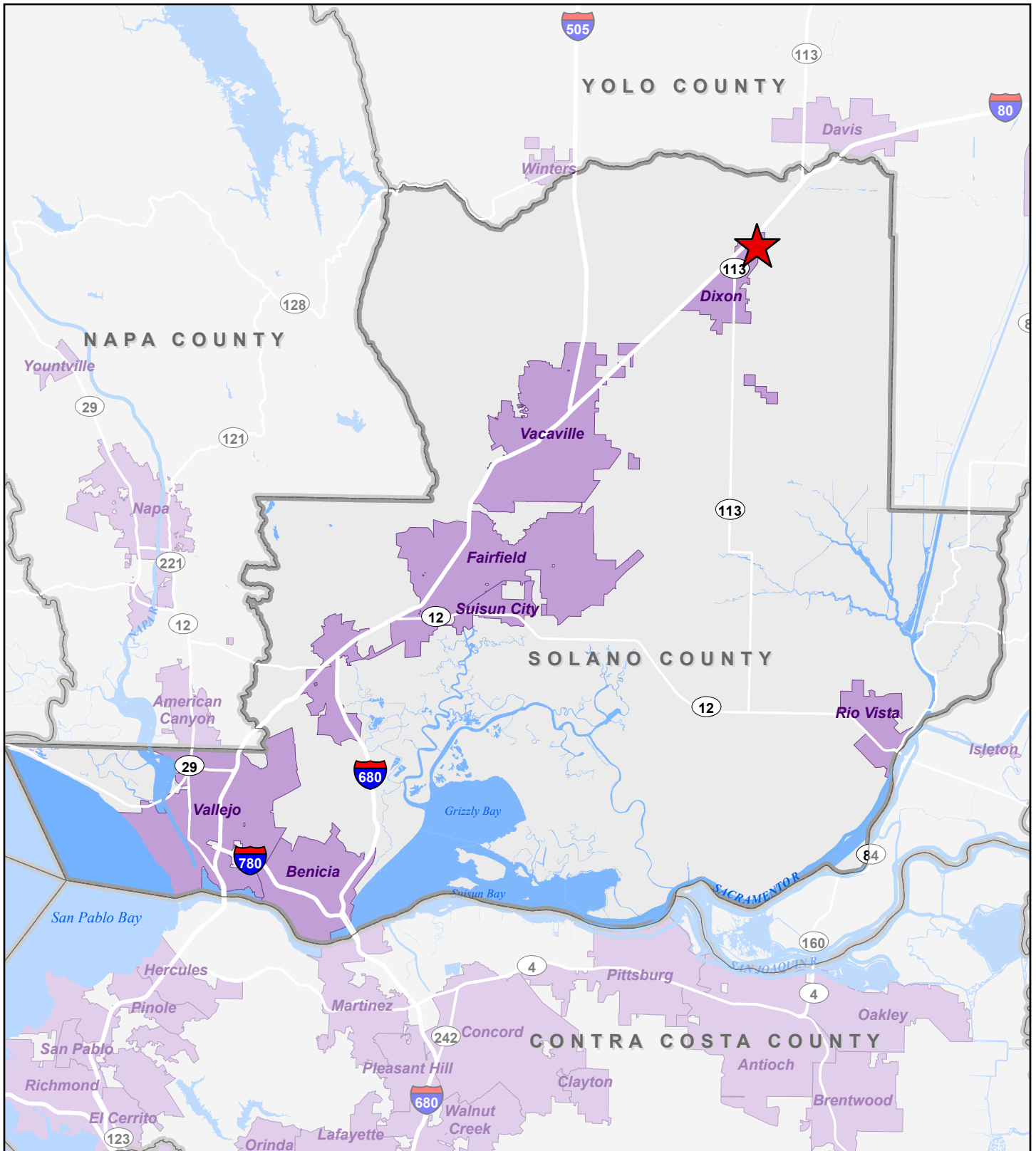
The Campus Project would require numerous approvals from the City of Dixon, requiring Planning Commission review with final action by the City Council:

- Amendment of the Northeast Quadrant Specific Plan (NEQSP);
- Rezoning of the Project site from Professional & Admin Office (PAO-PUD), Neighborhood Commercial (CN-PUD), and Light Industrial (ML-PUD) to Campus Mixed Use Planned Development (CAMU-PD), consistent with the City's recently adopted 2040 General Plan;
- Large-Lot Vesting Tentative Subdivision Map;
- Establish Planned Development standards, including Design Guidelines; and
- Development Agreement.




2.6 RESPONSIBLE AGENCIES

This EIR is intended to be used by responsible and trustee agencies (as defined by Sections 15381 and 15386 of the CEQA Guidelines) that may have review or discretionary authority over subsequent individual projects implemented under the proposed Project. Agencies other than the lead agency that also may use this EIR in their review of subsequent individual projects implemented under the proposed NEQSP, or that may have responsibility for approval of certain Project elements, may include but are not limited to the following:

- Association of Bay Area Governments (ABAG)
- Metropolitan Transportation Commission (MTC)
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- California Department of Transportation
- California Department of Fish and Wildlife
- California Public Utilities Commission
- Central Valley Regional Water Quality Control Board
- Pacific Gas and Electric Company
- Solano Transportation Authority
- Yolo-Solano Air Quality Management District (YSAQMD)

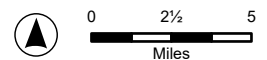


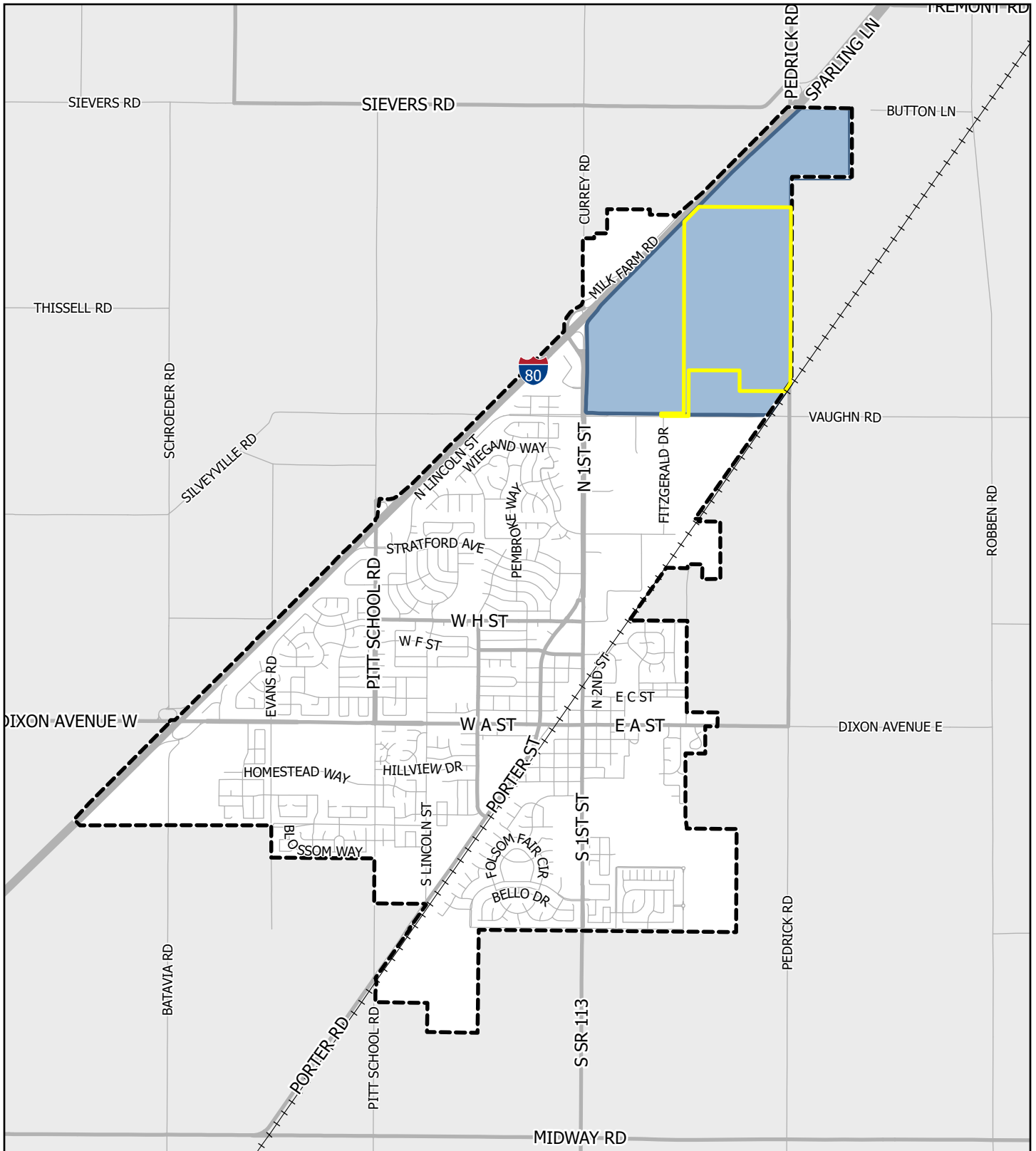
LEGEND

-  Project Location
-  Incorporated Area
-  County Boundary





THE CAMPUS EIR

Figure 2-1. Regional Location Map



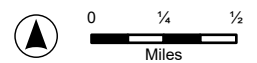


LEGEND

-  City of Dixon
-  The Campus Project Site
-  Northeast Quadrant Specific Plan Area
-  Union Pacific Railroad

THE CAMPUS EIR

Figure 2-2. Project Location



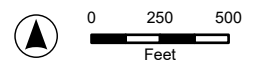


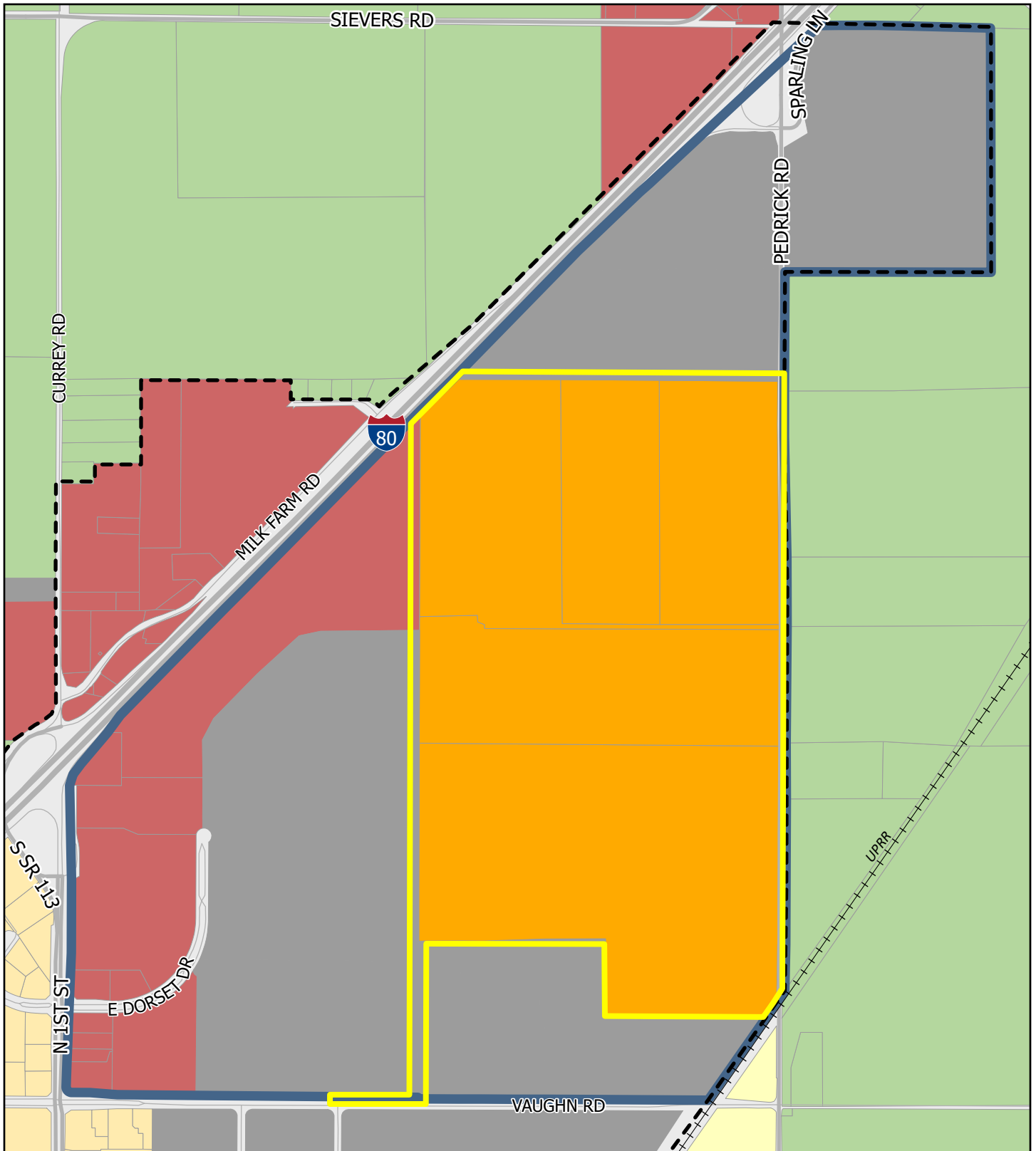
LEGEND

 The Campus Project Site

THE CAMPUS EIR

Figure 2-3. Project Site



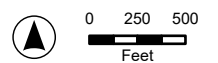


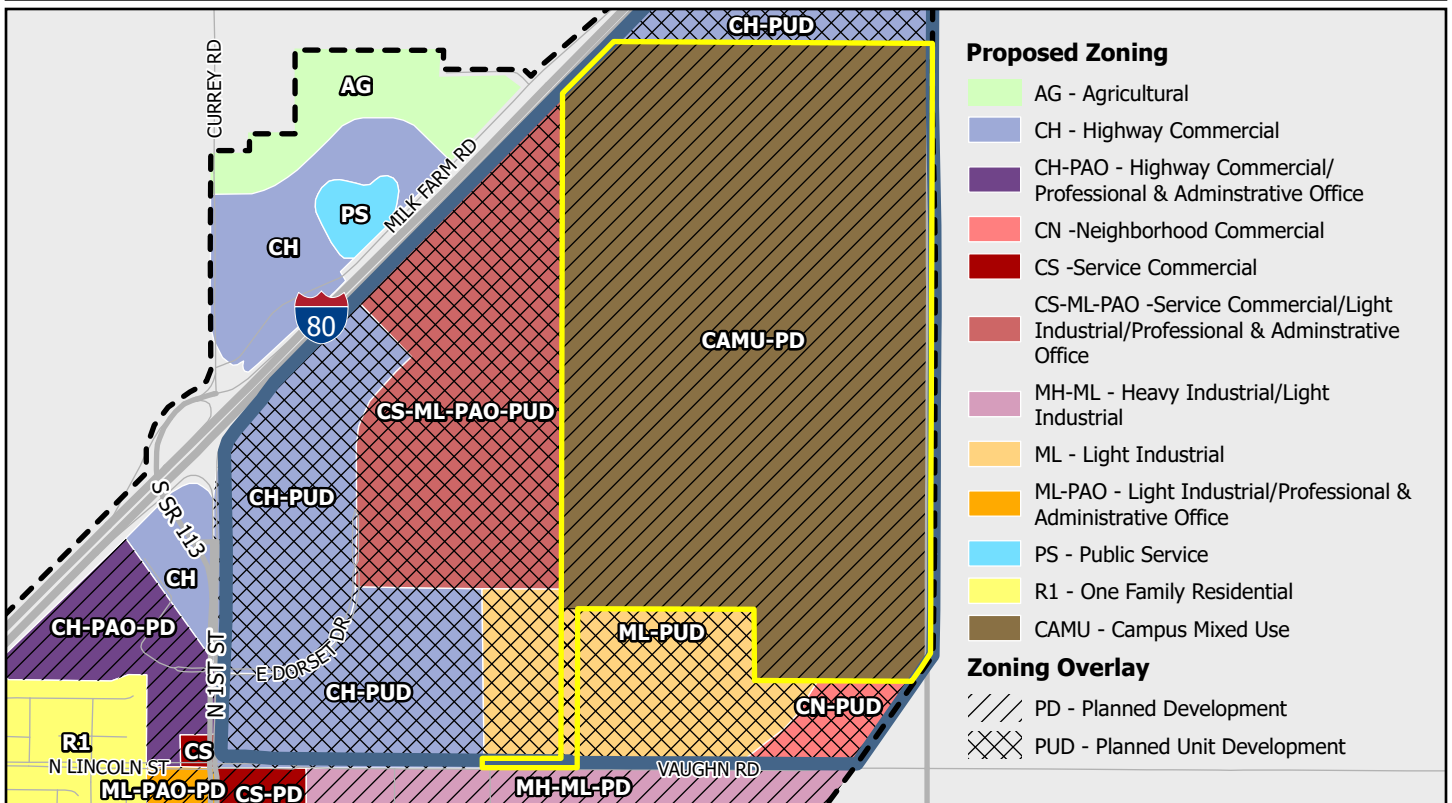
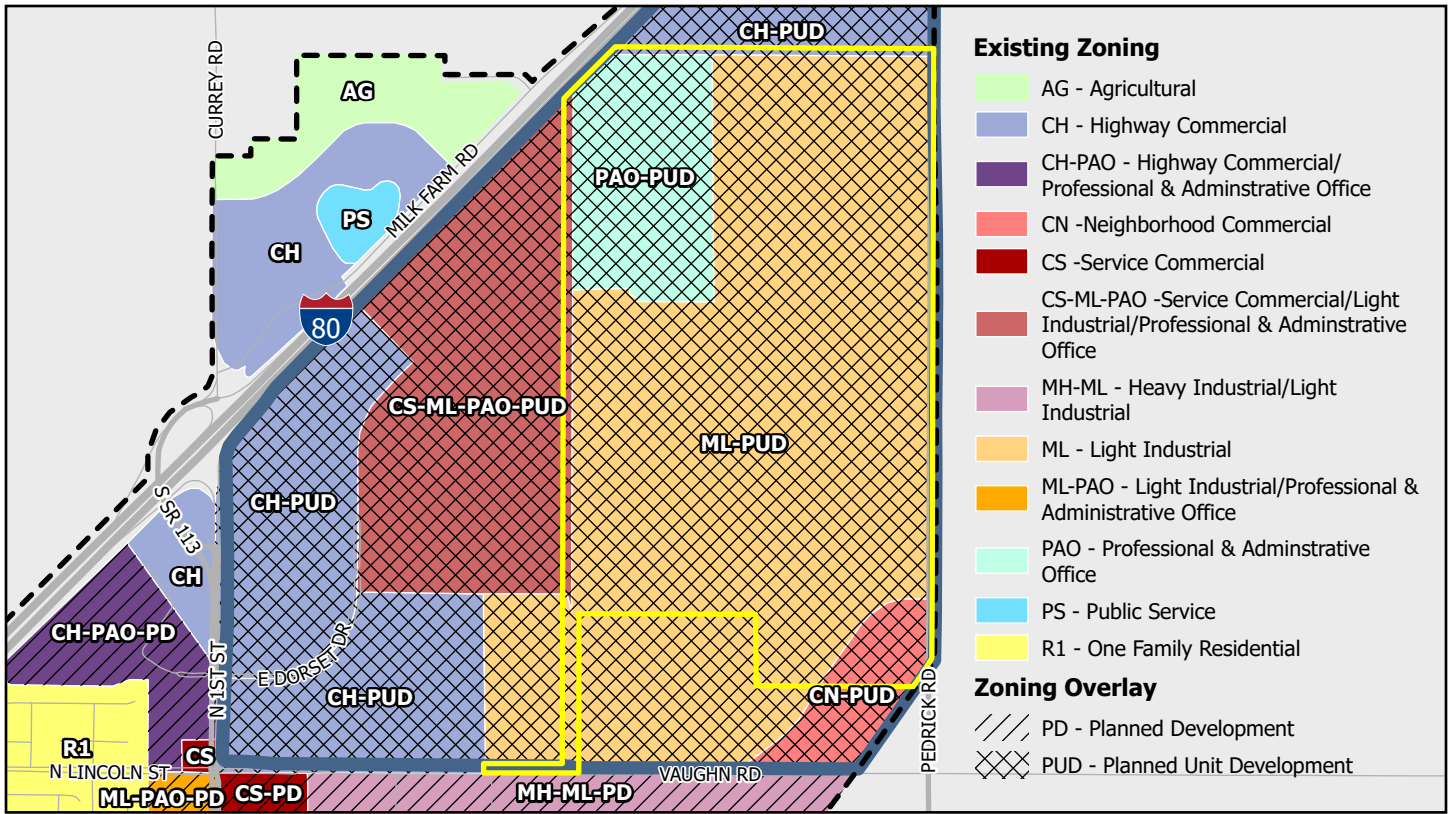
LEGEND

-  City of Dixon
-  Northeast Quadrant Specific Plan Area
-  The Campus Project Site
-  Campus Mixed Use
-  Corridor Mixed Use
-  Regional Commercial
-  Industrial
-  Low Density Residential
-  Medium Density Residential
-  Agricultural (County Designation)

THE CAMPUS EIR

Figure 2-4. Land Use Designations



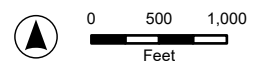


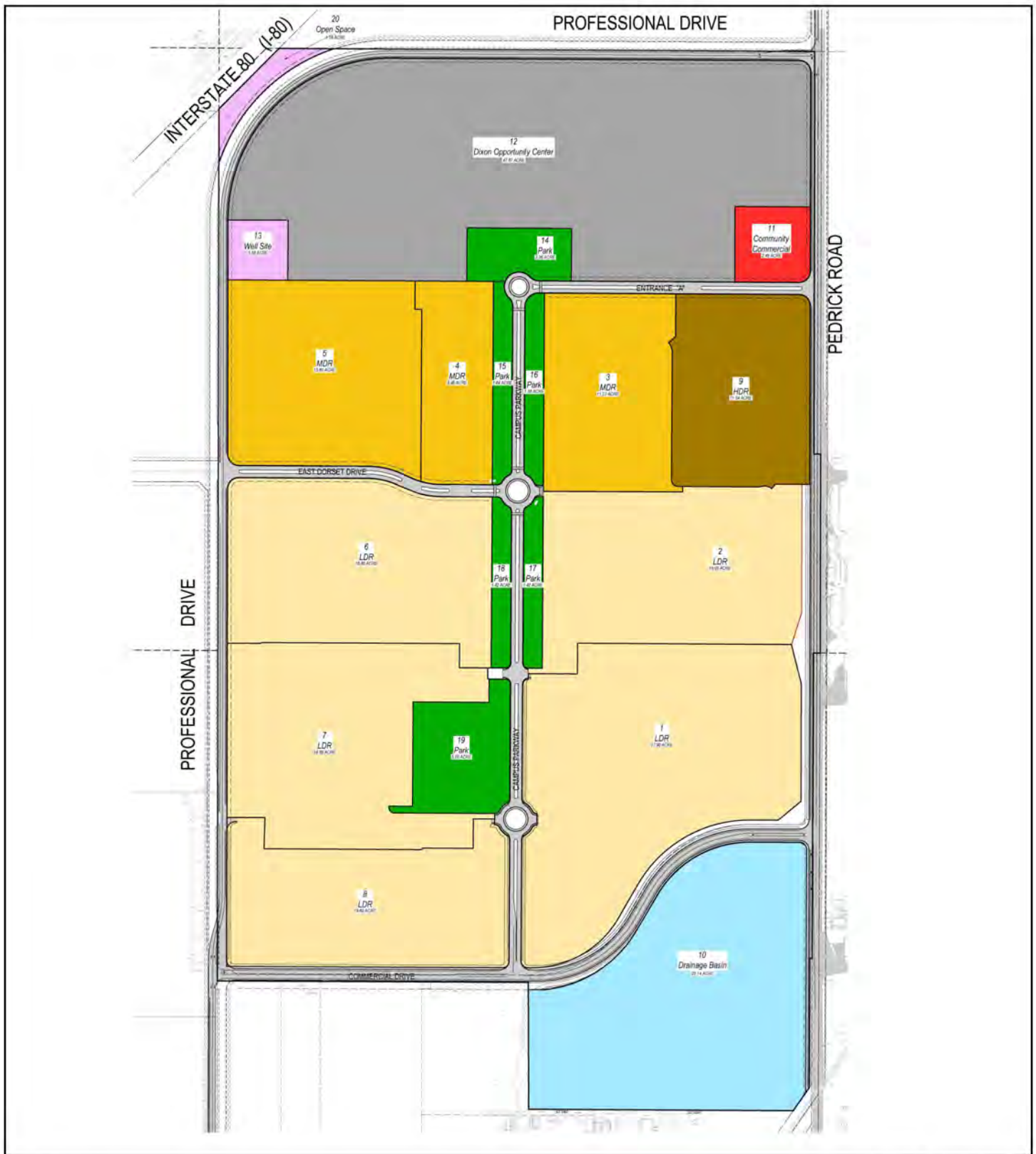
LEGEND

- City of Dixon
- Northeast Quadrant Specific Plan Area
- The Campus Project Site

THE CAMPUS EIR

Figure 2-5. Existing and Proposed Zoning



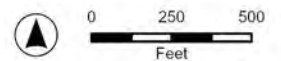


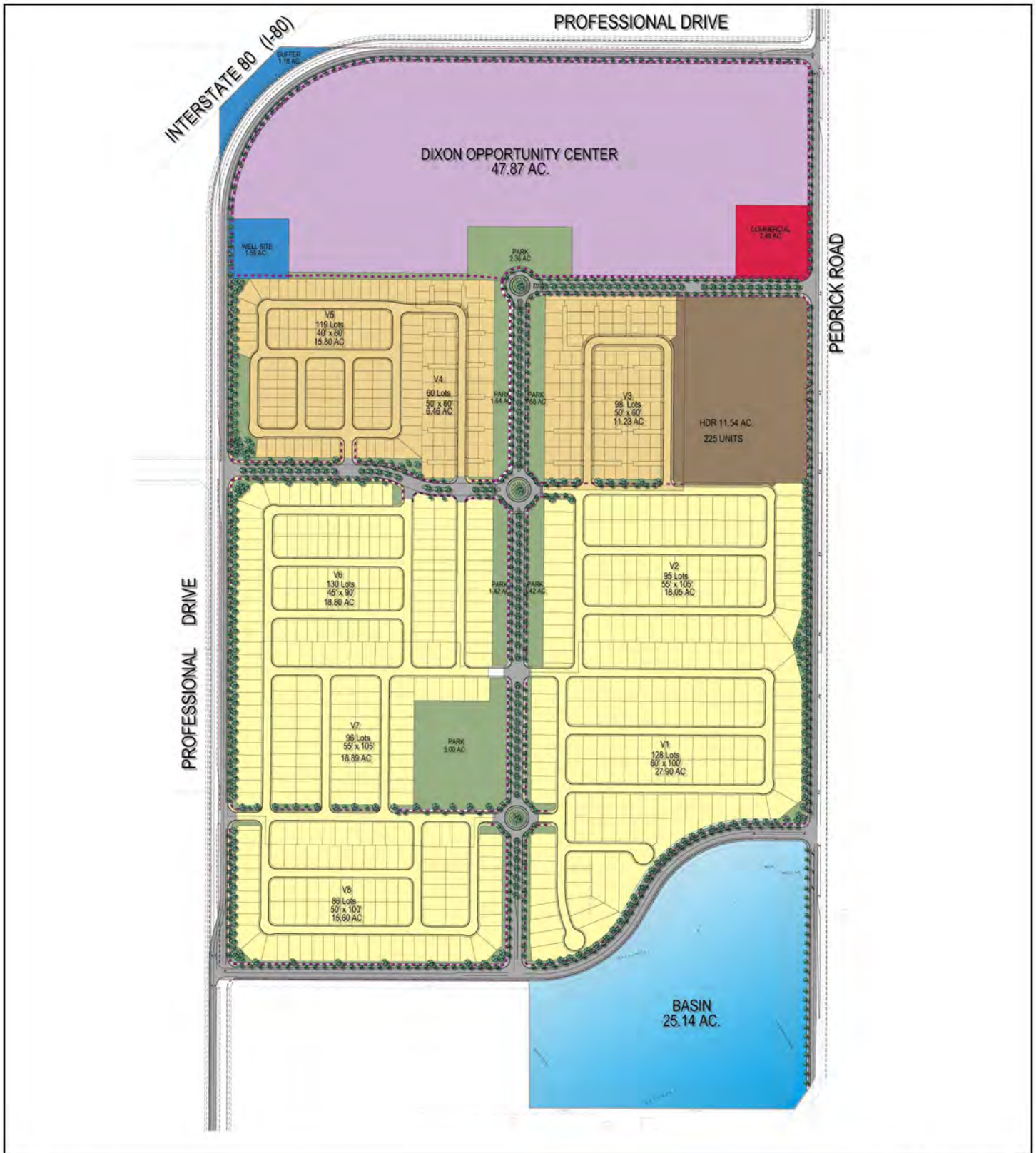
LEGEND

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Park
- Drainage Basin
- Dixon Opportunity Center
- Other

THE CAMPUS EIR

Figure 2-6. Proposed Land Use Plan



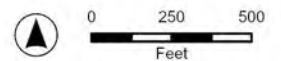


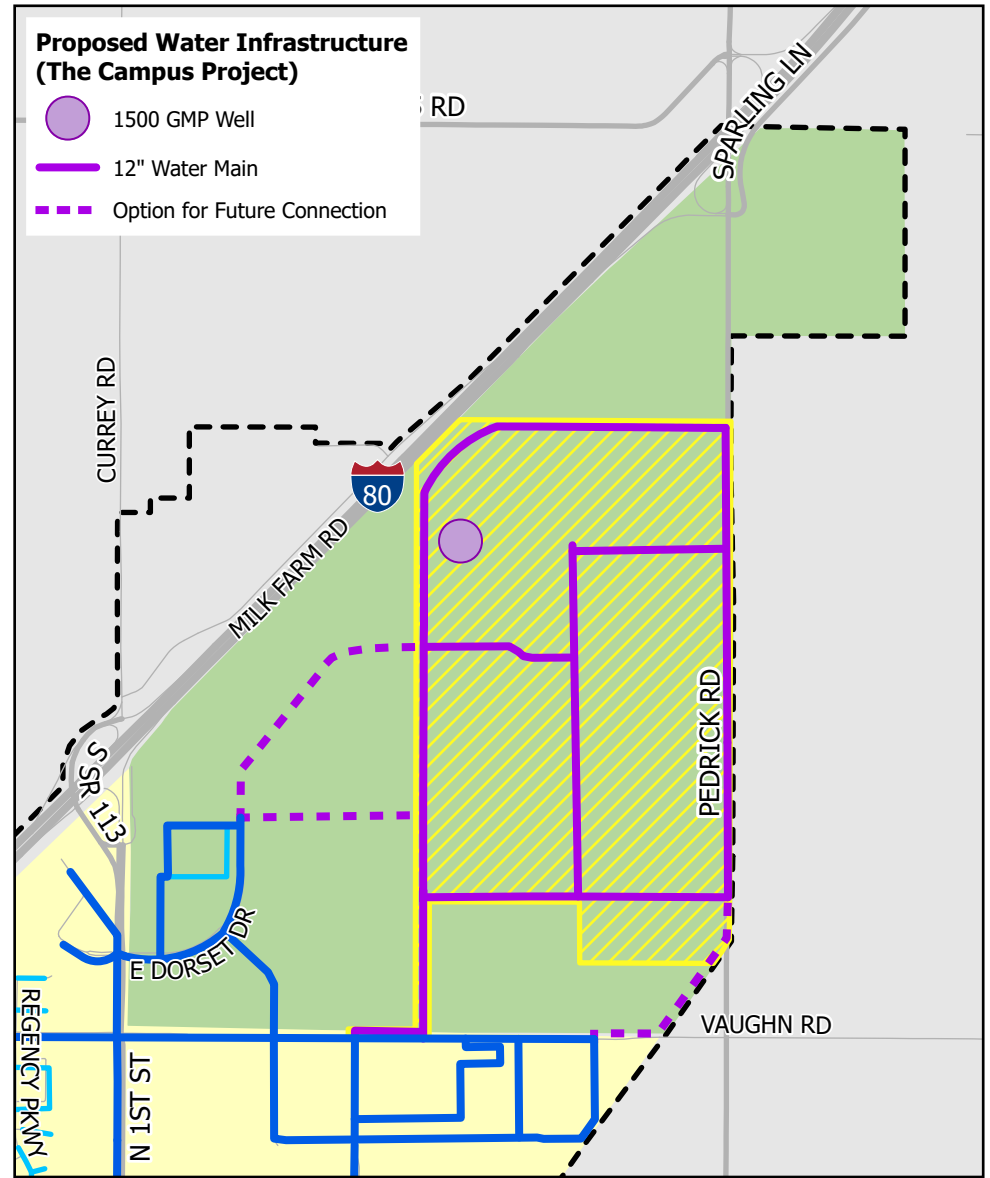
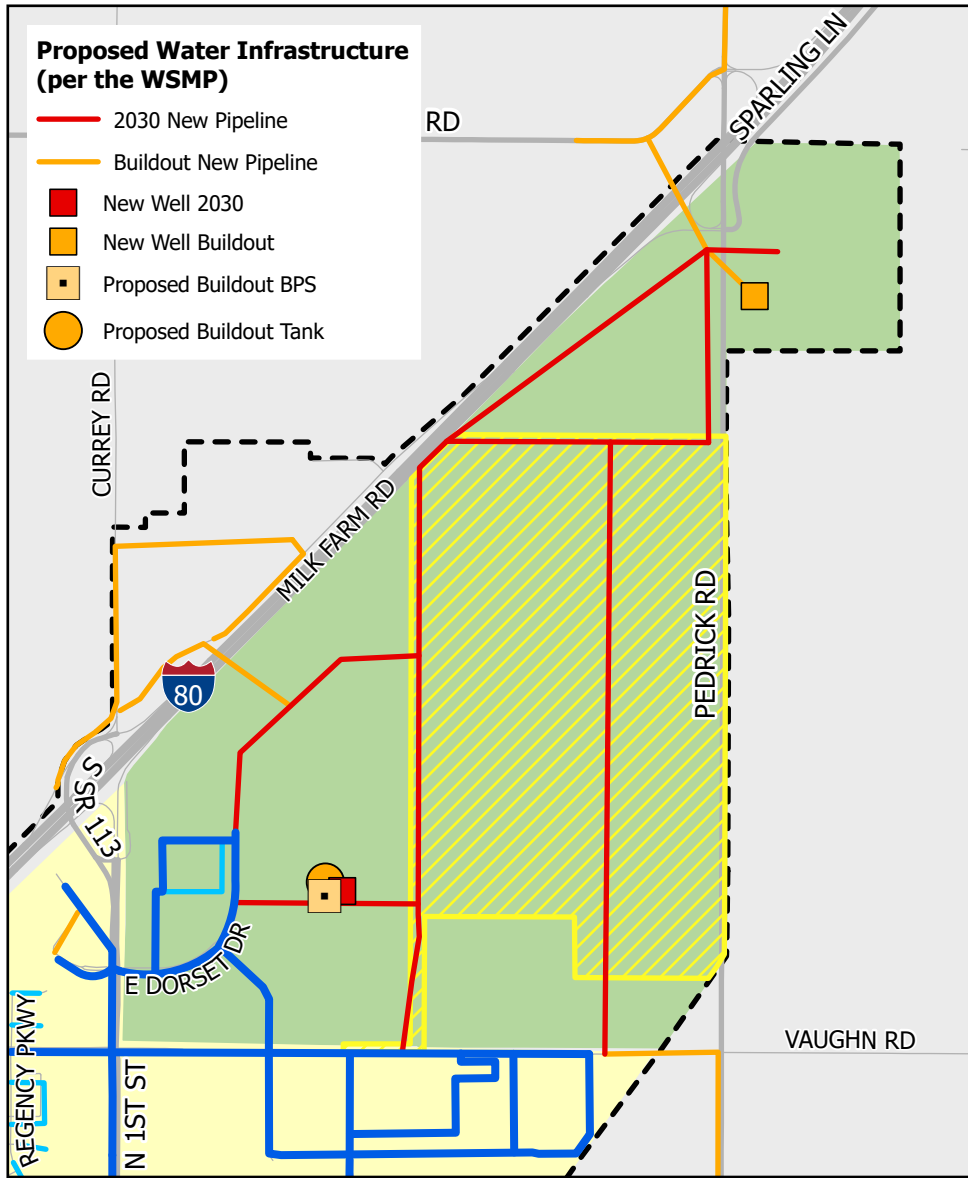
LEGEND

- | | |
|--|--|
| Low Density Residential | Dixon Opportunity Center |
| Medium Density Residential | Park |
| High Density Residential | Drainage Basin |
| Community Commercial | Other |

THE CAMPUS EIR

Figure 2-7. Illustrative Land Use Plan



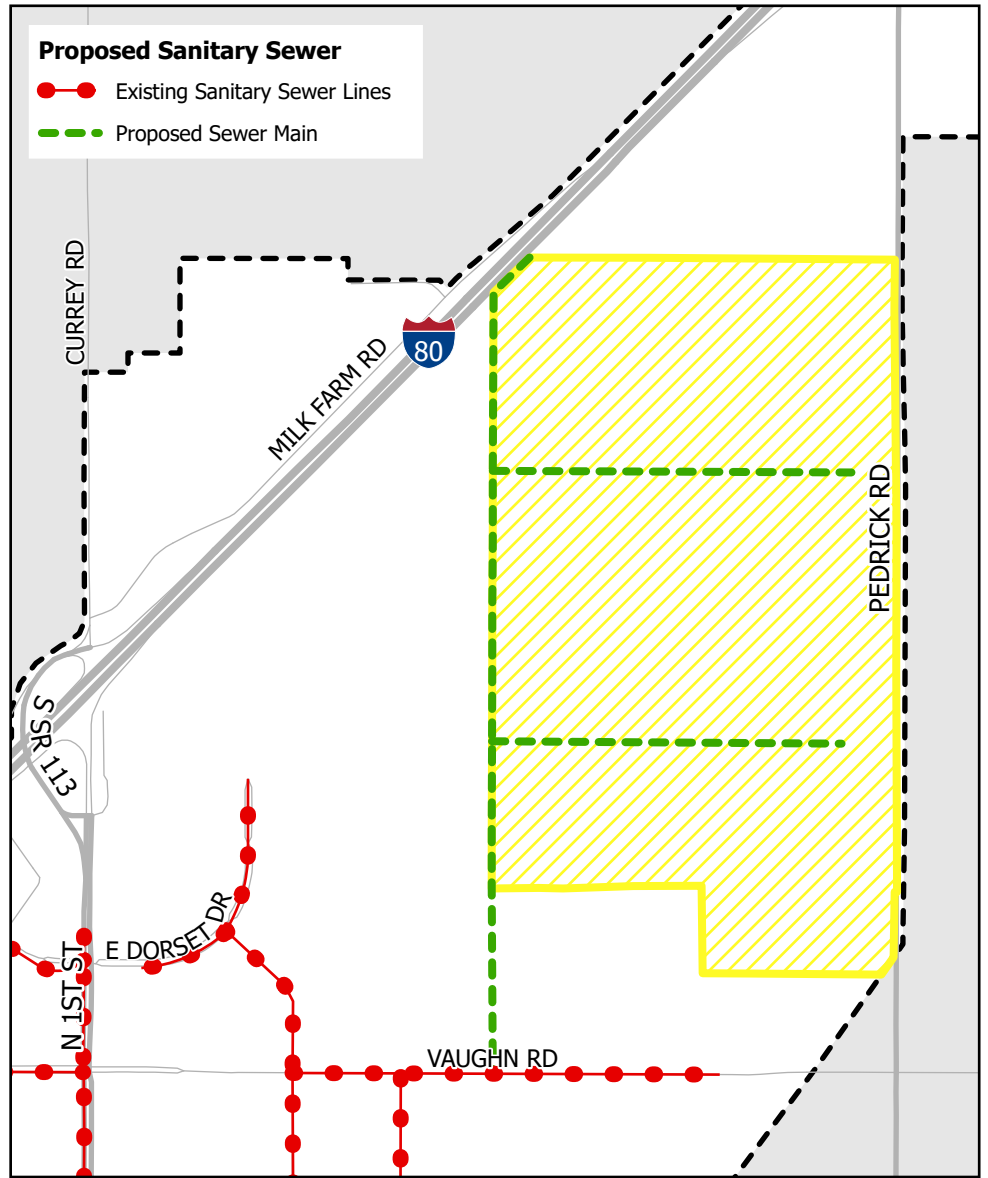
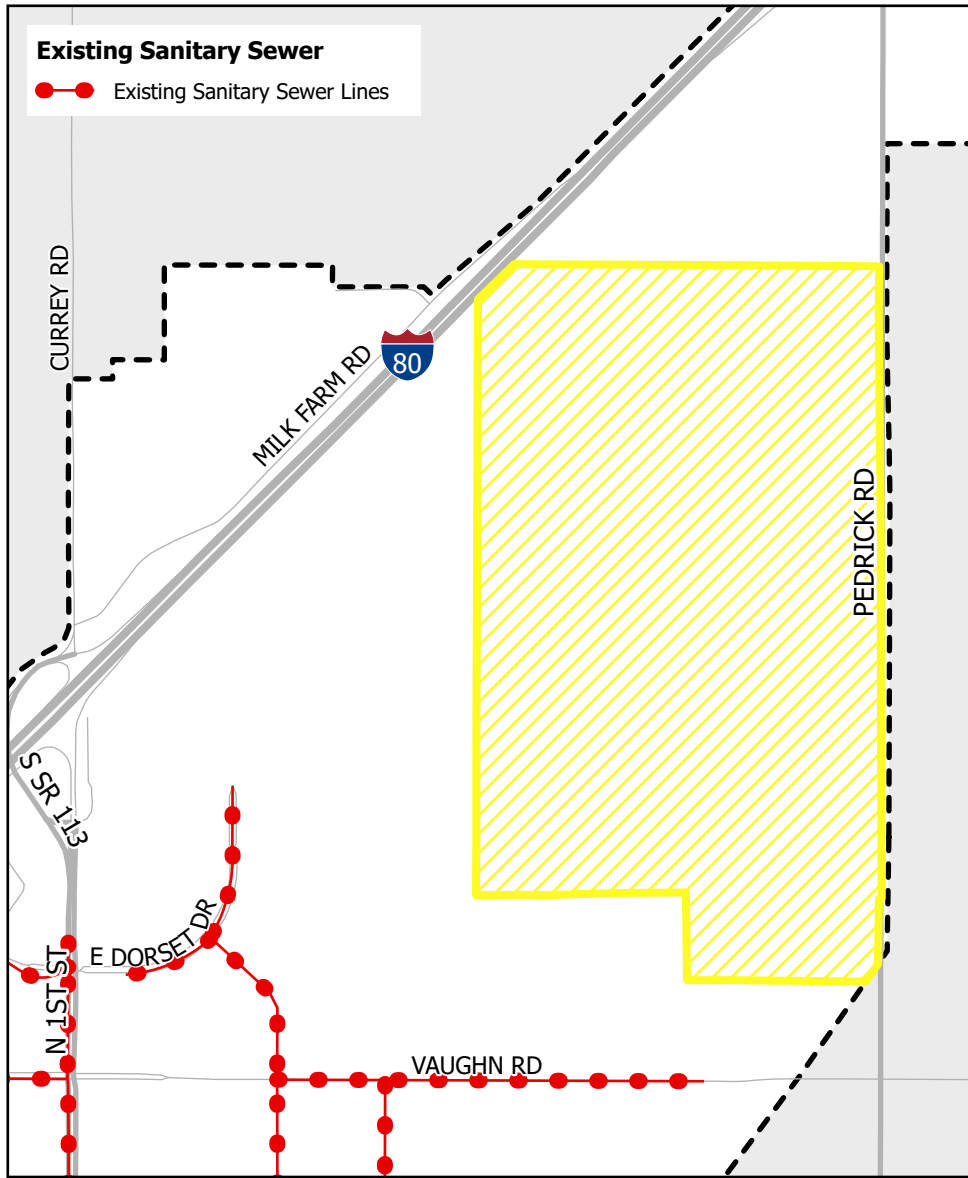




THE CAMPUS EIR

Figure 2-8. Water Distribution System



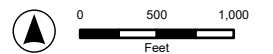
Sources: The Campus, City of Dixon, Water Study (v3), prepared by Morton & Pitalo. Map date: May 3, 2024.

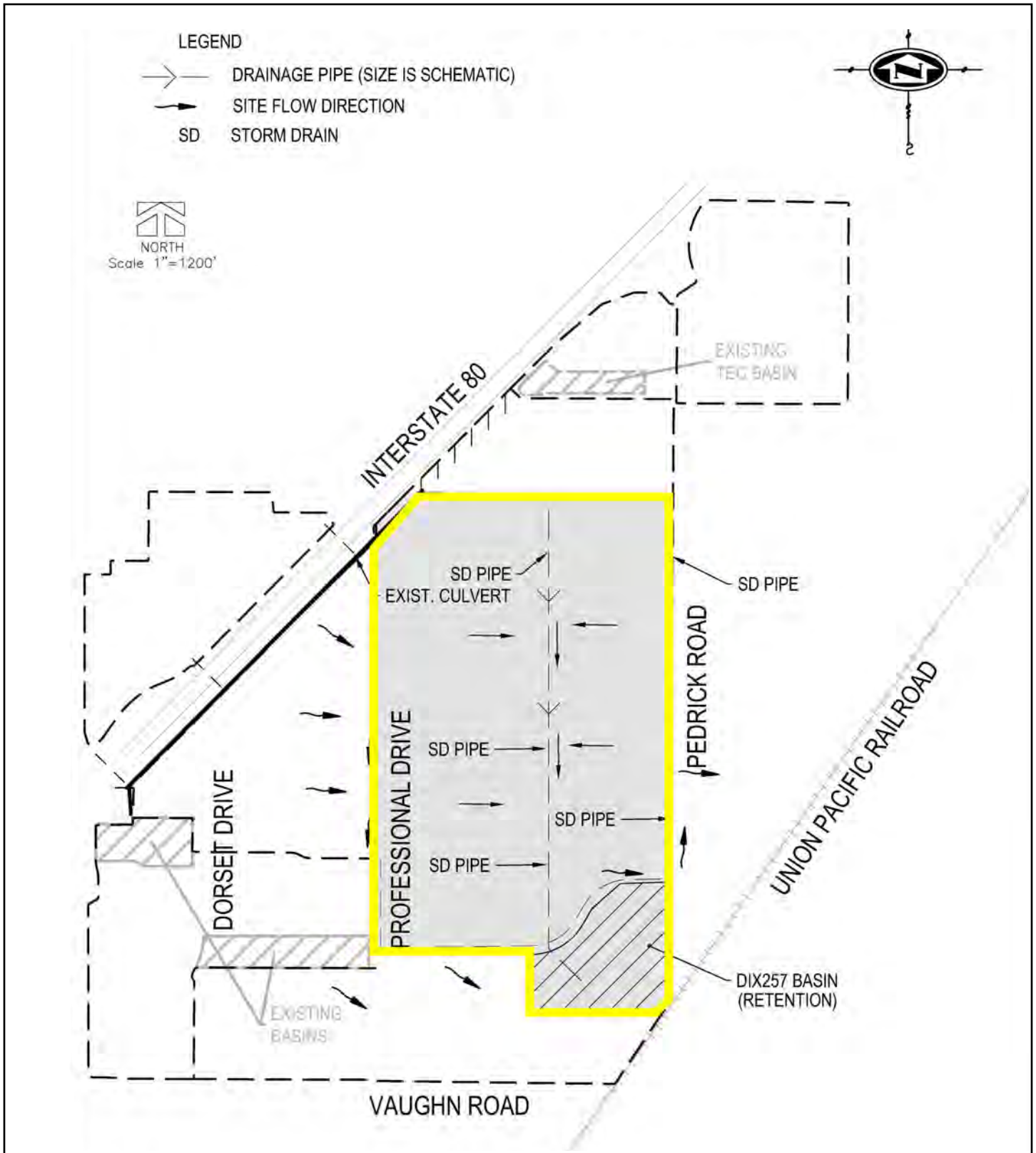


- LEGEND**
-  The Campus Project Site
 -  Dixon City Boundary

THE CAMPUS EIR

Figure 2-9. Wastewater System



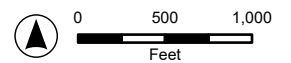


LEGEND

- The Campus Project Site
- Drainage Pipe (size is schematic)
- Site Flow Direction
- SD Storm Drain

THE CAMPUS EIR

Figure 2-10. Proposed NEQSP Drainage System





LEGEND

- Phase 1
- Phase 1A
- Phase 2

THE CAMPUS EIR

Figure 2-11. Proposed Phasing Plan

3.0.1 INTRODUCTION TO THE ANALYSIS

This draft environmental impact report (EIR) evaluates and documents the physical environmental effects that could result from implementing the proposed The Campus project in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 *et seq.*) and the CEQA Guidelines (California Code of Regulations Title 14, Section 15000 *et seq.*). Sections 3.1 through 3.16 of this EIR consider the regulatory background, existing conditions, and environmental impacts associated with implementation of the proposed project, as well as mitigation measures to reduce the impact of project-specific and cumulative environmental impacts and level of significance of impacts following mitigation. This EIR discusses the physical environmental effects that could result from implementation of the proposed Project. Because certain environmental effects that are typically analyzed under CEQA would not occur under the proposed Project, these topics are not analyzed further in Sections 3.1 through 3.16 of this EIR, and are instead considered in Section 3.0.4, below.

3.0.2 DEFINITIONS OF TERMS USED IN THE EIR

This EIR uses a number of terms that have specific meaning under CEQA. Among the most important of the terms used in the EIR are those that refer to the significance of environmental impacts. The following terms are used to describe the environmental effects of the proposed Project:

- **Significance Criteria:** The criteria used by the City of Dixon, as lead agency under CEQA, to determine whether the magnitude of an adverse, physical environmental impact would be significant. In determining the level of significance, the analysis recognizes that the proposed Project must comply with relevant federal, state, regional, and/or local regulations and ordinances that are regularly enforced through building codes and standards and/or other means.
- **Significant Impact:** The impact conclusion reached if the project would result in a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project-related physical change compared to specified significance criteria. A significant impact is defined as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.”¹
- **Less-than-Significant Impact:** The impact conclusion reached when the adverse physical environmental effect caused by the project would not exceed the applicable significance criterion.
- **Significant and Unavoidable Impact:** The impact conclusion reached when the project would result in a substantial adverse physical change in the environment that cannot be feasibly avoided or mitigated to a less-than-significant level, that is, to a magnitude below the applicable significance criterion.

¹ CEQA Guidelines, Section 15382.

- **Cumulative Impact:** Under CEQA, “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.”² Like any other significant impact, a significant cumulative impact is one in which the cumulative adverse physical environmental effect would exceed the applicable significance criterion and the project’s contribution is “cumulatively considerable.”³ If the contribution of a project to a significant cumulative impact is less than considerable, the cumulative impact would be less than significant.
- **Mitigation Measure:** A feasible action that could be taken that would avoid or reduce the magnitude of a significant impact. Section 15370 of the CEQA Guidelines defines mitigation as:
 - (a) Avoiding the impact altogether by not taking a certain action or parts of an action;
 - (b) Minimizing impacts by limiting the degree of magnitude of the action and its implementation;
 - (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
 - (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
 - (e) Compensating for the impact by replacing or providing substitute resources or environments.
- **Feasible:** Under CEQA, “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.”⁴

3.0.3 SECTION FORMAT

Chapter 3 is divided into technical sections (e.g., Section 3.1, Aesthetics) that present for each environmental resource issue area the physical environmental setting, regulatory setting, significance criteria, methodology and assumptions, and impacts on the environment. Where required, potentially feasible mitigation measures are identified to lessen or avoid significant impacts. Each section includes an analysis of project-specific and cumulative impacts for each issue area.

INTRODUCTION

Each technical environmental section begins with an introduction that briefly discusses the issues addressed in the section, identifies issues that may have been raised in Notice of Preparation scoping comments, and identifies major information sources.

² CEQA Guidelines, Section 15355.

³ CEQA Guidelines, Section 15130(a).

⁴ CEQA Guidelines, Section 15364.

ENVIRONMENTAL AND REGULATORY SETTING

Each section provides a description of the proposed Project's environmental setting and the regulatory setting as it pertains to relevant environmental resource issues. The environmental setting provides a point of reference for assessing the environmental impacts of the proposed Project and alternatives. The environmental setting describes the conditions that exist before implementation of the project. This setting establishes the baseline against which the proposed Project and alternatives are compared to assess the significance of environmental impacts.

The regulatory setting presents relevant information about federal, state, regional, and/or local laws, regulations, plans and/or policies that pertain to the environmental resources addressed in each section.

SIGNIFICANCE CRITERIA

Each section presents significance criteria against which the adverse physical environmental effects of the proposed Project are compared to determine the significance of impacts. The significance criteria used for the proposed Project were derived from Appendix G of the CEQA Guidelines and, where applicable, thresholds established by trustee and responsible agencies.

METHODOLOGY AND ASSUMPTIONS

Each section describes the analytical methods and key assumptions used to evaluate the effects of the proposed Project.

IMPACTS AND MITIGATION MEASURES

The methodology description is followed by a presentation of the adverse physical environmental impacts of the proposed Project, and, if impacts would be significant or potentially significant, potentially feasible mitigation measures that, if implemented, could avoid or reduce the magnitude of the significant impact. As required by CEQA Guidelines Section 15126.2(a), direct, indirect, short-term, long-term, on-site, and/or off-site impacts are analyzed, as appropriate, for each environmental impact.

Where enforcement of applicable laws, regulations, and standards exists and compliance can be reasonably anticipated, this EIR assumes that the proposed Project would meet the requirements of applicable laws and other regulations. The impact and mitigation discussions in each section are organized based on impact statements, prefaced by a number in boldfaced type. An explanation of each impact is followed by an analysis of and conclusion regarding its significance, based on the stated significance criterion. The analysis of environmental impacts considers the impacts that could be caused during both construction and operation of the proposed Project.

Where the impact for the proposed Project would be significant, it is followed by a presentation of potentially feasible mitigation measures. While this EIR includes information about potentially feasible mitigation measures, the Dixon City Council would make the final determination of feasibility of such measures.

The magnitude of reduction of an impact and the potential effect of that reduction in magnitude on the significance of the impact is presented. Each impact discussion concludes with a statement that the

impact, following implementation of the mitigation measure(s) and/or the continuation of existing policies and regulations, either would be reduced to a less-than-significant level or would remain significant and unavoidable.

An example of the format is shown below.

Impact 3.X-1: Impact statement.

A discussion of the potential impact of The Campus project on the resource is introduced in paragraph form. To identify impacts that may be site- or project element-specific, where appropriate, the discussion differentiates between construction-related effects and operational effects. A statement of the level of significance before application of any mitigation measures is provided in **bold**.

MITIGATION MEASURE(S)

If all impacts for the proposed Project are determined to be less than significant, the text here states, "None required."

If one or more impacts are determined to be potentially significant, mitigation is listed here. A statement of the level of significance before application of any mitigation measures is provided in bold.

Mitigation Measure 3.X-1 Recommended mitigation measure will be presented here and numbered to match the impact.

Where appropriate, one or more potentially feasible mitigation measures are described.

SIGNIFICANCE AFTER MITIGATION

A statement of the degree to which the available mitigation measure(s) would reduce the significance of the impact is described here and included in **bold**.

CUMULATIVE IMPACTS

An analysis of cumulative impacts follows the evaluation of project-specific impacts and mitigation measures in each section. A cumulative impact is an impact that is created as a result of the combination of the project evaluated in the EIR in conjunction with other past, present, and reasonably foreseeable projects causing related impacts.⁵ The cumulative impact analysis in this EIR evaluates the buildout of the proposed The Campus project, as well as other projects anticipated to be developed during buildout of the City of Dixon General Plan. Other planning documents, such as Plan Bay Area 2050, may be used, as appropriate.

The beginning of the cumulative impact analysis in each technical section includes a description of the cumulative analysis methodology and the geographic or temporal context in which the cumulative impact is analyzed (e.g., the city of Dixon, the Yolo-Solano Air Quality Management District, Solano County

⁵ CEQA Guidelines Section 15355.

projections, other activity concurrent with project construction). In some instances, a project-specific impact may be less than significant, but when considered in conjunction with other cumulative projects or activities, may be significant or potentially significant. As noted above, where a cumulative impact would be significant when compared to existing or baseline conditions, the analysis must address whether the project's contribution to the significant cumulative impact is "considerable." If the contribution of the project is considerable, then the EIR must identify potentially feasible measures that could avoid or reduce the magnitude of the project's contribution to a less-than-considerable level. If the project's contribution is not considerable, the cumulative impact would be less than significant and no mitigation of the project's contribution is required.⁶ The cumulative impacts analysis is formatted in the same manner as the project-specific impacts.

3.0.4 ISSUES PREVIOUSLY DETERMINED TO BE LESS THAN SIGNIFICANT

CEQA requires that the discussion of any significant effect on the environment address substantial, or potentially substantial, adverse changes in the physical conditions existing within the vicinity of the proposed Project. Pursuant to PRC Section 21000 and CEQA Guidelines Sections 15126.2(a) and 15128, a lead agency need not provide a detailed discussion of the environmental effects that would not be significant, and may instead provide a brief statement of dismissal for applicable environmental issues. Upon review of the proposed Project, the City of Dixon determined that because of the physical characteristics of the project area and the project as proposed, two environmental issues would involve less-than-significant impacts and therefore would not require further analysis in the Draft EIR. The discussions below provide brief rationales for the determinations that these issues do not require further consideration in this Draft EIR, as the proposed Project would not result in significant environmental effects on the following resources.

FORESTRY RESOURCES

The EIR certified for the Dixon General Plan 2040 in 2021 concluded there would be no impacts to forestry resources. No land zoned or used as forestry resources or timberland are in the City.⁷ Therefore, no forestry impacts would occur as a result of implementing the project and this issue will not be discussed in the EIR.

MINERAL RESOURCES

The EIR certified for the Dixon General Plan 2040 in 2021 concluded that there would be no impacts to mineral resources. Other than a few existing idle oil wells, there are no mineral resources identified in the city and, therefore, no potential impacts on this type of resource.⁸ Therefore, there would be no impact on mineral resources, and this impact will not be discussed in the EIR.

⁶ CEQA Guidelines Section 15130(a)(3).

⁷ City of Dixon, 2020. General Plan 2040 Environmental Impact Report, Public Review Draft. July 8. p. 5-17.

⁸ City of Dixon, 2020. General Plan 2040 Environmental Impact Report, Public Review Draft. July 8. p. 5-17.

This section provides an overview of the visual character, scenic resources, views, scenic highways, and sources of light and glare that are encountered on the Project site and the surrounding area. This section concludes with an evaluation of the impacts and recommendations for mitigating impacts. Information in this section is derived primarily from the following:

- Dixon General Plan 2040 (City of Dixon, 2021); and
- Draft Environmental Impact Report for the Dixon General Plan 2040 (City of Dixon, 2021).

One comment was received during the NOP scoping period regarding aesthetics and visual resources (Appendix A). Terry Schmidtbauer, Solano County Department of Resource Management, commented that architectural drawings and photo simulations of the Project are desired to assess potential aesthetic impacts in the DEIR. Each of these comments are addressed within this section.

3.1.1 ENVIRONMENTAL SETTING

REGIONAL SETTING

The City is located in the Central Valley region of Northern California, along the Interstate 80 (I-80) freeway corridor, with the cities of Davis and Sacramento located approximately six miles and 25 miles to the northeast, respectively, and the cities of Vacaville and San Francisco located approximately 15 miles and 65 miles to the west, respectively. All land within the City limits is located south of I-80, except for a small area known as the Milk Farm. The City's commercial and mixed uses (about 3 percent of the City of Dixon) are located along the Highway 113 corridor and near freeway off-ramps along the I-80 corridor. Most of the City's industrial uses (about 7 percent of the City of Dixon) are clustered north of the Union Pacific Railroad tracks, in between Highway 113 and Pedrick Road. Residential uses compose nearly one-fifth of the City of Dixon, and the predominant housing type in the City is single family homes. Many of the residential neighborhoods are found west of Highway 113, although some neighborhoods are east of the highway on the southern side of the Union Pacific Railroad tracks. Public facilities and parks (together about 12 percent of the City of Dixon) are found in many of the residential neighborhoods across the City. Agricultural uses make up nearly 30 percent of the City of Dixon and 40 percent of the City's Sphere of Influence, including about 1,385 acres within the City limits and nearly 750 acres outside of City limits. Agricultural uses border the residential and industrial uses on the southern, eastern, and northern edges of the City. There are large, vacant lots in the northeast and southwest areas of the City, totaling just about nine percent of the City of Dixon.

No roads in the City of Dixon have been designated as State Scenic Highways and none have been identified as Eligible for designation.¹

¹ City of Dixon. Draft Environmental Impact Report for the Dixon General Plan 2040, pg. 3.1-2. 2021.

PROJECT SITE AND SURROUNDING AREA

The Project site is located west of Pedrick Road, north of Vaughn Road, and south of I-80, in the City of Dixon, California. Although the General Plan, Zoning Map or Specific Plan do not designate this site for agricultural use, the Project site is in an agricultural setting and is currently used to cultivate various row crops. Aerial imagery of the Project site indicates row crops have been cultivated on the site for at least the past thirty-five years. Historic aerial imagery indicates there were several farm structures present in the center of the Project site in the northwest corner of Assessor Parcel Number (APN) 0111-040-020 at one time and it is currently used to store farm equipment and hay bales during harvest. This rectangular area in the west-central portion of the Project site is not utilized for crops and is currently supporting bee boxes. Old pavement, woody debris, rubble piles, and evidence of previous structures were observed in this area. Dirt access roads and ditches occur throughout the Project site along the perimeters of the fields, and aerial imagery also indicates the ditches are created, moved, and filled as crops are rotated and cultivated.

Land uses adjacent to the Project site include row crops to the northeast, north, and west, orchard to the southwest, and urban industrial to the southeast and east.

The topography of both the Project site and its surroundings varies slightly from relatively flat terrain to gentle slopes and undulations. Adjacent to the east of the Project site, across Pedrick Road, is the Campbell's Soup Supply Company plant, an industrial facility complex, marked by large structures, machinery, and storage facilities. The area surrounding the plant is predominantly industrial and vehicle parts service. Beyond the industrial area to the east of the Campbell's Soup Supply Company plant, the visual corridor extends to open space and farmland. Due to the distance from Dixon to the Sierra Nevada and intervening structures, there are varying views of the Sierra Nevada mountain range to the east. West of the Project site are a Walmart Supercenter and GE Distribution Center. Beyond that, the landscape transitions again back into agricultural expanses, characterized by farmlands and open fields. Depending on the specific location within the western viewshed, clear or partially obstructed views to the Coastal Range may be observed. The TEC Equipment facility is north of the Project site, along Pedrick Road and the I-80 corridor. The TEC Equipment facility is characterized by industrial/commercial buildings and surface parking for large semi-trucks and other vehicles. South and southwest of the Project site, urban and industrial structures become more prominent. Views are primarily dominated by urban industrial, light manufacturing, and service commercial uses.

SCENIC HIGHWAYS AND CORRIDORS

Scenic highways and corridors make major contributions to the quality of life enjoyed by the residents of a region. The development of community pride, the enhancement of property values, and the protection of aesthetically-pleasing open spaces reflecting a preference for the local lifestyle are all ways in which scenic corridors are valuable to residents.

Scenic highways and corridors can also strengthen the tourist industry. For many visitors, highway corridors will provide their only experience of the region. Enhancement and protection of these

corridors ensures that the tourist experience continues to be a positive one and, consequently, provides support for the tourist-related activities of the region's economy.

Scenic Highways

A scenic highway is generally defined by Caltrans as a public highway that traverses an area of outstanding scenic quality, containing striking views, flora, geology, or other unique natural attributes. As described in the Dixon General Plan EIR, there are no Officially Dedicated California Scenic Highway segments, corridors, vistas, or viewing areas in Dixon or in the City's vicinity².

Solano County Scenic Highways/Corridors

There are no highways in Solano County listed as Designated Scenic Highway by the Caltrans Scenic Highway Mapping System³. Only one highway section in Solano County is listed as an Eligible State Scenic Highway by the Caltrans Scenic Highway Mapping System: the segment of State Route (SR) 128 from approximately the City of Winters to Rutherford to the west of the County. The City of Dixon and the Project site are not visible from this roadway segment.

The Solano County General Plan identifies the entirety of I-80 and Highway 113 as scenic roadways and includes policies and implementation programs aimed at protecting designated scenic roadways. The Project site is immediately adjacent to I-80.

LIGHT AND GLARE

There are two typical types of light intrusion. First, light emanates from the interior of structures and passes out through windows. Secondly, light projects from exterior sources such as street lighting, security lighting, balcony lighting, and landscape lighting. "Light spill" is typically defined as the presence of unwanted and/or misdirected light on properties adjacent to the property being illuminated.

Street lighting is provided within the developed areas of the City, either by the City or through private ownership. In new developments, the City itself does not install streetlights. Rather, the City requires developers to install lights and provide an offer of dedication of the improvements to the City. Light introduction can be a nuisance to adjacent residential areas and diminish the view of the clear night sky, and, if uncontrolled, can disturb wildlife in natural habitat areas. There are other types of light intrusion that can occur such as from brightly lit outdoor industrial areas, security lighting on the outsides of buildings, overhead lighting in surface parking lots, or neon or LED signage lighting. Existing sources of light or glare are not currently located on the Project site, although street lighting along Vaughn Road and I-80, and building and parking lot lighting associated with the nearby

² California Department of Transportation, Scenic Highway Program. List of eligible and officially designated State Scenic Highways. Accessed January 16th, 2024.

³ California Department of Transportation, Scenic Highway Program. List of eligible and officially designated State Scenic Highways. Accessed January 16th, 2024.

3.1 AESTHETICS AND VISUAL RESOURCES

industrial areas and the Walmart Supercenter and Dixon Distribution Center are visible from the Project site.

Glare is the sensation produced by luminance within the visual field that is significantly greater than the luminance to which the eyes are adapted, which causes annoyance, discomfort, or loss in visual performance and visibility. Glare can be caused by window reflections, light reflecting on building materials, water reflections, vehicle headlights, or other natural or artificial sources of light. There are no structures on the Project site, or other sources, that could produce glare. Sources of glare from uses surrounding the Project site include vehicle windows and headlights located within parking areas of the Walmart Supercenter and Dixon Distribution Center to the west, the TEC Equipment facility and I-80 to the north, and the existing industrial areas to the east and south. These sources of glare are typically caused by internal lighting and reflection of natural sunlight.

3.1.2 REGULATORY SETTING

STATE

California Scenic Highway Program

The intent of the California Scenic Highway Program is “to protect and enhance California’s natural scenic beauty and to protect the social and economic values provided by the State’s scenic resources.” Caltrans administers the program, which was established in 1963 and is governed by the California Streets and Highways Code (§260 et seq.). The goal of the program is to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of the adjacent land. Caltrans has compiled a list of state highways that are designated as scenic and county highways that are eligible for designation as scenic.

Scenic highway designation can provide several types of benefits to the region. Scenic areas are protected from encroachment of inappropriate land uses, free of billboards, and are generally required to maintain existing contours and preserve important vegetative features. Only low density development is allowed on steep slopes and along ridgelines on scenic highways, and noise setbacks are required for residential development.

As described above, there are no designated Scenic Highway Corridors in the vicinity of the Project site.

LOCAL

City of Dixon General Plan

The City of Dixon General Plan contains the following policies that are relevant to aesthetics and visual resources:

ECONOMIC DEVELOPMENT ELEMENT

Policy E-1.7 Require industrial, light industrial, and agro-industrial development to meet performance standards based on factors of noise, odor, light, glare, traffic generation and air

emissions, soil contamination, and surface and groundwater contamination in order to minimize its impacts on established or proposed residential areas and other adjacent uses.

Policy E-5.2 Ensure that commercial centers visible from State highways in Dixon are attractively designed and easy to navigate.

LAND USE AND COMMUNITY CHARACTER ELEMENT

Policy LCC-2.2 Encourage compatible new development that respects and complements Dixon's historic context and natural environment.

Policy LCC-2.3 Recognize that a diversity of architectural styles contributes to Dixon's charm and promote a variety of building styles and types consistent with the community's small-town feel.

Policy LCC-2.4 Require new development in mixed use areas and along corridors provide appropriate transitions in building height and massing so that it is sensitive to the physical and visual character of adjoining lower-density neighborhoods.

Policy LCC-2.5 Use the design review guidelines in the design review process to assess how built characteristics, including scale, materials, hardscape, lights, and landscaping, blend into the surrounding neighborhood.

Policy LCC-2.8 Protect and improve scenic vistas in Dixon, including views from Interstate 80 and views of surrounding agricultural and open space lands.

Policy LCC-6.5 Encourage new development to incorporate greenery, including climate appropriate trees and plants as well as rain gardens, and as new development occurs, acquire easements or development rights for open space, planting street trees, and landscaping adjacent to public rights-of-way.

City of Dixon Municipal Code

Chapter 13.05, Street Trees, of the City's Municipal Code outlines recommended tree species to be planted in the street tree area. The purpose of the street tree ordinance is to regulate and manage the planting, maintenance, and removal of street trees located in public spaces, particularly along streets and sidewalks within the City of Dixon.

Chapter 18.23, Design Review Commission, sets forth the City's design review process. The purpose of Chapter 18.23 is to recognize the interdependence of land values and aesthetics and to provide methods to promote sound land use development and assist in the development of architectural standards and guidelines for residential, office, commercial, retail business, and industrial structures. Chapter 18.23 establishes the height limitations, screening and landscaping, setbacks, and design review requirements for new development. As established in Chapter 18.23, the City Design Review Commission is responsible for reviewing the location, design, and intensity of all exterior lighting of new development that is subject to Design Review. The City of Dixon Planning Commission serves as the City Design Review Commission.

Northeast Quadrant Specific Plan (NEQSP)

The Form and Design Element of the NEQSP establishes standards and guidelines to serve as an aid in the design and review of individual developments within the Northeast Quadrant Specific Plan Area. The Form and Design objectives of the NQSP are to: provide for a blending of the built environment with landscaped open space to enhance work environments and enrich the overall image of the plan area; apply state-of-the-art energy conservation methods and systems responsive to local climatic conditions to building and landscape design, building siting and orientation; enable superior quality development that integrates architectural style, landscaping, public art, signage, lighting, circulation, and street furniture to produce an environment that is aesthetically pleasing in form, scale, texture, color and variety; and ensure safety and convenience for all plan area users. The General Design Guidelines of the NEQSP focus on the themes and design features that will be used throughout the plan area. Guidelines are included which detail the treatment of common elements or issues found in a number of different land use types. A focus of the design guidelines is on the interface between the outside world and the Project.

Applicable policies of the Form and Design Element of the NQSP are included below.

PROJECT SITE DESIGN

The following design guidelines are applicable to all land uses within the NEQSP area:

1. Each increment of a phased project shall be designed to be complete in its function, circulation, drainage, infrastructure, landscaping, and visual aspects.
2. Projects adjacent to open space areas and corridors should incorporate such corridors into project design.
3. Buildings should incorporate, to the extent feasible, adjacent open space as a visual amenity. A minimum twenty foot (20') building setback shall be provided from the edge of the open space areas. Such setback shall be landscaped and may include berms and swales to create a boundary and control drainage. Fencing between commercial and open space use is discouraged. When necessary, such fencing should be open type to allow for continuous view to the open space area, except where screening is desired. Building design shall consider views from the adjacent open space areas. In general, architectural treatment and materials for those frontages visible from adjacent open space areas shall be the same as those utilized on the main frontages of the buildings.
4. Buildings shall be sited with regard to the physical features of each project parcel and adjacent parcels. Such features shall be considered as primary design determinants.
5. Projects located adjoining or within noise impact areas that exceed 70 dBA should incorporate noise mitigation measures. These may include, but are not limited to, orientation and massing of facilities and sound reducing materials and structures such as double glazed windows, sound walls and berms.
6. Site design and architecture shall consider solar access, wind protection, shade, and seasonal considerations, to enhance the quality of outdoor space.
7. Public art shall be considered at prominent locations along pedestrian paths, adjacent to buildings, and at key observation points.

8. Bicycle racks, lockers, and showers for employees are generally encouraged to be placed within projects to promote walking and cycling to work. Bicycle parking should be provided in highly visible and convenient locations. Within the PUD review process or equivalent mechanism, the parking required for a development project may be reduced in-lieu of such facilities.
9. The concept of shared parking should be encouraged and parking should be located to the rear or side of buildings where practical.

The following design guidelines are applicable specifically to commercial land uses within the NEQSP area:

10. Building site design should consider alternatives to the standard "L" shape or strip building configuration. In order to strengthen the streetscape, pad sites or a portion of the main building should be located at the street frontage.
11. Large single-user freestanding retail commercial buildings which are not integrated in an overall pedestrian oriented site design, are generally discouraged, and should not be the dominant form of commercial use on any parcel. Architectural design measures should be incorporated to visually reduce the bulk and large frontages often associated with such uses.
12. Each commercial area shall be accessible from at least one major collector or arterial street, with sufficient design capacity to accommodate traffic generated by the businesses as well as other local traffic.
13. Commercial areas shall be accessible by public transportation, and from pedestrian sidewalks and bicycle routes. Consideration shall be given at the design review stage to on-site transit stops, including but not limited to bus stops.
14. Commercial uses shall have a comprehensive parking plan designed to maximize shared parking facilities, establish efficient circulation, promote the visual quality of the site, and accommodate pedestrian circulation. Angled parking with one-way circulation is to be utilized whenever feasible.
15. Commercial buildings shall be set back a sufficient distance and be designed to minimize visual impacts on adjacent uses to the extent practicable. The setback will vary depending upon building height and bulk, and type of use.

GENERAL ARCHITECTURAL GUIDELINES (BUILDING FORM AND STYLE)

The scope of the NEQSP does not define the range of architectural styles permissible in the plan area. Design standards that would specify standardized materials and forms over the entire plan area would be unnecessarily restrictive. However, it is desirable to ensure consistency in the architectural treatment within individual projects or complexes and to create visual continuity between separate projects. The Planned Unit Development (PUD) review process or equivalent mechanism, will address the specific design of a development project. To ensure overall compatibility, the following architectural design guidelines are suggested:

1. Primary building and project entries should be well-defined by accent treatments including, but not limited to, special textures, forms, materials, colors, and landscaping in order to provide a sense of entry and facilitate orientation for users.

3.1 AESTHETICS AND VISUAL RESOURCES

2. All exterior architectural materials and systems should be selected to withstand local climate related conditions including peak intensities and duration of precipitation, maximum diurnal and seasonal temperature extremes and predictable UV exposures.
3. Untextured, untreated concrete slab tilt-up buildings lacking detail and architectural style and form are discouraged.
4. All ancillary structures such as walls, detached storage structures and debris enclosures should be treated as an integral part of the building design and should not appear as unrelated to the primary structure. All accessory structures should be compatible in material, color and texture with the primary structure.
5. Buildings visible from North First Street and Interstate 80 (I-80) should be distinctive in form, lighting, and detailing to establish a strong identity for these regional routes and primary entries into the City.
6. For all uses other than highway commercial, trademark buildings typical of chain or franchise businesses are generally discouraged.
7. Where the rear or side of a structure is visible from a public thoroughfare or public space such as with properties adjoining I-80, such elevations should be treated with materials, detailing and color compatible with the primary frontage.

INTERSTATE 80 CORRIDOR

The following design element features are therefore recommended; as may be modified by project PUD or equivalent mechanism:

1. An irregular "sawtooth" setback line may be established along the project's I-80 frontage, varying between a minimum of 35 feet from the property's edge, to a maximum of 200 feet.
2. A coordinated land sculpture or alternative landscape plan should be considered for the plan area's entire I-80 frontage. The land sculpture plan should consider the use of earth mounding, berms, retaining walls, and revetments to create visual diversity; screen structures and parking area create noise attenuation and provide visual interest to travelers in passing vehicles.
3. Where incorporated, land sculptures should be integrated with landscaping to provide intermittent vantages into the plan area from adjoining roadways.

PEDRICK ROAD

Pedrick Road parallels the east side of the NEQSP area. This road is one of the main access roads to Dixon. The following land sculpture design guidelines are recommended to help develop this road, as may be modified by project PUD or equivalent mechanism:

10. A setback line of 25 feet will be established along the plan frontage of Pedrick Road.
11. A coordinated land sculpture or alternative landscape plan should be considered for the plan's Pedrick Road frontage. The land sculpture plan should consider the use of earth-mounds, berms, retaining walls and revetments to create visual diversity, screen structures and parking areas, create noise attenuation and provide visual interest to travelers in passing vehicles.

12. Where incorporated, land sculpture should be integrated with landscaping to define a gateway entry node at the plan's intersections of Pedrick Road and Professional Drive.

STREETSCAPE LANDSCAPE GUIDELINES

Landscaping will provide edge definition and accent and visual buffering along the designated scenic corridors and will help reinforce a common identity and image for the NEQSP area. To ensure aesthetic and functional land use buffering and edge definition, the following landscape design guidelines are suggested:

1. Street trees shall typically be located at 30 feet on center along major thoroughfares to provide shade and foliage, soften the hard streetscape, and help define the public space and pedestrian scale. Tree spacing may vary dependent upon the characteristics of the selected street tree. Alternative spacing may be approved by the City through the project PUD, or equivalent mechanism, if determined to be consistent with the above intent.
2. Landscaping may include land sculpting or alternative features as a method of adding visual interest and providing sufficient soil for mature plant growth. The intent is to avoid an unbroken visual plane along the roadway corridors. Such berms may not interfere with traffic visibility or drainage to natural features.
3. Accent planting shall be used at project entries. The maintenance of ground covers and shrubs within the planter strips shall be the responsibility of the adjacent property owners. Some planting areas may be maintained by the City through the establishment of a lighting and landscape district.
4. Parking lot design should require fifty percent (50%) shading within a period of 15 years, or an equivalent as approved by the City through the project PUD, or equivalent mechanism.
5. Landscaping materials shall be selected with consideration for water requirements over the lifetime of the plants. The use of materials with low water requirements, particularly plants that are considered drought tolerant, and the use of efficient irrigation systems is strongly recommended and may be required.
6. Standards for landscape installations should comply with the Energy and Water Conservation Regulations specified in the City Zoning Ordinance, as well as any and all applicable water efficient landscape ordinances.

PUBLIC ART

Public art adds visual interest, focal points and character to the urban landscape. As part of the NEQSP's pedestrian system and scenic corridors, public art will be provided. In general, public art will be included at gateways entry nodes and within pedestrian paths to define community character, to provide visual interest, and to visually lead the observer from one point to another. The character of the public art to be incorporated in a particular project may be further defined through the project PUD or equivalent mechanism. The following guidelines address the specific recommendations for public art.

1. Public art should be considered at prominent visual locations such as at gateway entry nodes, along pedestrian paths, adjacent to buildings and at key focal points.

3.1 AESTHETICS AND VISUAL RESOURCES

2. Public art should consider incorporating themes that reflect community character.
3. Public art should be located in areas where it will be enjoyed by the greatest number of people.

SCREENING AND FENCING GUIDELINES

Walls and fencing within the NEQSP area are intended to screen facilities, and to provide sound barriers, privacy, and security. To a significantly lesser extent they may be utilized to buffer land use boundaries. Policies relating to the interface between uses are addressed in the appropriate use specific guideline discussions. In general, the walls are to be kept to a minimum to avoid blocking views or creating a sense of fragmentation among the land uses in the plan area. The following guidelines shall apply:

1. No outside, unscreened storage is permitted. Loading, service, equipment, and trash enclosure areas shall be fully screened by a combination of fencing, masonry walls, grade separation, and/or dense landscaping.
2. Mechanical equipment, satellite dishes, antennas, and other similar structures shall be groundmounted when feasible. If not ground-mounted, such equipment shall be screened from the view of streets, adjacent properties, and areas open to the general public through the use of parapet walls, roof wells, or other means incorporated as an integral part of building design.
3. All screening and fencing should be consistent with the City of Dixon Zoning Ordinance.
4. Masonry wall design should be compatible with materials used on buildings.

LIGHTING GUIDELINES

Exterior lighting within the NEQSP area is intended to provide for safety and security, as well as to enhance building design and landscaping. It is intended that the intense commercial areas will be brightly lit in a manner that complements the architecture and level of activity anticipated. The following lighting guidelines are designed to encourage creative use of lighting while avoiding nuisances and minimizing energy demands.

1. Project lighting shall be designed to minimize glare for project occupants or neighboring properties.
2. The design of exterior lighting shall, in all cases, consider the long-term energy demand of the lighting program.
3. Light fixtures used on major arterial streets, collector streets, in parking areas, and along public sidewalks shall be selected to improve energy efficiency and reduce glare impacts. Lighting of pedestrian pathways on development projects shall be reviewed in the PUD design review process, or equivalent mechanism.
4. The style and design of lighting fixtures shall be compatible with building design and consistent within individual projects.

SIGNAGE

Signage within individual projects should be consistent throughout the NEQSP area. To ensure that exterior signs for each facility contribute to the overall integrity of the plan area, the following guidelines are suggested. Specific details relating to signage shall be addressed in the project PUD, or equivalent mechanism.

1. A Planned Sign Permit Program is required as a part of the planned development submittals. The program should contain sufficiently detailed renderings to show sizes and placements of proposed signs, proposed materials and color sample boards, and preliminary details of sign construction.
2. Building signs shall not exceed the building height or extend above the building parapet or eaves. Free-standing signs shall not exceed six (6) feet in height, unless otherwise approved by the City through the project PUD, or equivalent mechanism.
3. Signs shall be restricted to tenant identification only, either wall-mounted or free-standing. Unless otherwise approved by the City through the project PUD, or equivalent mechanism.
4. No signs or any other contrivances shall be devised or constructed so as to rotate, gyrate, blink, move or appear to move in any fashion unless otherwise approved by the City through the project PUD, or equivalent mechanism. Inset letters, back lit letters or other similarly permanent letters on solid materials are preferred. Neon lighting is typically discouraged for signage.
5. Administrative sign permits will be issued up to the maximum amount of signage authorized by the Planning Commission.

3.1.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have significant impact on aesthetics if it will:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality; and/or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

There are no designated State Scenic Highways in Solano County or within the vicinity of the Project site. Only one highway section in Solano County is listed as an Eligible State Scenic Highway by the Caltrans Scenic Highway Mapping System; the segment of SR 128 from approximately the town of

3.1 AESTHETICS AND VISUAL RESOURCES

Winters to Rutherford to the west of the county.⁴ This highway segment is not in the vicinity of the Project site, and therefore, the Project would have **no impact** on visual resources within State Scenic Highways.

For a further discussion of this topic, please see Chapter 6, Effects Not Found to be Significant.

IMPACTS AND MITIGATION MEASURES

Impact 3.1-1: The proposed Project would result in substantial adverse effects on scenic vistas (Less than Significant)

Development of the proposed Project would convert the site from its existing use as undeveloped land previously used for agricultural uses to developed residential housing, mixed-use development, commercial uses, and park and trail areas. Implementation of the Project would result in the construction of new single- and multi-story residential units, commercial buildings with outdoor signage, industrial or business-park-like buildings in the DOC, parks and paseos, and a 25-acre retention basin. These new structures and uses could impede existing vista views in the area.

The Project site is not designated as a scenic vista by the City of Dixon General Plan, nor does it contain any unique or distinguishing features that would qualify the site for designation as a scenic vista. Development of the NEQSP area was contemplated in the City's General Plan EIR, and would be governed by the NEQSP General Design Guidelines. In compliance with the NEQSP General Design Guidelines, the proposed Project would incorporate adjacent open space as a visual amenity, include landscaped building setbacks, and preserve view corridors through the site. As mentioned previously, existing panoramic views across the Project site include slight, varied views of the Sierra Nevada to the east and the Coastal Mountain Range to the distant west. Views immediately surrounding the Project site are either dominated by urban, light industrial, or manufacturing uses or agricultural open fields.

Building design would be governed by a variety of guidelines including the broad objectives identified in the NEQSP General Design Guidelines such as siting buildings with regard to the physical features of each Project parcel and adjacent parcels. More specific design guidance is found in the City Municipal Code Section 18.23 which recognizes the interdependence of land values and aesthetics and to provide methods to promote sound land use development and assist in the development of architectural standards and guidelines for residential, office, commercial, retail business, and industrial structures. Chapter 18.23 establishes the height limitations, screening and landscaping, setbacks, and design review requirements for new development. As established in Chapter 18.23, the City Design Review Commission is responsible for reviewing the location, design,

⁴ Caltrans, 2019. Scenic Highways, California State Scenic Highways. List of eligible and officially designated State Scenic Highways. Available: <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>. Accessed January 15, 2024.

and intensity of all exterior lighting of new development. The City of Dixon Planning Commission serves as the City Design Review Commission.

Various temporary visual impacts could occur as a result of construction activities as the Project develops, including grading, equipment and material storage, and staging. Though temporary, some of these impacts could last for several weeks or months during any single construction phase. However, these construction-related impacts would be temporary and viewer sensitivity in the majority of cases would be slight to moderate.

Although the Project site would be converted from an open area to urban uses, compliance with established design guidelines and the creation of view corridors through the Project site would result in a *less-than-significant impact* to scenic vistas.

MITIGATION MEASURE(S)

None required.

Impact 3.1-2: The proposed Project would result substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality (Less than Significant)

The Project site is highly visible from I-80, Vaughn Road, and Pedrick Road. Implementation of the proposed Project would change the existing visual character of the site from an undeveloped site to an urbanized site. The proposed Project would result in an incremental increase in new residential and mixed use development that would alter the existing visual character, scenic resources, and natural features within the urbanized portions of the City of Dixon, thereby incrementally altering the quality of public views from publicly accessible vantage points within the urbanized portions of the City.

The proposed Project would result in the conversion of undeveloped land to urban uses, which would contribute to changes in the regional landscape and visual character of the area. Development of the DOC and the commercial area in the northern portion of the Project site would be consistent visually with existing commercial uses to the north and west of the Project site, such as the TEC Equipment facility to the north and the Walmart Supercenter and GE Dixon Distribution Center to the west. Proposed commercial building heights, colors, and architecture would be similar in nature to surrounding uses, and commercial buildings would be set back a sufficient distance and designed to minimize visual impacts on adjacent uses to the extent practicable. Primary building and Project entries would be well-defined by accent treatments including, but not limited to, special textures, forms, materials, colors, and landscaping in order to provide a sense of entry and facilitate orientation for users and residents. The proposed commercial buildings would be oriented toward the street.

3.1 AESTHETICS AND VISUAL RESOURCES

Proposed residential uses could be up to three stories for high density residential units and up to two stories for medium and low density residential units. Proposed architectural styles for residential units would be complementary in style, colors, and materials without being monotonous.

The proposed retention basin would be approximately 20 feet deep and cover 25.14 acres. The basin would be visually screened by trees and decorative/security fencing along Commercial Drive and a landscaped buffer around the east, west, and south edges.

The Project Site would include three parks: North Park, a Neighborhood Park, and a Linear Park. All three parks would be extensively landscaped with trees, shrubbery, and turf, and include amenities such as covered picnic areas, play areas, pickleball and basketball courts, a softball field/soccer field, a disc golf course, outdoor benches, multi-use paths, and pedestrian and bicycle connections to the DOC, adjacent residential areas, and other park features. The parks would be located in the middle of the Project site, and would serve as a north-south visual break across the site.

Further, streetscapes would be planted with trees and shrubbery to create a consistent feel throughout the Project site. Proposed soundwalls along Pedrick Road, Commercial Drive, and Professional Drive would be visually screened by trees and landscaping.

Development within the Project site is required to be consistent with the General Plan and the Dixon Zoning Ordinance which include design standards in order to ensure quality and cohesive design of the Project site. Zoning Ordinance requirements associated with site planning and development regulations include height limitations, screening and landscaping, setbacks, and design review requirements established in Section 18.23. These standards include specifications for building height, massing, and orientation; exterior lighting standards and specifications; and landscaping standards. This includes the requirement that no multi-family residential structure exceed 38 feet in height, 30 feet in height for single-family residential structures, 35 feet in height for community commercial structures, and that the maximum height of structures for public services be the same as the adjacent zoning districts. Furthermore, as established in Section 18.23 Screening and Landscaping of the City's municipal code, all commercial and industrial districts are required to provide screening and landscaping along all zone boundaries, other than streets, where the building site abuts residential zoning districts. Chapter 18.33 of the City's municipal code also requires that single family residential uses provide at least one street tree for each 50 feet of street frontage. Non-residential and multi-family structures require two street trees are required for each 50 feet of street frontage. According to the Project vesting tentative map, setbacks along public frontages of the Project boundaries are setback varying between 10 feet to 20 feet. The proposed Project would include visual components that would assist in enhancing the appearance of the site following site development. These improvements would include landscaping improvements such as new street trees and other vegetation landscaping and multi-use trails. Implementation of the design standards would ensure quality design throughout the Project site, and result in a Project that would be internally cohesive while maintaining aesthetics similar to surrounding uses.

As described in Article 18.23.010 of the Dixon Municipal Code, the purpose of design review is to promote sound land use development; assist in the development of architectural standards and

guidelines for residential, office, commercial, retail business, and industrial structures. Under Article 40.31.020 of the Dixon Municipal Code, the functions of design review are to review the following:

- a) Siting of all structures;
- b) Landscaping, fencing, and other screening as designed on a landscape or irrigation plan featuring all existing trees and shrubs and proposed plantings;
- c) Design of all circulation and parking and loading facilities for automobiles and bicycles;
- d) Location, design and screening of garbage/recycling facilities;
- e) Details of fencing, public works items such as curb cuts, curbs, gutters, sidewalks, sidewalk design, drainage, and fire hydrants;
- f) Location, design and intensity of all exterior lighting;
- g) Location and design of addressing system or graphics and mail delivery system;
- h) Location and design of all required open space areas;
- i) Exterior elevations or perspective drawings of structures including but not limited to building height, description of all building materials, building colors, screening of utility meters and mechanical equipment;
- j) Design, placement, dimension, colors of all proposed signs and exterior graphics as required by this title;
- k) Design and placement of facilities for disabled persons; and
- l) Design of facilities for compliance with Attachment 4 of California State Water Resources Control Board's Water Quality Order No. 2003-005-DWQ, as may be amended, supplemented or superseded.

Design guidelines, City Code, and site plan and design review processes would ensure that Project development and design would be guided in a cohesive manner, and the impact on the visual character of the site would be *less than significant*.

MITIGATION MEASURE(S)

None required.

Impact 3.1-3: The proposed Project could result in light and glare impacts. (Less than Significant with Mitigation)

Implementation of the proposed Project would introduce new sources of light and glare into the Project area. Potential sources of glare are anticipated to occur primarily from vehicular traffic accessing and departing the Project site, as well as from vehicles stationed within the Project area. In addition, glare may occur from building windows and reflective material surfaces of the DOC and other development within the Project site. However, parking for the proposed residential uses

3.1 AESTHETICS AND VISUAL RESOURCES

would primarily occur within enclosed garages and driveways, where the headlights of parked vehicles are focused on the residential structure. Headlights and windshields would be shielded by the proposed residential structures within the site. Additionally, the Project includes plans for extensive landscaping and open space areas throughout the site, which would provide visual screening and block potential windshield glare for sensitive receptors within the Project site. Residential structures placed along the boundaries of the Project site would provide visual screening and block potential windshield glare to areas surrounding the Project site. Proposed soundwalls along Pedrick Road, Commercial Drive, and Professional Drive would adequately shield adjacent residential uses from roadway light and glare. Headlights from cars accessing the Project site could cause glare along both existing and proposed new roadways, resulting in glare being visible to both onsite and offsite receptors. Uses predominately in the immediate vicinity of the Project site are industrial, manufacturing, or commercial uses not considered to be sensitive receptors to light and glare. However, there is one existing residence within the vicinity of the Project site to the south on Vaughn Road that could be affected by glare resulting from the Project site.

The Project would introduce new sources of nighttime lighting to a site which currently does not have artificial lighting sources. The proposed Project would include exterior light sources such as street lighting, security lighting on the sides of buildings, parking lot lighting for surface parking areas such as the DOC and commercial areas, lighting of public areas including parks and walkways lit signage at the entrances to the Project site and/or within the Project site. It is anticipated that the proposed multi-use path and paseos through the Linear Park would be lit at night for safety purposes. Proposed low- and medium-density residential uses that abut the Linear Park may be exposed to nighttime lighting associated with keeping walking paths lit.

Commercial uses and the DOC in the northern portion of the Project site would likely have lit parking areas that could be visible from the adjacent proposed medium- and high-density residential units. Medium- and large-sized evergreen trees would be planted along “Entrance A” to provide privacy and a visual buffer between the uses. Screening trees would also line internal roadways between the sidewalk and residential areas.

Although these light sources are typical of residential and commercial uses, they would be new sources of light on the Project site. Light sources from the proposed development may affect the surrounding areas by introducing nuisance light into the area and decreasing the visibility of nighttime skies. Additionally, onsite light sources may create light spillover impacts on surrounding areas. As mentioned above, there is one existing residence within the vicinity of the Project site to the south on Vaughn Road that could be affected by light spillover resulting from the Project site.

All development associated with implementation of the proposed Project would be regulated by the Dixon Municipal Code Sections 18.28.020 and 18.28.090, which contains standards for using lighting and building materials that do not produce glare. Section 18.23.170 of the Municipal Code discourages the use of shiny metallic roofing and building materials. In addition, the function of the City Design Review Commission, as identified in Section 18.23 of the Zoning Ordinance, is to review the location, design, and intensity of all exterior lighting of new development. The Zoning Ordinance also contains lighting standards for parking facilities, which requires illumination of parking areas to be directed away from abutting residential sites. The 2022 California Green Building Standards Code,

adopted as Chapter 16.17 of the Dixon Municipal Code, includes a nonresidential mandatory light pollution reduction measure that establishes maximum allowable light and glare standards for outdoor lighting systems for new nonresidential projects (2022 California Green Building Standards Code, 5.106.8 Light pollution reduction). Light standards along roadways and in parking lots would be directed downward and shielded to prevent light spillage. Additionally, the General Plan policy E-1.7 requires industrial, light industrial, and agro-industrial development to meet light and glare performance standards in order to minimize impacts on established or proposed residential areas. Compliance with existing regulations and General Plan policies would ensure that light and glare generated by the proposed Project would be minimized. However, the proposed Project would introduce new sources of light and glare to a previously undeveloped site, and the impact would be **potentially significant**.

MITIGATION MEASURE(S)

Mitigation Measure 3.1-3: *The Project applicant shall develop and implement a signage and lighting plan, as approved in the City's Site Plan and Design Review process, to ensure that all outdoor lighting associated with the proposed Project is designed to minimize lighting that is misdirected, excessive, or unnecessary by requiring lighting for development to be directed downward and minimize spill-over onto adjacent properties.*

SIGNIFICANCE AFTER MITIGATION

Less Than Significant

Implementation of Mitigation Measure 3.1-3 would ensure that new nighttime light from development within the Project area would be sufficiently reduced to avoid disturbing adjacent properties.

CUMULATIVE IMPACTS

The cumulative setting for aesthetics is the City of Dixon and surrounding areas of Solano County.

Impact 3.1-4: The proposed Project, in combination with other cumulative development, could result in substantial adverse effects on scenic vistas (Less than Significant)

Under cumulative conditions, the City of Dixon will continue to build out, adding to the urban landscape and decreasing the number and quality of scenic vistas. As new buildings are constructed, they may obstruct existing scenic views of the Sierra Nevada, Coastal Mountain Range, or sweeping agricultural areas in unincorporated Solano County. Cumulative development is not anticipated to adversely affect designated or eligible State Scenic Highways as the only Eligible State Scenic

3.1 AESTHETICS AND VISUAL RESOURCES

Highway is the segment of SR 128 from approximately the town of Winters to Rutherford to the west of the County.⁵

Nevertheless, cumulative development facilitated by the General Plan could adversely affect the scenic vistas and views available throughout the City, resulting in a potentially cumulative significant impact.

The proposed Project would contribute to the urbanization of the City and result in the construction of new structures that could impede views. The proposed Project is an anticipated development area in the Dixon General Plan as part of the Northeast Quadrant Specific Plan. The proposed Project includes policies and implementing actions aimed at maintaining view corridors across the Project site. The proposed Project would be subject to Zoning Ordinance requirements associated with site planning and development regulations including the height limitations, screening and landscaping, setbacks, and design review requirements established in Section 18.23. Compliance with the requirements within the General Plan and Zoning Code would reduce visual impacts to the greatest extent feasible; and the change of agricultural land to a landscaped subdivision is not necessarily a degrading of visual character. Therefore, the proposed Project would have a less-than-considerable contribution to this impact, and the cumulative impact to scenic vistas would be *less than significant*.

MITIGATION MEASURE(S)

None required.

Impact 3.1-5: The proposed Project, in combination with other cumulative development, could substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality (Less than Significant)

Under cumulative conditions, buildout of the General Plan for Dixon and the surrounding jurisdictions could result in changes to the visual character and quality of the City of Dixon through development of undeveloped areas and/or changes to the character of existing communities. In order to reduce the visual impacts of urban development, development within the City is required to be consistent with the General Plan and the Dixon Zoning Ordinance, which include design standards. These standards include specifications for building height, massing, and orientation, exterior lighting standards, and landscaping standards. Following the City's design requirements will

⁵ Caltrans, 2019. Scenic Highways, California State Scenic Highways. List of eligible and officially designated State Scenic Highways. Available: <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>. Accessed January 15, 2024.

produce urban developments that will be internally cohesive, while maintaining an aesthetic feel similar to that of the surrounding uses.

The loss of the visual appearance of agricultural land within the City limits will change the visual character of the area in. Compliance with the requirements within the General Plan and Zoning Code would reduce visual impacts to the greatest extent feasible; and the change of agricultural land to a urbanized areas is not necessarily a degrading of visual character.

Cumulative development anticipated under the General Plan would have a *less-than-significant cumulative impact* on aesthetics and visual character.

MITIGATION MEASURE(S)

None required.

Impact 3.1-6: The proposed Project, in combination with other cumulative development, could result in light and glare impacts. (Less than Significant)

Existing developed areas in the City currently generate some light and glare, and new development that would be facilitated by the General Plan would result in increased light and glare. Some elements of the built environment, such as parking lots, commercial buildings, and signs, may emit light for 24 hours a day. New sources of daytime glare could include new buildings with reflective surfaces, such as office buildings with glazed windows. Such light and glare could affect sensitive receptors.

Future projects within Dixon would be required to implement existing City regulations aimed at reducing light and glare impacts to ensure that no unusual daytime glare or nighttime lighting is produced. All development within the City is regulated by the Dixon Municipal Code Sections 18.28.020 and 18.28.090, which contain standards for using lighting and building materials that do not produce glare. Section 18.23.170 of the Municipal Code discourages the use of shiny metallic roofing and building materials. In addition, the function of the City Design Review Commission, as identified in Section 18.23 of the Zoning Ordinance, is to review the location, design, and intensity of all exterior lighting of new development. The Zoning Ordinance also contains lighting standards for parking facilities. The 2022 California Green Building Standards Code, adopted as Chapter 16.17 of the Dixon Municipal Code, includes a nonresidential mandatory light pollution reduction measure that establishes maximum allowable light and glare standards for outdoor lighting systems for new nonresidential projects (2022 California Green Building Standards Code, 5.106.8 Light pollution reduction). Compliance with existing regulations and General Plan policies would ensure that light and glare generated by cumulative development would be minimized. Compliance with existing regulations and policies would ensure that cumulative development within the City would result in *less-than-significant cumulative impacts* associated with increased light and glare.

MITIGATION MEASURE(S)

None required.

This section assesses potential environmental impacts on agricultural resources from development of The Campus, including those related to Prime Farmland, Unique Farmland, and Farmland of Statewide Importance; agricultural zoning and Williamson Act contracts; and the conversion of farmland to non-agricultural uses. This section describes existing agricultural resources on the Project site, as well as relevant federal, State, and local regulations and programs.

During the NOP comment period, three letters were received regarding agricultural resources. The main concerns were regarding potential land use changes that would reduce open space or agricultural land uses and increase residential or other land use involving increased development, potential effects to adjacent agricultural operations and/or agricultural processing facilities, and buffering urban uses from agricultural uses. These topics are discussed in this section.

This section relies on the following sources:

- City of Dixon General Plan and EIR;
- Northeast Quadrant Specific Plan (NEQSP);
- Department of Conservation Farmland Mapping & Monitoring Program (FMMP); and
- Solano County GIS data.

3.2.1 ENVIRONMENTAL SETTING

AGRICULTURAL CONTEXT

Statewide

In California, productive farmland acreage has been gradually declining, due primarily to the conversion of farmland to non-agricultural uses. The Department of Conservation has recorded the conversion of over 1.6 million acres of agricultural land in California to nonagricultural purposes since 1984. The largest losses in agricultural land have been from Prime Farmland (-816,123 acres), Farmland of Statewide Importance (-455,287 acres), and Grazing Land (-423,565 acres)—some of California’s best farmland. The largest agricultural category to increase over this period has been Unique Farmland (100,646 acres), due to expansion of high value crops, primarily orchards and vineyards.¹

Between 2016-2018, irrigated farmland was the source of 30 percent (11,465 acres) of all new Urban and Built-up Land. Prime Farmland was the source of 12 percent (4,748 acres) of urban land. Farmland of Statewide Importance and Unique Farmland combined as the further source of 18 percent (6,717 acres) of urban land. Another 52 percent (19,454 acres) of new Urban and Built-up Land was developed from land dedicated to dryland farming and grazing. The remaining 18 percent (6,664 acres) was derived from natural vegetation or vacant lands (Other Land).²

¹ California Department of Conservation, 2018. Division of Land Resource Protection (DLRP). 2016-2018 California Farmland Conversion Report, Documenting Changes in Agricultural Land Use Since 1984. Page 4.

² California Department of Conservation, 2018. Division of Land Resource Protection (DLRP). 2016-2018 California Farmland Conversion Report, Documenting Changes in Agricultural Land Use Since 1984. Page 2.

Solano County

Agriculture takes place on 62 percent of the land in Solano County, with irrigated agriculture comprising half of the county's agricultural lands. The remainder is devoted to the dryland farming in Montezuma Hills and grazing/pasture throughout the county. Leading crops in Solano County are nursery stock, cattle and calves, processing tomatoes, alfalfa hay, feeder lambs, wine grapes, milk, walnuts, dairy cows and irrigated wheat. Solano ranks as one of the top five counties in California for production of sheep and lambs, grain corn, sudangrass hay, and safflower. Agricultural production and the related businesses continue to be a significant contributor to the county's economy, generating almost \$1.3 billion each year in gross output value. Agriculture provides 4,187 jobs directly employed on ranches and farms plus 5,890 indirect jobs through the multiplier effect. Additional inputs into infrastructure, processing and handling of raw product and supporting industries can increase the overall output significantly.³

In 2022, the county's top 10 commodities were tomatoes (processing), nursery products, cattle and calves, alfalfa (hay), grapes (wine), almonds, walnuts, pollination, sheep and lambs, and prunes (dried).⁴ The gross value of Solano County agricultural production in 2022 was \$390,881,000, representing a \$16,761,000, or a 4 percent, decrease from 2021.⁵

EXISTING FARMLAND

Agriculture plays a role as an important industry, a predominant feature of the visual landscape, and a major contributor of the City's identity. Dixon's agricultural heritage derives from its location in the Dixon Ridge farming area, which has some of Solano County's most fertile soil. The majority of the goods produced in this area are field crops, including tomatoes, alfalfa, and sunflowers. Two of the few processing facilities in Solano County, the Campbell Soup Plant and Superior Meat, are located in the Dixon Ridge region, an alluvial deposit of silty clay loam, underlain by layers of water-bearing gravel.⁶ The majority of existing agricultural uses in the city are related to crops, including some orchard crops grown in the city's sphere of influence (SOI). Grazing lands are interspersed throughout the city and SOI. Agricultural uses, including grazing and farmland, are also located adjacent to the city limit, with large areas around the periphery of the City limit.⁷ Areas adjacent to the east of the Project site are designated and zoned for agriculture. The Campbell Soup Supply Company, a tomato processing facility, is adjacent to the Project site along the east side of Pedrick Road.

Portions of the NEQSP area are developed with urban uses, while a significant portion remains undeveloped. The Project site is nearly completely used for agricultural purposes. However, the Project site is planned for urban development in both the City's General Plan and the NEQSP. Therefore, the

³ Solano County, 2024. Agriculture, Department Overview. Available: https://www.solanocounty.com/depts/agriculture/departments/department_overview.asp#:~:text=Leading%20crops%20in%20Solano%20County,sudan%20grass%20hay%20and%20safflower. Accessed January 23, 2024.

⁴ Solano County, 2022. Solano County Crop and Livestock Report, 73rd Annual, 1949-2022. Available: <https://www.solanocounty.com/civicax/filebank/blobdload.aspx?BlobID=41365>. Accessed January 23, 2024.

⁵ Solano County, 2022. Solano County Crop and Livestock Report, 73rd Annual, 1949-2022. Available: <https://www.solanocounty.com/civicax/filebank/blobdload.aspx?BlobID=41365>. Accessed January 23, 2024.

⁶ City of Dixon, 2020. General Plan 2040 Environmental Impact Report (SCH# 2018112035), Public Review Draft. Page 3.2-2.

⁷ City of Dixon, 2020. General Plan 2040 Environmental Impact Report (SCH# 2018112035), Public Review Draft. Page 3.2-2.

Project site, and therefore the conversion of its agricultural use, has been contemplated and planned for the past 25 years.

FARMLAND CLASSIFICATIONS

The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) classifies farmland into the following categories based on soil type and current land use:

- Prime Farmland. Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- Farmland of Statewide Importance. Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- Unique Farmland. Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include nonirrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.
- Farmland of Local Importance. Land that is either currently producing crops or has the capability to do so. It is land other than Prime Farmland, Farmland of Statewide Importance, or Unique Farmland, but it may be important to the local economy due to its productivity. This designation is determined by each county's board of supervisors and a local advisory committee.
- Grazing Land. Land on which the existing vegetation, whether grown naturally or through management, is suitable for livestock grazing.
- Urban and Built-Up Land. Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- Other Land. Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

For environmental review purposes under CEQA, the categories of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land constitute 'agricultural land' (Public Resources Code Section 21060.1). The remaining categories are used for reporting changes in land use as required for FMMP's biennial farmland conversion report.

3.2 AGRICULTURAL RESOURCES

The Project site is almost exclusively identified as Prime Farmland, as indicated in **Table 3.2-1** and shown on **Figure 3.2-1**. Designations of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance are referred to collectively in this analysis as Important Farmland.

TABLE 3.2-1: FARMLAND TYPES AND ACREAGES

FARMLAND CLASSIFICATION	THE CAMPUS PROJECT SITE (ACRES)	REMAINDER OF NEQSP AREA (ACRES)	TOTAL IN NEQSP AREA (ACRES)
Prime Farmland	256.72	180.63	437.35
Farmland of Statewide Importance	0	0	0
Unique Farmland	0.09	15.27	15.36
Grazing Land	0.51	126.61	127.12
Urban and Built-Up Land	1.52	63.23	64.75
Other Land	0.77	15.57	16.34
Total	259.61	401.31	660.92

SOURCE: FARMLAND MAPPING AND MONITORING PROGRAM, 2023.

SOIL TYPES

The Project site is underlain by well-drained soils deposited in alluvial fans. Class I soils on the site include BrA – Brentwood Clay Loam, Yo – Yolo Loam, and Ys – Yolo Silty Clay Loam. Class II soil type Ca – Capay Silty Loam also underlays the Project site. Both Class I and Class II soils support agricultural uses.

3.2.2 REGULATORY SETTING

FEDERAL

Federal Farmland Protection Policy Act, 7 U.S. Code Section 4201 and 7 Code of Federal Regulations 658

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) oversees the Farmland Protection Policy Act (FPPA) (7 U.S. Code [USC] Section 4201 et seq.; see also 7 Code of Federal Regulations [CFR] 658). The FPPA (a subtitle of the 1981 Farm Bill) is national legislation with the following stated purpose: "to minimize the extent to which federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses." The FPPA applies to projects and programs that are sponsored or financed in whole or in part by the federal government and does not apply to private construction projects subject to federal permitting and licensing, projects planned and completed without assistance from a federal agency, federal projects related to national defense during a national emergency, or projects proposed on land already committed to urban development. The FPPA spells out requirements to ensure federal programs to the extent practical are compatible with state, local, and private programs and policies to protect farmland and calls for the use of the Land Evaluation and Site Assessment (LESA) system to aid in analysis.

U.S. Department of Agriculture Natural Resources Conservation Service

The U.S. Department of Agriculture's Natural Resources Conservation Service maps soils and farmland uses to provide comprehensive information necessary for understanding, managing, conserving, and sustaining the nation's limited soil resources. In addition to many other natural resource conservation programs, the NRCS manages the Farmland Protection Program, which provides funds to help purchase development rights to keep productive farmland in agricultural uses. Working through existing programs, USDA joins with state, tribal, or local governments to acquire conservation easements or other interests from landowners.

STATE

Farmland Mapping and Monitoring Program

The California Department of Conservation FMMP classifies farmland into five different categories based on soil type and current land use, as described in the Environmental Setting. The minimum mapping unit is 10 acres, with the exception of grazing land, which is 40 acres. See Table 3.2-1 for a listing of Project site acreage by farmland classification.

California Farmland Conservancy Program

The California Farmland Conservancy Program (Public Resources Code Section 10200 *et seq.*) supports the voluntary granting of agricultural conservation easements from landowners to qualified nonprofit organizations, such as land trusts, as well as local governments. Conservation easements are voluntarily established restrictions that are permanently attached to property deeds, with the general purpose of retaining land in its natural, open-space, agricultural, or other condition while preventing uses that are deemed inconsistent with the specific conservation purposes expressed in the easements. Agricultural conservation easements define conservation purposes that are tied to keeping land available for continued use as farmland. Such farmlands remain in private ownership and the landowner retains all farmland use authority, but the farmland is restricted in its ability to be subdivided or used for non-agricultural purposes, such as urban use.

California Right to Farm Act

The California Right to Farm Act (California Civil Code Section 3482.5) establishes that no agricultural activity, operation, or facility, conducted or maintained for commercial purposes and in a manner consistent with established customs and standards, shall become a nuisance after it has been in operation for more than three years if it was not a nuisance at the time it began. The Right to Farm Act requires that as a part of real estate transactions, land sellers and agents must disclose whether the property is located within one mile of farmland as designated on the most recent Important Farmland Map. Any of the five agricultural categories on the map qualifies for disclosure purposes, including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land.

California Land Conservation Act (Williamson Act)

The California Land Conservation Act (Government Code Section 51200 *et seq.*) of 1965, commonly known as the Williamson Act, provides a tax incentive for the voluntary enrollment of agricultural and open space lands in contracts between local government and landowners. The contract restricts the land to agricultural and open space uses and compatible uses defined in State law and local ordinances. An agricultural preserve, which is established by local government, defines the boundary of an area within which a city or county will enter into contracts with landowners. Local governments calculate the property tax assessment for lands under contract based on the actual use of the land rather than the potential land value assuming full development.

Williamson Act contracts are effective for periods of 10 years and longer. The contract is automatically renewed each year, maintaining a constant, 10-year contract, unless the landowner or local government files to initiate non-renewal. Should that occur, the Williamson Act would terminate 10 years after the filing of a notice of non-renewal. Only a landowner can petition for a contract cancellation. Tentative contract cancellations can be approved only after a local government makes specific findings and determines the cancellation fee to be paid by the landowner. There are no Williamson Act contracts in effect on the Project site.

LOCAL

Solano County Code Chapter 2.2

Commonly known as the “Right-to-Farm Ordinance,” Solano County Code Chapter 2.2 protects agricultural operations from nuisance complaints, which are most commonly issued when residential uses are located adjacent to agricultural operations. These complaints can cease or curtail agricultural operations and prevent investment in local agricultural infrastructure or operations that would result in a boost to the local economy. Chapter 2.2 protects the right of an agricultural operator to continue any agricultural operation that took place before the establishment of adjacent residential uses. Additionally, upon the purchase of real property in agricultural areas, the County notifies the buyers to understand and accept inconveniences or discomforts resulting from nearby agricultural activities as a normal and necessary aspect of living in a rural or agriculturally productive area. To assist in resolving problems between residential and agricultural land use, an Agricultural Grievance Committee has been created in Solano County to arbitrate and mediate disputes concerning agricultural operations.

Northeast Quadrant Specific Plan

Adopted in 1995, the Northeast Quadrant Specific Plan (NEQSP) establishes a land use and circulation plan, policies, and guidelines for the ultimate development of 643 acres in the northeast portion of the City of Dixon. The purpose of the NEQSP was to institute development criteria for this parcel after it was rezoned from agriculture to Employment Center (E) and Highway Commercial (HC) under the 1993 General Plan. Historically, the site has been intensively cultivated to grow field and orchard crops. Since adoption of the Plan, land in the western portion of the Northeast Quadrant has been developed with commercial uses while agricultural uses continue to occupy land in the eastern portion along Pedrick

Road. Land use goal 7 in the Northeast Quadrant Plan specifies agricultural buffers as parts of the plan-wide open space system.

City of Dixon Municipal Code

TITLE 18 ZONING

The Dixon Municipal Code contains one agricultural zoning code district, AG. The Code lists specific intentions informing the AG district, including:

- A. To reserve for exclusive agricultural use appropriately located areas which are suitable for raising crops or livestock because of high quality soils, existing or potential irrigation works, adequate drainage, suitable climate or other factors and which are indicated on the land use diagram of the Dixon General Plan.
- B. To provide locations for permanent dwellings and transient accommodations for persons gaining their livelihoods from agricultural pursuits.
- C. To ensure adequate light, air and privacy for each dwelling unit.
- D. To provide appropriate locations for facilities for the handling, processing, sale and shipment of agricultural produce and livestock.
- E. To provide appropriate locations for certain types of establishments primarily serving agricultural producers.
- F. To provide appropriate locations for certain predominately open uses of land which are harmonious with agricultural users but are not harmonious with urban uses, including natural gas, oil, water and other types of drilling.
- G. To prevent the intrusion of urban development into agricultural areas in such manner as to make agricultural production uneconomical or impractical.
- H. To prevent premature development of certain lands which eventually will be appropriate for urban uses until the installation of streets, utilities and community facilities makes orderly development possible.
- I. To further the agricultural land protection goals and policies of the Dixon General Plan.

There are three areas of the city currently zoned for agricultural (AG) use: one area north of I-80 at Currey Road; one just south of I-80 near Pedrick Road; and one at the southern edge of the City on Pitt School Road. However, the City's General Plan does not have a land use designation that corresponds to an agricultural zone. Properties that currently have an AG zone would be rezoned to match the General Plan land use designation. Under the proposed Project, the Dixon zoning map would be updated for the Project site to ensure consistency between the new land use designations and the zoning code.

City of Dixon General Plan

The City of Dixon's General Plan contains the following goals and policies that are relevant to agricultural resources:

3.2 AGRICULTURAL RESOURCES

NATURAL ENVIRONMENT

GOAL NE-1: Preserve, protect, and enhance natural resources, habitats, and watersheds in Dixon and the surrounding area, promoting responsible management practices.

Policy NE-1.1 Preserve the natural open space and agricultural lands that surround Dixon through continued leadership in cross-jurisdictional conservation initiatives such as the Vacaville-Dixon Greenbelt and the Davis-Dixon greenbelt.

Policy NE-1.5 Continue to allow agriculture as an interim use on land within the City that is designated for future urban use.

Action NE-1.A Adopt a Right to Farm ordinance that protects the rights of agricultural operations in areas adjacent to the City to continue operations and seeks to minimize conflicts with adjacent urban uses in Dixon.

LAND USE AND COMMUNITY CHARACTER

GOAL LCC-1: Focus future development so that it is contiguous to existing developed areas and supports efficient delivery of public services and infrastructure.

Policy LCC-1.1 Recognize and maintain Dixon as a community surrounded by productive agricultural land and greenbelts.

Policy LCC-1.2 Maintain designated urban-agricultural buffers within City jurisdiction to minimize conflicts with adjoining agricultural uses.

Policy LCC-1.3 Promote a land and resource efficient development pattern and limit “leap frog” development in order to support efficient delivery of public services and infrastructure, conserve agricultural and open space lands, reduce vehicle trips, and improve air quality.

3.2.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact on agricultural resources if it would:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
- Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined by Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g));

- Result in the loss of forest land or conversion of forest land to non-forest use; or
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

METHODOLOGY AND ASSUMPTIONS

Farmland resource acreages were assessed based on the California Department of Conservation FMMP, a biennial report and mapping resource on the conversion of farmland and grazing land, and from the USDA Natural Resources Conservation Service Web Soil Survey. Williamson Act contract lands were identified by geographic information systems (GIS) data from Solano County. Using these sources, the proposed Project was analyzed for potential conversion of Important Farmland and other changes resulting from the proposed Project that may result in the conversion of farmland to urban uses.

The Project site is currently zoned as Professional & Admin Office (PAO-PUD), Neighborhood Commercial (CN-PUD), and Light Industrial (ML-PUD), which are designations used for future urban development as defined in the City's Zoning Code. Neither the existing nor proposed zoning designations allow for ongoing agricultural uses. Further, the site is not encumbered by a Williamson Act contract. Therefore, the proposed Project would not conflict with existing zoning for agricultural use and there would be no impact to Williamson Act lands.

There is no forest land or timber land on or near the proposed Project site. Therefore, the Project would have no impact on the conversion of forest land or timber land.

For a further discussion of these topics, please see Chapter 6, Effects Not Found to be Significant.

IMPACTS AND MITIGATION

Impact 3.2-1: Implementation of the proposed Project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. (Significant and Unavoidable)

Development of the proposed Project would convert 256.72 acres of Prime Farmland, 0.09 acres of Unique Farmland, and 0.51 acres of Grazing Land to non-agricultural uses. Implementation of the proposed Project would convert approximately 59 percent of the Prime Farmland, and approximately 45 percent of all Important Farmland, remaining in the NEQSP area to urban uses.

Although the proposed Project is consistent with the Dixon General Plan's land use designation which anticipates the property developing to urban uses, development of the proposed Project would result in the conversion of 257.32 acres of Important Farmland to non-agricultural uses, directly converting Important Farmland to urban uses. The Northeast Quadrant Specific Plan EIR identified that conversion of Prime Farmland within the NEQSP area would be a significant and unavoidable impact.

3.2 AGRICULTURAL RESOURCES

The Project site is currently in active agricultural production while awaiting development for urban uses, consistent with General Plan Policy NE-1.5. As shown in Table 3.2-1, the Project site is almost exclusively identified as Prime Farmland due to the underlying soil type.

As discussed in the City General Plan, there is no land within the city limits with an agricultural land use designation. The Project site is currently zoned for Professional & Admin Office (PAO-PUD), Neighborhood Commercial (CN-PUD), and Light Industrial (ML-PUD), and would be rezoned to Campus Mixed Use Planned Development (CAMU-PD) as part of the proposed Project. All of these zones anticipate development and the conversion of lands in current agricultural production to non-agricultural uses. Although the Project site was already designated for development in the General Plan and NEQSP, the proposed Project would nevertheless remove 257.32 acres of Important Farmland from production, which would be a *potentially significant* impact.

MITIGATION MEASURE(S)

Mitigation Measure 3.2-1: *The Project proponent shall provide conservation of agricultural land within the Dixon Planning Area or within a ten-mile radius of the City at a 1:1 ratio, or pay the appropriate fee to participate in the City's master agricultural conversion program.*

As described in the NEQSP, applicants for development projects in the NEQSP area would be required to provide conservation of agricultural land within the Dixon Planning Area or within a ten-mile radius of the City at a 1:1 ratio, or pay the appropriate fee to participate in the City's master agricultural conversion program.

SIGNIFICANCE AFTER MITIGATION

Significant and Unavoidable

Conversion of agricultural land to urban use is not directly mitigable, aside from preventing development altogether, as agricultural land is a finite and irreplaceable resource. The City's General Plan and the NEQSP reflect a policy determination to allow a certain amount of growth to occur in the city, which necessitates conversion of farmland to urban uses. Beyond disallowing the project, there are no feasible mitigation measures for agricultural land conversion that would also fulfill the objectives of and implement the Project as proposed. The impact would remain *significant and unavoidable*.

Impact 3.2-2: Implementation of the proposed Project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. (Less than Significant)

Lands to the east of the Project site are designated by Solano County as Agricultural, and would continue to be in agricultural production. A portion of those lands are designated as Prime Farmland, Urban and Build-Up Land (Campbell Soup Supply Company), and Other Land. Areas to the east of the Project site are outside of the Dixon city limits and are governed by the Solano County General Plan.

West of the Project site are lands that are within the NEQSP area and are planned for development under the City's General Plan and the NEQSP. However, there are portions of currently undeveloped land west of the Project site, north of the Walmart store, and south of I-80 that are identified as Prime Farmland by the FMMP. Other areas to the southwest, but within the NEQSP area, include Grazing Land and Urban and Built-Up Land (Walmart and GE Dixon Distribution Center).

Although development of the proposed Project would require the connection of essential infrastructure, including roadways, water, sewer, storm drainage connections, between existing facilities to the west and the Project site, these infrastructure expansions would occur in areas already anticipated for development in the NEQSP area. Infrastructure would be placed within existing roadways or within roadways proposed by the Project.

General Plan policy LCC-1.1 states that the City will recognize and maintain the city as a community surrounded by productive agricultural land and greenbelts. Policy NE-1.1 states that the City will preserve the natural open space and agricultural lands that surround Dixon through continued leadership in cross-jurisdictional conservation initiatives. Compliance with City policies would preserve agricultural lands beyond the Project site.

Development of the proposed Project would not result in the conversion of, or other changes to, the environment that could result in the conversion of Important Farmland to non-agricultural use. Therefore, the impact would be *less than significant*.

MITIGATION MEASURE(S)

None required

CUMULATIVE IMPACTS

The cumulative context for the loss of agricultural land is Solano County, with an understanding of the historic trend in California to convert farmland to non-agricultural uses.

Impact 3.2-3 Implementation of the proposed Project, in combination with other cumulative development, would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use (Significant and Unavoidable)

A significant cumulative impact could occur if the proposed Project, in conjunction with other reasonably foreseeable projects in the area, results in indirect impacts that exert pressure on agricultural lands to convert to non-agricultural use. Such indirect impacts can include the division of large tracts of continuous agricultural land into smaller, less agriculturally viable tracts; the presence of incompatible uses adjacent to existing agricultural operations that could lead to the restriction of chemical use and/or complaints regarding noise, dust, and odors; increases in land values and taxes that exert pressure on agricultural landowners to convert to urban uses; and loss of agricultural support infrastructure, such as processing facilities. In addition, urban growth may increasingly compete with agriculture for the use of water resources, and may conflict with operational use of area roadways.

3.2 AGRICULTURAL RESOURCES

Dixon is surrounded on all sides by agricultural land. While there are some pockets of land within the City limits that are still being farmed, there are no agriculturally designated lands in the City; the City intends to grow within its existing City limits and limit development outside of the City limits. However, suburban sprawl, particularly in areas where there are adequate resources and open land, continues in Solano County and throughout the state. The conversion of agricultural land to urban uses is a potentially significant cumulative impact.

The proposed Project is within the NEQSP and within the City limits. It is planned for urban development in the City's General Plan and NEQSP, although it is currently being farmed. The proposed Project would result in the conversion of 257.32 acres of Important Farmland to non-agricultural uses. Further, development of the proposed Project may encourage other areas within the NEQSP area to develop, further removing Important Farmland from production. The proposed Project would have a considerable contribution to a cumulative loss of agricultural land, and the impact would be **potentially significant**.

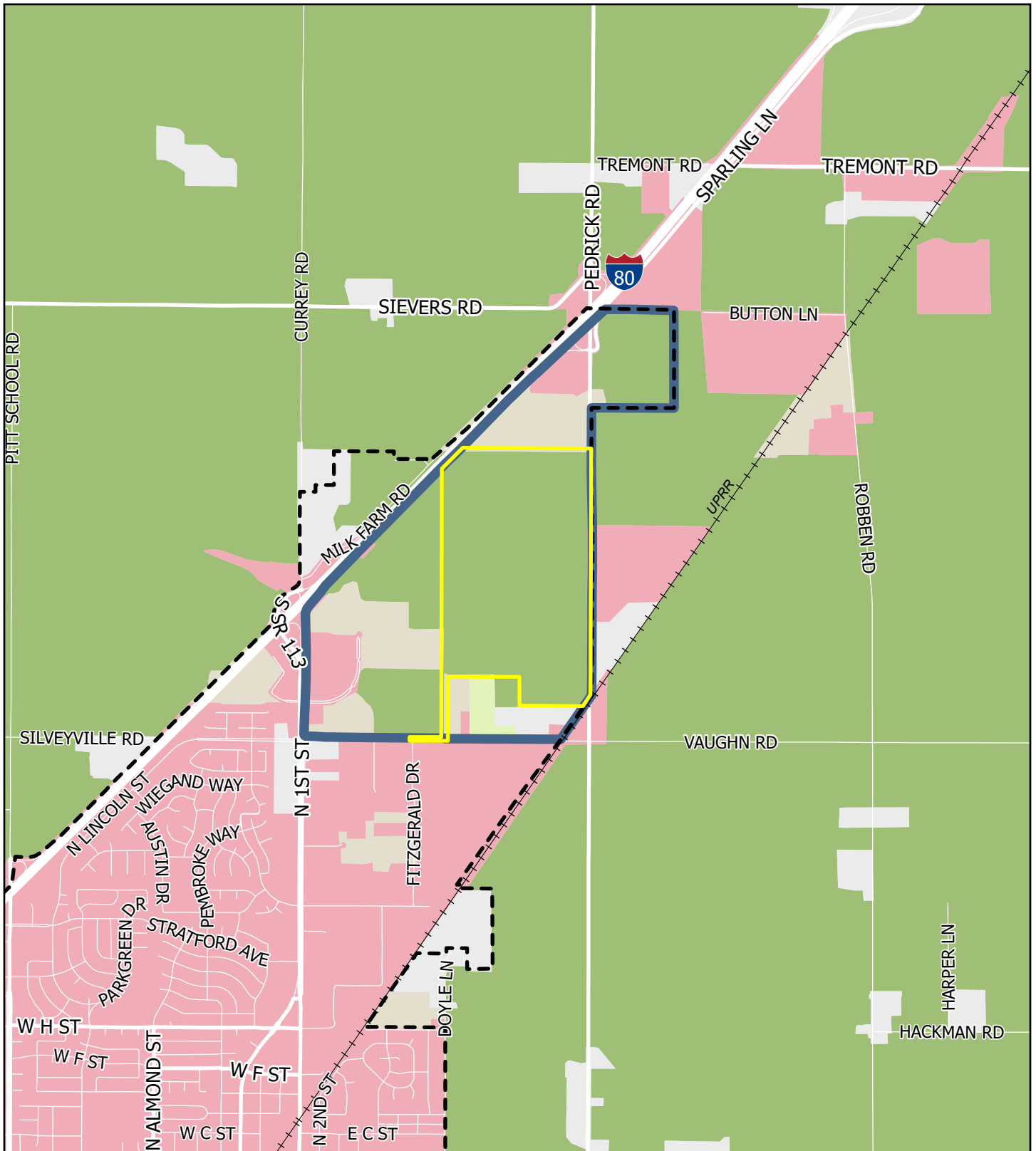
MITIGATION MEASURE(S)

Mitigation Measure 3.2-3: Implement Mitigation Measure 3.2-1.

SIGNIFICANCE AFTER MITIGATION

Significant and Unavoidable

Conversion of agricultural land to urban use is not directly mitigable, aside from preventing development altogether, as agricultural land is a finite and irreplaceable resource. The City's General Plan and the NEQSP reflect a policy determination to allow a certain amount of growth to occur in the city, which necessitates conversion of farmland to urban uses. Beyond disallowing the project, there are no feasible mitigation measures for agricultural land conversion that would also fulfill the objectives of and implement the Project as proposed. The impact would remain **significant and unavoidable**.



LEGEND

- The Campus Project Site
- Northeast Quadrant Specific Plan Area
- City of Dixon
- Unique Farmland
- Grazing Land
- Other Land
- Prime Farmland
- Urban and Built-Up Land

THE CAMPUS EIR

Figure 3.2-1. Prime Farmland



Sources: California Department of Conservation, Farmland Mapping & Monitoring Program, Solano County 2020; Solano County GIS; CalTrans, Map date: April 25, 2024.

The purpose of this EIR section is to identify the regional air quality, current attainment status of the air basin, local sensitive receptors, emission sources, and impacts that are likely to result from Project implementation. Following this discussion is an assessment of consistency of the proposed Project with applicable policies and local plans. The Greenhouse Gases and Climate Change analysis is located in Section 3.7, and the Energy analysis is located in Section 3.5.

Information in this section is based in part on the following resources and reference documents:

- *Traffic Impact Analysis for the Campus 257 NEQSP* (Flecker Associates, 2023),¹
- *Air Quality and Land Use Handbook: A Community Health Perspective* (California Air Resources Board, 2005),²
- *Handbook for Assessing and Mitigating Air Quality Impacts* (Yolo-Solano Air Quality Management District, 2007),³
- *California Emissions Estimator Model* (CalEEMod v. (v.2020.1.1.21) (CAPCOA, 2023).⁴

During the NOP comment period for the EIR, comments regarding this topic were received from the Solano County Department of Resource Management (October 1, 2023). The portion of this comment that relates to this topic (odors) is addressed within this section. Full comments are included in Appendix A of this EIR.

3.3.1 ENVIRONMENTAL SETTING

SACRAMENTO VALLEY AIR BASIN

Topography and Meteorology

The proposed Project is located within the boundaries of the Sacramento Valley Air Basin (SVAB). The SVAB encompasses eleven counties including all of Shasta, Tehama, Glenn, Colusa, Butte, Sutter, Yuba, Sacramento, and Yolo Counties, the westernmost portion of Placer County and the northeastern half of Solano County (including the City of Dixon). The SVAB is bounded by the North Coast Ranges on the west and Northern Sierra Nevada Mountains on the east. The intervening terrain is relatively flat.

Hot dry summers and mild rainy winters characterize the Mediterranean climate of the SVAB. During the year the temperature may range from 20 to 115 degrees Fahrenheit with summer highs usually in the 90s and winter lows occasionally below freezing. Average annual rainfall is about 19 inches, and the rainy season generally occurs from November through March. The prevailing winds are moderate in strength and vary from moist clean breezes from the south to dry land flows from the north.

¹ Flecker Associates. 2023. *Traffic Impact Analysis for the Campus 257 NEQSP*. December 6, 2023.

² California Air Resources Board (CARB). 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. Available: <https://ww3.arb.ca.gov/ch/handbook.pdf>

³ Yolo-Solano Air Quality Management District. 2007. Adopted July 11, 2007. Available: <https://www.ysaqmd.org/wp-content/uploads/Planning/CEQAHandbook2007.pdf>

⁴ California Air Pollution Control Officers Association (CAPCOA). 2023. CalEEMod (v.2022.1.121). Available: www.caleemod.com

The mountains surrounding the SVAB create a barrier to airflow, which can trap air pollutants under certain meteorological conditions. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells collect over the Sacramento Valley. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows air pollutants to become concentrated in a stable volume of air. The surface concentrations of pollutants are highest when these conditions are combined with temperature inversions that trap pollutants near the ground.

The ozone season (May through October) in the Sacramento Valley is characterized by stagnant morning air or light winds, with the delta sea breeze arriving in the afternoon out of the southwest. Usually, the evening breeze transports the airborne pollutants to the north out of the Sacramento Valley. During about half of the days from July to September, however, a phenomenon called the "Schultz Eddy" prevents this from occurring. Instead of allowing for the prevailing wind patterns to move north carrying the pollutants out, the Schultz Eddy causes the wind pattern to circle back to the south. This phenomenon has the effect of exacerbating the pollution levels in the area and increases the likelihood of violating federal or state standards.

CRITERIA POLLUTANTS

All criteria pollutants can have human health and environmental effects at certain concentrations. The United States Environmental Protection Agency (U.S. EPA) uses six "criteria pollutants" as indicators of air quality and has established for each of them a maximum concentration above which adverse effects on human health may occur. These threshold concentrations are called National Ambient Air Quality Standards (NAAQS). In addition, California establishes ambient air quality standards, called California Ambient Air Quality Standards (CAAQS). California law does not require that the CAAQS be met by a specified date as is the case with NAAQS.

The ambient air quality standards for the six criteria pollutants (as shown in Table 3.3-1) are set to protect public health and the environment within an adequate margin of safety (as provided under Section 109 of the Federal Clean Air Act [FCAA]). Epidemiological, controlled human exposure, and toxicology studies evaluate potential health and environmental effects of criteria pollutants, and form the scientific basis for new and revised ambient air quality standards. Principal characteristics and possible health and environmental effects from exposure to the six primary criteria pollutants generated by the Project are discussed below.

Ozone (O₃) is a photochemical oxidant and the major component of smog. While O₃ in the upper atmosphere is beneficial to life by shielding the earth from harmful ultraviolet radiation from the sun, high concentrations of O₃ at ground level are a major health and environmental concern. O₃ is not emitted directly into the air but is formed through complex chemical reactions between precursor emissions of volatile organic compounds (VOCs) and oxides of nitrogen (NO_x) in the presence of sunlight. These reactions are stimulated by sunlight and temperature so that peak O₃ levels occur typically during the warmer times of the year. Both VOCs and NO_x are emitted by transportation and industrial sources. VOCs are emitted from sources as diverse as autos, chemical manufacturing, dry cleaners, paint shops and other sources using solvents.

The reactivity of O₃ causes health problems because it damages lung tissue, reduces lung function and sensitizes the lungs to other irritants. Scientific evidence indicates that ambient levels of O₃ not only affect people with impaired respiratory systems, such as asthmatics, but affect healthy adults and children as well. Exposure to O₃ for several hours at relatively low concentrations has been found to significantly reduce lung function and induce respiratory inflammation in normal, healthy people during exercise. This decrease in lung function generally is accompanied by symptoms including chest pain, coughing, sneezing and pulmonary congestion.

Studies show associations between short-term ozone exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to ozone may increase the risk of respiratory-related deaths.⁵ The concentration of ozone at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion of ozone and a 50 percent decrement in forced airway volume in the most responsive individual. Although the results vary, evidence suggests that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum ozone concentration reaches 80 parts per billion.⁶ The average background level of ozone in California and Nevada is approximately 48.3 parts per billion, which represents approximately 77 percent of the total ozone in the western region of the U.S.⁷

In addition to human health effect, ozone has been tied to crop damage, typically in the form of stunted growth, leaf discoloration, cell damage, and premature death. O₃ can also act as a corrosive and oxidant, resulting in property damage such as the degradation of rubber products and other materials.

Carbon monoxide (CO) is a colorless, odorless and poisonous gas produced by incomplete burning of carbon in fuels. Carbon monoxide is harmful because it binds to hemoglobin in the blood, reducing the ability of blood to carry oxygen. This interferes with oxygen delivery to the body's organs. The most common effects of CO exposure are fatigue, headaches, confusion, and dizziness due to inadequate oxygen delivery to the brain. For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress. Inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance. Unborn babies whose mothers experience high levels of CO exposure during pregnancy are at risk of adverse developmental effects. Exposure to CO at high concentrations can also cause fatigue, headaches, confusion, dizziness, and chest pain. There are no ecological or environmental effects to ambient CO.⁸

⁵ United States Environmental Protection Agency (USEPA). 2019. Health Effects of Ozone Pollution. Available: <https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution>

⁶ United States Environmental Protection Agency (USEPA). 2019. Health Effects of Ozone In the General Population. Available: <https://www.epa.gov/ozone-pollution-and-your-patients-health/health-effects-ozone-general-population>

⁷ California Institute of Technology, Jet Propulsion Laboratory. 2015. NASA: Background Ozone a Major Issue in U.S. West. September 29, 2025. Available: <https://www.jpl.nasa.gov/news/nasa-background-ozone-a-major-issue-in-us-west>

⁸ California Air Resources Board (CARB). 2019. Carbon Monoxide and Health. Available: <https://ww3.arb.ca.gov/research/aaqs/caaqs/co/co.htm>

Very high levels of CO are not likely to occur outdoors. However, when CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease. These people already have a reduced ability for getting oxygenated blood to their hearts in situations where the heart needs more oxygen than usual. They are especially vulnerable to the effects of CO when exercising or under increased stress. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain also known as angina.⁹ Such acute effects may occur under current ambient conditions for some sensitive individuals, while increases in ambient CO levels increases the risk of such incidences.

Nitrogen Dioxide (NO₂) is a brownish, highly reactive gas that is present in all urban atmospheres. The main effect of increased NO₂ is the increased likelihood of respiratory problems. Under ambient conditions, NO₂ can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections. Nitrogen oxides are an important precursor both to ozone (O₃) and acid rain and may affect both terrestrial and aquatic ecosystems. Longer exposures to elevated concentrations of NO₂ may contribute to the development of asthma and potentially increase susceptibility to respiratory infections. People with asthma, as well as children and the elderly, are generally at greater risk for the health effects of NO₂.

Sulfur dioxide (SO₂) is one of the multiple gaseous oxidized sulfur species and is formed during the combustion of fuels containing sulfur, primarily coal and oil. The largest anthropogenic source of SO₂ emissions in the U.S. is fossil fuel combustion at electric utilities and other industrial facilities. SO₂ is also emitted from certain manufacturing processes and mobile sources, including locomotives, large ships, and construction equipment.

SO₂ affects breathing and may aggravate existing respiratory and cardiovascular disease in high doses. Sensitive populations include asthmatics, individuals with bronchitis or emphysema, children and the elderly. SO₂ is also a primary contributor to acid deposition, or acid rain, which causes acidification of lakes and streams and can damage trees, crops, historic buildings and statues. In addition, sulfur compounds in the air contribute to visibility impairment in large parts of the country. This is especially noticeable in national parks. Ambient SO₂ results largely from stationary sources such as coal and oil combustion, steel mills, refineries, pulp and paper mills and from nonferrous smelters.

Short-term exposure to ambient SO₂ has been associated with various adverse health effects. Multiple human clinical studies, epidemiological studies, and toxicological studies support a causal relationship between short-term exposure to ambient SO₂ and respiratory morbidity. The observed health effects include decreased lung function, respiratory symptoms, and increased emergency department visits and hospitalizations for all respiratory causes. These studies further suggest that people with asthma are potentially susceptible or vulnerable to these health effects. In addition, SO₂ reacts with other air pollutants to form sulfate particles, which are constituents of fine particulate matter (PM_{2.5}). Inhalation

⁹ California Air Resources Board (CARB). 2019. What is Carbon Monoxide? Available: <https://ww2.arb.ca.gov/resources/carbon-monoxide-and-health>.

exposure to PM_{2.5} has been associated with various cardiovascular and respiratory health effects.¹⁰ Increased ambient SO₂ levels would lead to increased risk of such effects.

SO₂ emissions that lead to high concentrations of SO₂ in the air generally also lead to the formation of other sulfur oxides (SO_x). SO_x can react with other compounds in the atmosphere to form small particles. These particles contribute to particulate matter (PM) pollution. Small particles may penetrate deeply into the lungs and in sufficient quantity can contribute to health problems.

Particulate matter (PM) includes dust, dirt, soot, smoke and liquid droplets directly emitted into the air by sources such as factories, power plants, cars, construction activity, fires and natural windblown dust. Particles formed in the atmosphere by condensation or the transformation of emitted gases such as SO₂ and VOCs are also considered particulate matter. PM is generally categorized based on the diameter of the particulate matter: PM₁₀ is particulate matter 10 micrometers or less in diameter (known as respirable particulate matter), and PM_{2.5} is particulate matter 2.5 micrometers or less in diameter (known as fine particulate matter).

Based on studies of human populations exposed to high concentrations of particles (sometimes in the presence of SO₂) and laboratory studies of animals and humans, there are major effects of concern for human health. These include effects on breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular disease, alterations in the body's defense systems against foreign materials, damage to lung tissue, carcinogenesis and premature death. Small particulate pollution causes health impacts even at very low concentrations – indeed, no threshold has been identified below which no damage to health is observed.

Respirable particulate matter (PM₁₀) consists of small particles, less than 10 microns in diameter, of dust, smoke, or droplets of liquid which penetrate the human respiratory system and cause irritation by themselves, or in combination with other gases. PM₁₀ is caused primarily by dust from grading and excavation activities, from agricultural activities (as created by soil preparation activities, fertilizer and pesticide spraying, weed burning and animal husbandry), and from motor vehicles, particularly diesel-powered vehicles. PM₁₀ causes a greater health risk than larger particles, since these fine particles can more easily penetrate the defenses of the human respiratory system.

PM_{2.5} consists of fine particles that are less than 2.5 microns in size. Similar to PM₁₀, these particles are primarily the result of combustion in motor vehicles, particularly diesel engines, as well as from industrial sources and residential/agricultural activities such as burning. It is also formed through the reaction of other pollutants. As with PM₁₀, these particulates can increase the chance of respiratory disease, and cause lung damage and cancer. In 1997, the U.S. EPA created new Federal air quality standards for PM_{2.5}.

The major subgroups of the population that appear to be most sensitive to the effects of particulate matter include individuals with chronic obstructive pulmonary or cardiovascular disease or influenza,

¹⁰ United States Environmental Protection Agency (USEPA). 2017. Sulfur Dioxide Concentrations – EPA. Available: https://cfpub.epa.gov/roe/indicator_pdf.cfm?i=91

asthmatics, the elderly and children. PM₁₀ and PM_{2.5} also impacts soils and damages materials and is a major cause of visibility impairment.

Numerous studies have linked PM exposure to premature death in people with preexisting heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms. Studies show that every 1 microgram per cubic meter reduction in PM_{2.5} results in a one percent reduction in mortality rate for individuals over 30 years old (Bay Area Air Quality Management District, 2017). Long-term exposures, such as those experienced by people living for many years in areas with high PM levels, have been associated with problems such as reduced lung function and the development of chronic bronchitis – and even premature death. Additionally, depending on its composition, both PM₁₀ and PM_{2.5} can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain.¹¹

Lead (Pb) exposure can occur through multiple pathways, including inhalation of air and ingestion of Pb in food, water, soil or dust. Once taken into the body, lead distributes throughout the body in the blood and is accumulated in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems and the cardiovascular system. Lead exposure also affects the oxygen carrying capacity of the blood. Excessive Pb exposure can cause seizures, mental retardation and/or behavioral disorders. Low doses of Pb can lead to central nervous system damage. Studies have also shown that Pb may be a factor in high blood pressure and subsequent heart disease.¹²

Lead is persistent in the environment and can be added to soils and sediments through deposition from sources of lead air pollution. Other sources of lead to ecosystems include direct discharge of waste streams to water bodies and mining. Elevated lead in the environment can result in decreased growth and reproductive rates in plants and animals, and neurological effects in vertebrates.

Lead exposure is typically associated with industrial sources; major sources of lead in the air are ore and metals processing and piston-engine aircraft operating on leaded aviation fuel. Other sources are waste incinerators, utilities, and lead-acid battery manufacturers. The highest air concentrations of lead are usually found near lead smelters. As a result of the U.S. EPA's regulatory efforts, including the removal of lead from motor vehicle gasoline, levels of lead in the air decreased by 98 percent between 1980 and 2014.¹³ Based on this reduction of lead in the air over this period, and since most new developments do not generate an increase in lead exposure, the health impacts of ambient lead levels are not typically monitored by the California Air Resources Board (CARB).

¹¹ United States Environmental Protection Agency (USEPA). 2019c. Health and Environmental Effects of Particulate Matter (PM). Available: <https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm>

¹² Tsoi, M.F., Lo, C.W.H., Cheung, T.T. et al. Blood lead level and risk of hypertension in the United States National Health and Nutrition Examination Survey 1999–2016. *Sci Rep* 11, 3010 (2021). Available at: <https://doi.org/10.1038/s41598-021-82435-6>

¹³ United States Environmental Protection Agency (USEPA). 2019d. Basic Information About Lead Pollution. Available: <https://www.epa.gov/lead-air-pollution/basic-information-about-lead-air-pollution#how>

ODORS

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another.

It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air.

When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

SENSITIVE RECEPTORS

A sensitive receptor is a location where human populations, especially children, seniors, and sick persons, are present and where there is a reasonable expectation of continuous human exposure to pollutants. Examples of sensitive receptors include residences, hospitals and schools. The proposed Project itself would include residences with sensitive receptors. Additionally, there are existing sensitive receptors located in the immediate vicinity of the proposed Project, surrounding the Project site to the east (along Pedrick Road), northwest (along Hess Lane, on the opposite side of I-80), south (north of Vaughn Road), and west (along Curry Road, on the opposite side of I-80).

AMBIENT AIR QUALITY STANDARDS

Both the U.S. EPA and the CARB have established ambient air quality standards for common pollutants. These ambient air quality standards represent safe levels of contaminants that avoid specific adverse health effects associated with each pollutant.

The federal and State ambient air quality standards are summarized in Table 3.3-1 for important pollutants. The federal and State ambient standards were developed independently, although both processes were aimed at avoiding health-related effects. As a result, the federal and State standards differ in some cases. In general, the California standards are more stringent. This is particularly true for ozone, PM_{2.5}, and PM₁₀. The U.S. EPA signed a final rule for the federal ozone eight-hour standard of 0.070 parts per million (ppm) on October 1, 2015, which was effective as of December 28, 2015 (equivalent to the California state ambient air quality eight-hour standard for ozone).

In 1997, new national standards for fine particulate matter diameter 2.5 microns or less (PM_{2.5}) were adopted for 24-hour and annual averaging periods. The existing PM₁₀ standards were retained, but the method and form for determining compliance with the standards were revised.

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated. The identification, regulation, and monitoring of TACs is relatively recent compared to that for criteria pollutants. Unlike criteria pollutants, TACs are regulated on the basis of risk rather than specification of safe levels of contamination.

TABLE 3.3-1: FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS¹⁴

POLLUTANT	AVERAGING TIME	FEDERAL PRIMARY STANDARD	STATE STANDARD
Ozone	1-Hour	--	0.09 ppm
	8-Hour	0.070 ppm	0.070 ppm
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.03 ppm
	1-Hour	0.100 ppm	0.18 ppm
Sulfur Dioxide	Annual	0.03 ppm	--
	24-Hour	0.14 ppm	0.04 ppm
	1-Hour	0.075 ppm	0.25 ppm
PM ₁₀	Annual	--	20 ug/m ³
	24-Hour	150 ug/m ³	50 ug/m ³
PM _{2.5}	Annual	12 ug/m ³	12 ug/m ³
	24-Hour	35 ug/m ³	--
Lead	30-Day Avg.	--	1.5 ug/m ³
	3-Month Avg.	0.15 ug/m ³	--

NOTES: PPM = PARTS PER MILLION, UG/M3 = MICROGRAMS PER CUBIC METER

SOURCE: CALIFORNIA AIR RESOURCES BOARD, 2023.

Existing air quality concerns within Solano County and the entire air basin are related to increases of regional criteria air pollutants (e.g., ozone and particulate matter), exposure to toxic air contaminants, odors, and increases in greenhouse gas emissions contributing to climate change. The primary source of ozone (smog) pollution is motor vehicles, which account for 70 percent of the ozone in the region. Particulate matter is caused by dust, primarily dust generated from construction and grading activities, and smoke emitted from fireplaces, wood-burning stoves, and agricultural burning.

¹⁴ Source: California Air Resources Board. 2023. Federal and State Ambient Air Quality Standards. Available: <https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards>

Attainment Status

In accordance with the California Clean Air Act (CCAA), the CARB is required to designate areas of the State as attainment, nonattainment, or unclassified with respect to applicable standards. An “attainment” designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A “nonattainment” designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria.

Depending on the frequency and severity of pollutants exceeding applicable standards, the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme nonattainment being the most severe of the classifications. An “unclassified” designation signifies that the data do not support either an attainment or nonattainment status. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The U.S. EPA designates areas for ozone, carbon monoxide, and nitrogen dioxide as “does not meet the primary standards,” “cannot be classified,” or “better than national standards.” For sulfur dioxide, areas are designated as “does not meet the primary standards,” “does not meet the secondary standards,” “cannot be classified,” or “better than national standards.” However, the CARB terminology of attainment, nonattainment, and unclassified is more frequently used.

Solano County has a State designation Attainment or Unclassified for all criteria pollutants except for ozone and PM₁₀. Solano County has a national designation of either Unclassified or Attainment for all criteria pollutants except for ozone. Table 3.3-2 presents the state and national attainment status for Solano County.

TABLE 3.3-2: STATE AND NATIONAL ATTAINMENT STATUS IN SOLANO COUNTY¹⁵

CRITERIA POLLUTANTS	STATE DESIGNATIONS	NATIONAL DESIGNATIONS
Ozone (O ₃)	Nonattainment-Transitional	Nonattainment
PM ₁₀	Nonattainment	Unclassified
PM _{2.5}	Unclassified	Nonattainment
Carbon Monoxide (CO)	Attainment	Unclassified/Attainment
Nitrogen Dioxide (NO ₂)	Attainment	Unclassified/Attainment
Sulfur Dioxide (SO ₂)	Attainment	Unclassified/Attainment
Sulfates	Attainment	
Lead	Attainment	Unclassified/Attainment
Hydrogen Sulfide	Unclassified	
Visibility Reducing Particles	Unclassified	

SOURCE: CALIFORNIA AIR RESOURCES BOARD, 2023.

¹⁵ Source: California Air Resources Board. 2023. Maps of State and Federal Area Designations. Available: <https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>

Solano County Air Quality Monitoring

The YSAQMD and the CARB maintain air quality monitoring sites throughout Solano County and neighboring counties that collect data for ozone and PM_{2.5}. In addition, air quality monitoring sites for PM₁₀ are located throughout the Sacramento Valley (including in Solano County and nearby Yolo County). The closest air quality monitoring station to the Project site is the Davis-UCD location. It is important to note that while the State retains the one-hour ozone standard, the federal ozone 1-hour standard was revoked by the U.S. EPA and is no longer applicable for federal standards. Best available data obtained from the monitoring sites between 2020 and 2022 (latest year of data available) is shown in Table 3.3-3, Table 3.3-4, and Table 3.3-5.

TABLE 3.3-3 AMBIENT AIR QUALITY MONITORING DATA SUMMARY (DAVIS-UCD CAMPUS)* - OZONE

YEAR	DAYS > STANDARD				1-HOUR OBSERVATIONS			8-HOUR AVERAGES				YEAR COVERAGE	
	STATE		NATIONAL		MAX.	STATE	NAT'L	STATE		NATIONAL			
	1-HR	8-HR	1-HR	8-HR		D.V. ¹	D.V. ²	MAX.	D.V. ¹	MAX.	D.V. ²	MIN	MAX
2022	0	1	0	1	0.078	0.08	0.085	0.071	0.072	0.071	0.063	85	86
2021	0	3	0	2	0.088	0.08	0.085	0.081	0.072	0.081	0.065	98	98
2020	0	0	0	0	0.090	0.08	0.088	0.068	0.068	0.068	0.063	99	100

NOTES: ALL CONCENTRATIONS EXPRESSED IN PARTS PER MILLION. THE NATIONAL 1-HOUR OZONE STANDARD WAS REVOKED IN JUNE 2005 AND IS NO LONGER IN EFFECT. STATISTICS RELATED TO THE REVOKED STANDARD ARE SHOWN IN ITALICS. D.V.¹ = STATE DESIGNATION VALUE. D.V.² = NATIONAL DESIGN VALUE.

*DAVIS-UCD CAMPUS REPRESENTS THE CLOSEST MONITORING STATION TO THE PROJECT SITE.

SOURCE: CALIFORNIA AIR RESOURCES BOARD (AEROMETRIC DATA ANALYSIS AND MANAGEMENT SYSTEM OR IADAM) AIR POLLUTION SUMMARIES.

TABLE 3.3-4: AMBIENT AIR QUALITY MONITORING DATA SUMMARY (VACAVILLE-MERCHANT STREET)* – PM₁₀

YEAR	EST. DAYS > STD.		ANNUAL AVERAGE		HIGH 24-HR AVERAGE		YEAR COVERAGE
	NAT'L	STATE	NAT'L	STATE	NAT'L	STATE	
2022	0	0	1139	12.3	33.4	35.4	100
2021	0	ND	14.6	ND	50.0	49.6	99
2020	ND	ND	36.7	ND	326.8	319.2	62

NOTES: THE NATIONAL ANNUAL AVERAGE PM₁₀ STANDARD WAS REVOKED IN DECEMBER 2006 AND IS NO LONGER IN EFFECT. AN EXCEEDANCE IS NOT NECESSARILY A VIOLATION. STATISTICS MAY INCLUDE DATA THAT ARE RELATED TO AN EXCEPTIONAL EVENT. STATE AND NATIONAL STATISTICS MAY DIFFER FOR THE FOLLOWING REASONS: STATE STATISTICS ARE BASED ON CALIFORNIA APPROVED SAMPLERS, WHEREAS NATIONAL STATISTICS ARE BASED ON SAMPLERS USING FEDERAL REFERENCE OR EQUIVALENT METHODS. STATE AND NATIONAL STATISTICS MAY THEREFORE BE BASED ON DIFFERENT SAMPLERS. NATIONAL STATISTICS ARE BASED ON STANDARD CONDITIONS. STATE CRITERIA FOR ENSURING THAT DATA ARE SUFFICIENTLY COMPLETE FOR CALCULATING VALID ANNUAL AVERAGES ARE MORE STRINGENT THAN THE NATIONAL CRITERIA. *DAVIS-UCD CAMPUS DOES NOT MAINTAIN PM₁₀ DATA. THEREFORE, THE NEXT CLOSEST MONITORING TO THE PROJECT SITE IS THE VACAVILLE-MERCHANT STREET LOCATION.

SOURCE: CALIFORNIA AIR RESOURCES BOARD (AEROMETRIC DATA ANALYSIS AND MANAGEMENT SYSTEM OR IADAM) AIR POLLUTION SUMMARIES.

TABLE 3.3-5 AMBIENT AIR QUALITY MONITORING DATA SUMMARY (DAVIS-UCD CAMPUS)* - PM_{2.5}

YEAR	EST. DAYS > NAT'L '06 STD.	ANNUAL AVERAGE		NAT'L ANN. STD. D.V. ¹	STATE ANNUAL D.V. ²	NAT'L '06 STD. 98TH PERCENTILE	NAT'L '06 24-HR STD. D.V. ¹	HIGH 24-HOUR AVERAGE		YEAR COVERAGE	
		NAT'L	STATE					NAT'L	STATE	MIN	MAX
2022	ND	ND	ND	ND	13	ND	ND	ND	31.3	ND	ND
2021	ND	ND	7.8	ND	13	ND	ND	ND	66.2	ND	ND
2020	ND	ND	13.0	ND	13	ND	ND	ND	132.3	ND	ND

NOTES: ALL CONCENTRATIONS EXPRESSED IN PARTS PER MILLION. STATE AND NATIONAL STATISTICS MAY DIFFER FOR THE FOLLOWING REASONS: STATE STATISTICS ARE BASED ON CALIFORNIA APPROVED SAMPLERS, WHEREAS NATIONAL STATISTICS ARE BASED ON SAMPLERS USING FEDERAL REFERENCE OR EQUIVALENT METHODS. STATE AND NATIONAL STATISTICS MAY THEREFORE BE BASED ON DIFFERENT SAMPLERS. STATE CRITERIA FOR ENSURING THAT DATA ARE SUFFICIENTLY COMPLETE FOR CALCULATING VALID ANNUAL AVERAGES ARE MORE STRINGENT THAN THE NATIONAL CRITERIA. D.V.¹ = STATE DESIGNATION VALUE. D.V.² = NATIONAL DESIGN VALUE. ND = NO DATA. *DAVIS-UCD CAMPUS REPRESENTS THE CLOSEST MONITORING STATION TO THE PROJECT SITE. SOURCE: CALIFORNIA AIR RESOURCES BOARD (AEROMETRIC DATA ANALYSIS AND MANAGEMENT SYSTEM OR IADAM) AIR POLLUTION SUMMARIES.

3.3.2 REGULATORY SETTING

FEDERAL

Clean Air Act

The FCAA was first signed into law in 1970. In 1977, and again in 1990, the law was substantially amended. The FCAA is the foundation for a national air pollution control effort, and it is composed of the following basic elements: NAAQS for criteria air pollutants, hazardous air pollutant standards, state attainment plans, motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

The U.S. EPA is responsible for administering the FCAA. The FCAA requires the U.S. EPA to set NAAQS for several air pollutants based on human health and welfare criteria. Two types of NAAQS were established: primary standards, which protect public health (with an adequate margin of safety, including for sensitive populations such as children, the elderly, and individuals suffering from respiratory diseases), and secondary standards, which protect the public welfare from non-health-related adverse effects such as visibility reduction.

NAAQS standards define clean air and represent the maximum amount of pollution that can be present in outdoor air without any harmful effects on people and the environment. Existing violations of the ozone and PM_{2.5} ambient air quality standards indicate that certain individuals exposed to these pollutants may experience certain health effects, including increased incidence of cardiovascular and respiratory ailments.

Although there is some variability among the health effects of the NAAQS pollutants, each has been linked to multiple adverse health effects including, among others, premature death, hospitalizations and emergency department visits for exacerbated chronic disease, and increased symptoms such as coughing and wheezing.

Federal Hazards Air Pollutants Program

The 1977 CAA Amendments required the USEPA to identify National Emissions Standards for Hazardous Air Pollutants (NESHAPs) to protect the public health and welfare. Hazardous air pollutants include certain VOCs, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 CAA Amendments, which expanded the control program for hazardous air pollutants, 189 substances and chemical families were identified as hazardous air pollutants.

Federal Heavy-duty Engines and Vehicles Fuel Efficiency Standards

In 2010, President Obama issued a memorandum directing federal agencies to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the USEPA and National Highway Traffic Safety Administration (NHTSA) proposed stringent, coordinated federal GHG and fuel economy standards for model year 2017–2025 light-duty vehicles.

STATE

California Clean Air Act

The California Legislature enacted the California Clean Air Act (CCAA) in 1988 to address air quality issues of concern not adequately addressed by the federal CAA at the time. California's air quality problems were and continue to be some of the most severe in the nation and required additional actions beyond the federal mandates. The CARB administers California Ambient Air Quality Standards (CAAQS) for the 10 air pollutants designated in the CCAA. The 10 State air pollutants are the six pollutants subject to federal standards listed above as well as visibility reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride. The U.S. EPA authorized California to adopt its own regulations for motor vehicles and other sources that are more stringent than similar federal regulations implementing the CAA. Generally, the planning requirements of the federal CAA are less stringent than the CCAA; therefore, consistency with the CCAA will also demonstrate consistency with the federal CAA.

CARB Mobile-Source Regulation

The State of California is responsible for controlling emissions from the operation of motor vehicles in the State. Rather than mandating the use of specific technology or the reliance on a specific fuel, the CARB motor vehicle standards specify the allowable grams of pollution per mile driven. In other words, the regulations focus on the reductions needed rather than on the manner in which they are achieved. Towards this end, the CARB has adopted regulations that require auto manufacturers to phase in less-polluting vehicles.

California Air Quality Standards

Although NAAQS are determined by the U.S. EPA, states have the ability to set standards that are more stringent than the federal standards. As such, California established more stringent ambient air quality standards (i.e. CAAQS), which include the NAAQS as well as visibility reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride. However, both federal and state ambient air quality standards have

been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulates and lead. In addition, California has created standards for pollutants that are not covered by federal standards. Although there is some variability among the health effects of the CAAQS pollutants, each has been linked to multiple adverse health effects including, among others, premature death, hospitalizations and emergency department visits for exacerbated chronic disease, and increased symptoms such as coughing and wheezing. The existing state and federal primary standards for major pollutants are shown in Table 3.3-1.

Tanner Air Toxics Act (TACs)

California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and has adopted U.S. EPA's list of Hazardous Air Pollutants (HAPs) as TACs. Most recently, diesel PM was added to the CARB list of TACs. Once a TAC is identified, CARB then adopts an Airborne Toxics Control Measure (ATCM) for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate Best Available Control Technologies (BACT) to minimize emissions.

Toxic Air Contaminants Health Effects

A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. The California Almanac of Emissions and Air Quality presents the relevant concentration and cancer risk data for the 10 TACs that pose the most substantial health risk in California based on available data. The 10 TACs are acetaldehyde, benzene, 1,3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (DPM).

Some studies indicate that DPM poses the greatest health risk among the TACs listed above. A 10-year research program demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk. In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust is a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

DPM differs from other TACs in that it is not a single substance, but a complex mixture of hundreds of substances. Although DPM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies, depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike the other TACs, however, no ambient

monitoring data are available for DPM because no routine measurement method currently exists. The CARB has made preliminary concentration estimates based on a DPM exposure method. This method uses the CARB emissions inventory's PM₁₀ database, ambient PM₁₀ monitoring data, and the results from several studies to estimate concentrations of DPM.

Transportation Control Measures

The State Implementation Plan (SIP) describes the infrastructure (authorities, resources, and programs) California has in place to implement, maintain, and enforce the NAAQS. One particular aspect of the development process is the consideration of potential control measures as a part of making progress towards clean air goals. While most SIP control measures are aimed at reducing emissions from stationary sources, some are typically also created to address mobile or transportation sources. These are known as transportation control measures (TCMs). TCM strategies are designed to reduce vehicle miles traveled and trips, or vehicle idling and associated air pollution. These goals are achieved by developing attractive and convenient alternatives to single-occupant vehicle use. Examples of TCMs include ridesharing programs, transportation infrastructure improvements such as adding bicycle and carpool lanes, and expansion of public transit.

Omnibus Low-NOx Rule

CARB approved the Omnibus Low-NOx Rule on August 28, 2020, which will require engine NOx emissions to be cut to approximately 75% below current standards beginning in 2024, and 90% below current standards in 2027. The rule also places nine additional regulatory requirements on new heavy-duty trucks and engines. Those additional requirements include a 50% reduction in particulate matter emissions, stringent new low-load and idle standards, a new in-use testing protocol, extended deterioration requirements, a new California-only credit program, and extended mandatory warranty requirements. The regulatory requirements in the Omnibus Low-NOx Rule will first become effective in 2024, at the same time as the Advanced Clean Trucks regulations that CARB approved that require manufacturers to convert increasing percentages of their heavy-duty trucks sold in California to zero-emission vehicles.

Low Emission Vehicle Program

The CARB first adopted Low Emission Vehicle (LEV) program standards in 1990. These first LEV standards ran from 1994 through 2003. LEV II regulations, running from 2004 through 2010, represent continuing progress in emission reductions. As the State's passenger vehicle fleet continues to grow and more sport utility vehicles and pickup trucks are used as passenger cars rather than work vehicles, the more stringent LEV II standards were adopted to provide reductions necessary for California to meet federally mandated clean air goals outlined in the 1994 State Implementation Plan (SIP). In 2012, the CARB adopted the LEV III amendments to California's LEV regulations. These amendments, also known as the Advanced Clean Car Program, include more stringent emission standards for model years 2017 through 2025 for both criteria pollutants and greenhouse gas (GHG) emissions for new passenger vehicles.

On September 23, 2020, Governor Gavin Newsom issued Executive Order N-79-20 establishing a goal that 100 percent of new passenger cars and trucks sold in California shall be zero-emission by 2035. The Executive Order also sets a goal that, where feasible, all operations include zero-emission medium- and

heavy-duty trucks by 2045, and drayage trucks by 2035. Off-road vehicles have a goal to transition to 100 percent zero-emission vehicles by 2035, where feasible.

On-Road Heavy-Duty Vehicle Program

The CARB has adopted standards for emissions from various types of new on-road heavy-duty vehicles. Section 1956.8, Title 13, California Code of Regulations contains California's emission standards for on-road heavy-duty engines and vehicles, and test procedures. The CARB has also adopted programs to reduce emissions from in-use heavy-duty vehicles including the Heavy-Duty Diesel Vehicle Idling Reduction Program, the Heavy-Duty Diesel In-Use Compliance Program, the Public Bus Fleet Rule and Engine Standards, and the School Bus Program and others. Further, the CARB has also adopted the Advanced Clean Trucks Regulation and the Advanced Clean Fleets Regulation. The Advanced Clean Trucks Regulation is a manufacturers ZEV sales requirement and a one-time reporting requirement for large entities and fleets. Similarly, the Advanced Clean Fleets Regulation will help advance the introduction of zero-emission technologies into California's truck and bus fleets, requiring fleets that are well suited for electrification to transition to zero-emission vehicles (ZEV) through requirements to phase in the use of ZEVs for targeted fleets and requirements that manufacturers only manufacture ZEV trucks starting in the 2036 model year.

California Air Resources Board Regulation for In-Use Off-Road Diesel Vehicles

On July 26, 2007, the CARB adopted a regulation to reduce DPM and NOx emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. The regulation limits idling to no more than five consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale. The CARB is enforcing that part of the rule with fines up to \$10,000 per day for each vehicle in violation. Performance requirements of the rule are based on a fleet's average NOx emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The California Air Resources Board (CARB) approved amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation (Off-Road Regulation) on November 17, 2022, aimed at further reducing emissions from the off-road sector.

The regulation applies to nearly all privately and federally owned diesel-fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds. The regulation provides a variety of flexibility options tailored to fleets operating low use vehicles, fleets operating in selected vocations like agricultural and construction, and small fleets of three or fewer trucks.¹⁶

Diesel Risk Reduction Plan

- The CARB's Diesel Risk Reduction Plan has led to the adoption of new State regulatory standards for all new on-road, off-road, and stationary diesel-fueled engines and vehicles to reduce DPM emissions by about 90 percent overall from year 2000 levels. The Projected emission benefits

¹⁶ California Air Resources Board (CARB). 2021. Truck and Bus Regulation. Website: <http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>. Accessed February 16, 2021.

associated with the full implementation of this plan, including federal measures, are reductions in DPM emissions and associated cancer risks of 75 percent by 2010, and 85 percent by 2020.¹⁷

LOCAL

Yolo Solano Air Pollution Control District

The Yolo-Solano Air Quality Management District (YSAQMD) is the air district with jurisdiction over the Project site. YSAQMD's mission is to protect human health and property from the harmful effects of air pollution. The District was established in 1971 by a joint powers agreement between the Yolo and Solano County Boards of Supervisors. The District is governed by a 14-member Board of Directors composed of local elected representatives. The District has jurisdiction over all of Yolo County and the northeast portion of Solano County, including Vacaville, Dixon and Rio Vista. The District includes approximately 1,500 square miles and a population of approximately 354,000 people. To assist lead agencies and project applicants as they prepare air quality analyses, the District produced the *Handbook for Assessing and Mitigating Air Quality Impacts* (2007).

Dixon General Plan

The Dixon General Plan contains the following goals and policies that are relevant to air quality:

NATURAL ENVIRONMENT

GOAL NE-2. Use energy and water wisely and promote reduced consumption.

Policy NE-2.1 Promote energy conservation throughout the community and encourage the use of renewable energy systems to supplement or replace traditional building energy systems.

Policy NE-2.3 Participate in regional energy efficiency financing programs such as low-interest revolving loan funds, the California Comprehensive Residential Building Retrofit Program, California First, and the Property Assessed Clean Energy (PACE) program that enable property owners to obtain low-interest financing for energy improvements.

Policy NE-2.7 Conserve water through the provision of water-efficient infrastructure, drought tolerant plantings, and greywater usage to support public parks and landscaped areas.

GOAL NE-5. Minimize air, soil, noise, and water pollution as well as community exposure to hazardous conditions.

Policy NE-5.1 Coordinate with the Yolo-Solano Air Quality Management District and other local, regional, and State agencies to protect and enhance air quality in Dixon.

¹⁷ California Air Resources Board (CARB). 2021. Diesel Risk Reduction Plan. Website: <https://ww2.arb.ca.gov/our-work/programs/diesel-risk-reduction-plan>. Accessed February 16, 2021.

Policy NE-5.2 Continue to use the Yolo-Solano Air Quality Management District’s Handbook for Assessing and Mitigating Air Quality Impacts for environmental review of proposed development projects.

Policy NE-5.3 Require dust abatement actions for all new construction and redevelopment projects, consistent with the Yolo-Solano Air Quality Management District’s Best Available Control Measures.

Policy NE-5.4 Ensure adequate buffer distances are provided between offensive odor sources and sensitive receptors, such as schools, hospitals, and community centers.

Policy NE-5.5 Encourage development to minimize grading related to the topography and natural features in order to limit soil erosion.

Policy NE-5.6 Require construction projects that disturb 10,000 square feet of ground cover revegetate graded areas with native or locally appropriate vegetation to restore biological diversity and minimize erosion and soil instability

Policy NE-5.11 Reduce, through redevelopment and retrofitting, the amount of uncovered industrial and commercial areas where the work activity may contribute pollutants.

MOBILITY ENVIRONMENT

GOAL M-1. Plan, design, construct, and maintain a transportation network that provides safe and efficient access throughout the city and optimizes travel by all modes.

Policy M-1.1 Maintain a transportation network that is efficient and safe, that removes barriers (e.g. accessibility near freeways and rail lines), and that optimizes travel by all modes.

Policy M-1.3 Design, construct, operate, and maintain city streets based on a “complete streets” concept that enables safe, comfortable, and attractive access and travel for pedestrians, bicyclists, motorists, and transit users of all ages and abilities.

Policy M-1.5 Increase accessibility for and use of streets by pedestrians, bicyclists, and transit riders through appropriate roadway modifications and improvements.

Policy M-1.6 Ensure that improvements to the transportation network support a land use pattern that connects the community, integrates neighborhoods, provides multi-modal access and facilitates travel among Dixon’s neighborhoods.

GOAL M-2. Manage the city's transportation system to minimize congestion, improve flow and improve air quality.

Policy M-1.2 Ensure that the street network functions for the automobile, yet is easily accessible, safe, and convenient for other modes of travel and for users of all ages, abilities, and income levels.

Policy M-2.2 Prioritize pedestrian, bicycle, and automobile safety over traffic flow.

Policy M-2.3 Maintain a minimum level of service of "D" citywide for planning purposes.

Policy M-2.8 Require traffic studies for new development to include analysis of intersections, roadway segments, and alternative modes of transportation and facilities that may be affected by development proposals.

Policy M-2.9 Recognize uncongested access to the freeway from employment areas in the north of the city as a competitive advantage for Dixon and prioritize improvements accordingly.

GOAL M-3. Facilitate convenient and safe pedestrian, bicycle, transit, and vehicular connections between neighborhoods and to destinations in Dixon and neighboring communities.

Policy M-3.1 Enhance pedestrian, bicycle and transit connections to, from and between parks, community centers, neighborhoods, recreation facilities, libraries, schools, commercial centers and other community destinations in Dixon for all users.

Policy M-3.2 Ensure that new development provides physical connections to surrounding neighborhoods.

Policy M-3.3 Foster an integrated multi-use trail system that provides universally accessible, safe, pleasant and convenient links within the city and to destinations beyond.

Policy M-3.4 Expand the regional bicycle and pedestrian trail network, in collaboration with the Solano Transportation Authority, surrounding communities, and other partners.

Policy M-3.5 Increase regional transit ridership to and from Dixon and expand shuttle service to Amtrak.

Policy M-3.6 Participate in and contribute to regional programs to improve commute alternatives and efficiency.

Policy M-3.7 Prioritize the transit needs of senior, disabled, minority, low-income, and transit-dependent persons in making decisions regarding transit services and in compliance with the Americans with Disabilities Act.

Policy M-3.8 Encourage provision of a variety of transportation services for seniors and community members with limited mobility

Policy M-3.9 Increase safety at train crossings with improved gate technology and signal coordination, in partnership with Solano Transportation Authority, Union Pacific Rail Road, and Amtrak.

GOAL M-4. Facilitate travel within the city and to surrounding communities by alternatives to the

Policy M-4.1 Promote cycling and walking as healthy, affordable and viable transportation options in Dixon for all residents through education, incentives, citywide events such as Sunday Streets events, and programs such as Safe Routes to School and Safe Routes for Seniors programs.

Policy M-4.2 Promote roadway safety for all road users through education and awareness programs and campaigns

Policy M-4.3 3 Increase bicycle ridership for work, errands and leisure trips.

Policy M-4.4 Regularly maintain bicycle and pedestrian paths and trails, including sweeping, weed abatement and surface maintenance

Policy M-4.5 Encourage pedestrian-friendly design features in new development such as sidewalks, street trees, on-street parking, gathering spaces, gardens, outdoor furniture, art and interesting architectural details.

Policy M-4.6 Enhance the existing bicycle/pedestrian network by adding planting pockets with street trees to provide shade, calm traffic and enhance the pedestrian realm, prioritizing routes that link destinations such as employment centers, commercial centers, schools and downtown Dixon.

Policy M-4.7 Continue to implement traffic calming measures to slow traffic on local and collector residential streets, and contribute to the safety of non-motorized road users.

Policy M-4.8 Require new or redesigned parking lots to optimize pedestrian and bicycle safety and provide green infrastructure for aesthetic and stormwater management purposes.

GOAL M-6. Provide for safe, efficient goods movement by road and rail.

Policy M-6.1 Maintain designated truck routes within Dixon and regulate truck traffic to allow for both economic development and a high quality of life in residential neighborhoods.

Policy M-6.2 Continue to coordinate with State and regional agencies on the planning and implementation of the regional transportation system.

Policy M-6.3 Pursue opportunities to leverage Dixon's rail infrastructure to provide enhanced cargo service, including new track connections and configurations to support rail served businesses.

Policy M-6.4 Improve safety and minimize adverse noise, vibrations and visual impacts of operations in the Amtrak rail corridor and truck routes on adjacent public facilities, schools and neighborhoods.

Policy M-6.5 Coordinate proactively with rail operators to minimize negative impacts and maximize benefits to Dixon from any future rail service that runs through Dixon.

Policy M-6.6 Support improvements to regional goods movement facilities, such as truck scales, that facilitate local economic development.

3.3.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines and the YSQAMD’s *Handbook for Assessing and Mitigating Air Quality Impacts* (2007), the proposed Project will have a significant impact on the environment associated with air quality if it will:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Cause a violation of any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations;
- Create objectionable odors affecting a substantial number of people.

Impacts related to greenhouse gases and climate change are addressed in Section 3.8.

The YSAQMD’s *Handbook for Assessing and Mitigating Air Quality Impacts* (2007) provides project-level thresholds of significance for: particulate matter less than 10 micrometers in diameter (PM₁₀), carbon monoxide (CO), and the precursors to ozone, which are reactive organic gases (ROG) and nitrogen oxides (NO_x). The thresholds apply to both construction and operational impacts.

TABLE 3.3-6: THRESHOLDS OF SIGNIFICANCE FOR CRITERIA POLLUTANTS OF CONCERN

POLLUTANT	THRESHOLDS OF SIGNIFICANCE
ROG	10 tons/year
NO _x	10 tons/year
PM ₁₀	80 lbs/day
CO	Violation of a state ambient air quality standard for CO

SOURCE: YOLO-SOLANO AIR QUALITY MANAGEMENT DISTRICT’S HANDBOOK FOR ASSESSING AND MITIGATING AIR QUALITY IMPACTS (2007)

METHODOLOGY

Operational Emissions

There are three types of emission sources: area sources, mobile sources, and stationary sources. These collectively make up the Project’s operational emissions. The methodology used in this analysis to address each source is presented below.

AREA SOURCES

The term area source emissions refer to equipment or devices operating within a Project that individually emit small quantities of air pollutants, but when considered collectively, represent large quantities of emissions. Examples include electricity and natural gas consumption, water and space heaters, fireplaces,

wood burning heaters, lawn maintenance equipment, and application of paints and lacquers. The California Emission Estimator Model (CalEEMod)TM (v.2022.1.1.21) was used to estimate area source emissions.

The land use inputs for CalEEMod were derived from the Project description, which includes information provided by the City of Dixon and the Project applicant. The CalEEMod land use inputs include:

- Residential:
 - Single Family Housing (538 dwelling units)
 - Condo/Townhouse (278 dwelling units)
 - Apartments Low Rise (225 dwelling units)
- Industrial:
 - Refrigerated Warehouse (660,000 square feet)
- Retail:
 - Strip Mall (108,465 square feet)
- Recreational:
 - City Park (8.42 acres)
- Parking:
 - Asphalt Surfaces (51.56 acres)

MOBILE SOURCES

The term mobile source emissions refer to vehicle emissions generated by a project. Mobile source emissions are dependent on a large number of variables including trip length, average speed, trip generation rates, vehicle fleet mix, starting conditions, temperature, year, and other factors.

CalEEMod was used to estimate mobile source emissions. The traffic inputs were derived from the traffic analysis. The traffic inputs include trip generation rates as included within the Traffic Study provided by Flecker Associates (2023)¹⁸.

STATIONARY SOURCES

The term stationary source emissions refer to equipment or devices operating at industrial and commercial facilities. Examples of facilities with stationary sources include manufacturing plants, quarries, print shops and gasoline stations. The proposed Project does not propose stationary source emitters; therefore, this air quality analysis does not include stationary source emission estimates.

Construction Emissions

Construction activities can generate a substantial amount of air pollution. In some cases, the emissions from construction represent the largest air quality impact associated with a project. While construction-related emissions are considered temporary, these short-term impacts can contribute to the pollution load recorded at monitoring stations. Emissions from construction are assessed in this document to determine whether the thresholds of significance established by the YSAQMD would be exceeded.

¹⁸ *Traffic Impact Analysis for the Campus 257 NEQSP*, 2023, Flecker Associates, December 6 2023.

Construction activities would include: site preparation, grading, building construction, paving, and architectural coatings. The emissions generated from these common construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips.

CalEEMod was used to estimate the construction emissions from construction activities. Based on construction phasing and schedule, the CalEEMod defaults for construction equipment were utilized.

The construction phase details are provided in Table 3.3-7, below. See Appendix B of this Draft EIR for further detail.

TABLE 3.3-7: ANTICIPATED CONSTRUCTION SCHEDULE

CALEEMOD PHASE	CALEEMOD PHASE START DATE	CALEEMOD PHASE END DATE
Demolition	February 1, 2025	March 1, 2025
Grading (Phase 1)	February 1, 2025	April 1, 2025
Grading (Phase 2)	February 1, 2026	March 1, 2026
Grading (Phase 3)	February 1, 2027	March 1, 2027
Building Construction (Phase 1)	February 1, 2025	December 1, 2025
Building Construction (Phase 2)	February 1, 2026	August 1, 2026
Building Construction (Phase 3)	February 1, 2027	August 1, 2027
Paving	October 1, 2025	February 1, 2026
Architectural Coatings (Phase 1)	February 1, 2025	December 1, 2025
Architectural Coatings (Phase 2)	February 1, 2026	February 1, 2026
Architectural Coatings (Phase 3)	February 1, 2027	August 1, 2027

IMPACTS AND MITIGATION MEASURES

Impact 3.3-1: Project operations would cause a violation of an air quality standard or contribute substantially to an existing or projected air quality violation (Significant and Unavoidable)

The proposed Project would be a direct and indirect source of air pollution, in that it would generate and attract vehicle trips in the region (mobile source emissions), require the use of grid energy (natural gas and electricity), and generate area source emissions. The mobile source emissions would be entirely from vehicles, while the area source emissions would be primarily from landscape fuel combustion, consumer products, and architectural coatings.

CalEEMod was used to estimate operational emissions for the proposed Project, without any mitigation measures incorporated. Table 3.3-8 shows the operational emissions, which includes both mobile and area source emissions of criteria pollutants that would result from the proposed Project. Detailed CalEEMod emissions calculations are presented in Appendix B.

TABLE 3.3-8: PROJECT OPERATIONAL EMISSIONS (UNMITIGATED SCENARIO)

EMISSIONS ^(A)	ROG (TONS/YEAR)	NOX (TONS/YEAR)	PM ₁₀ (LBS/DAY) ^(B)	CO (TONS/YEAR)
Area	11.0	0.08	0.01	8.33
Energy	0.08	1.38	0.11	0.67
Mobile	14.5	11.4	934	78.8
Total	25.7	12.8	934	87.8
Threshold	10	10	80	Violation of State Ambient Air Quality Standard for CO
Above Threshold?	Yes	Yes	Yes	No - See Impact 3.3-3

NOTE: ^(A) NUMBERS PROVIDED HERE MAY NOT ADD UP EXACTLY TO TOTAL DUE TO ROUNDING. ^(B) MAXIMUM VALUE.

SOURCE: CALFEEMOD (2022.1.1.21)

The YSAQMD has established an operational emissions threshold of significance for ozone precursors of 10 tons per year for ROG and NO_x, and 80 pounds per day for PM₁₀. The YSAQMD utilizes a screening process and separate model for CO impacts. As shown in the table above, Project generated emissions would be above the YSAQMD 10 tons per year threshold for ROG and the 80 pounds per day threshold for PM₁₀. Therefore, the Project could result in a **potentially significant** impact.

However, the proposed Project would include the following Project sustainability components (written as provided by CalFEEMod) that would reduce Project operational emissions compared to the unmitigated scenario as provided in Table 3.3-8.

- Install low-flow appliances (bathroom faucet, kitchen faucet, toilet, and shower) for all residences, consistent with the latest version of California’s Title 24 Energy Efficiency Standards; and
- Install on-site renewable energy systems for single-family residential properties, consistent with the latest version of California’s Title 24 Energy Efficiency Standards.

Because proposed Project operations would exceed YSAQMD’s thresholds, the impact is **potentially significant**.

MITIGATION MEASURE(S)

Mitigation Measure 3.3-1(a): Prior to the issuance of each building permit, the Project applicant shall ensure that the Project buildings are designed to exceed the Title 24 Building Envelope Energy Efficiency Standards by 1% or greater.

Mitigation Measure 3.3-1(b): During Project operation, operators of heavy-duty trucks that travel to and from the Project site are required to use trucks that have 2010 model year or newer engines that meet the CARB’s 2010 engine emission standards of 0.01 g/bhp-hr for particulate matter (PM) and 0.20 g/bhp-hr of NO_x emissions, or newer, cleaner trucks and equipment.

SIGNIFICANCE AFTER MITIGATION

Significant and Unavoidable

As described under Mitigation Measure 3.3-1(a), the proposed Project is required to exceed Title 24 Building Envelope Energy Efficiency Standards by 1%. Furthermore, the proposed Project would also be required to implement Mitigation Measure 3.3-1(b), which would require the operators of heavy-duty trucks that travel to and from the Project site during Project operation to use trucks that have 2010 model year or newer engines that meet the CARB’s 2010 engine emission standards of 0.01 g/bhp-hr for particulate matter (PM) and 0.20 g/bhp-hr of NOx emissions, or newer, cleaner trucks and equipment. However, due to the difficulty in modeling the emissions (i.e., NOx emissions) reductions that would occur due to implementation of Mitigation Measure 3.3-1(b), the emissions reductions associated with Mitigation Measure 3.3-1(b) were not modeled. Thus, **Table 3.3-9** provides a conservative estimate of the operational emissions results for the proposed Project, with the quantified Project sustainability components and mitigation measures accounted for, where possible.

As shown in Table 3.3-9, below, incorporation of these quantified Project sustainability components and mitigation measures (listed above) would only negligibly reduce Project emissions, as calculated using CalEEMod (v.2020.1.1.21). This is primarily due to the fact that the Project’s criteria pollutant emissions primarily derive from mobile emissions. However, it is anticipated that mobile emissions would be reduced further than as shown in Table 3.3-9, based on implementation of Mitigation Measure 3.3-1(b).

TABLE 3.3-9: PROJECT OPERATIONAL EMISSIONS (MITIGATED SCENARIO)

EMISSIONS CATEGORY ^(A)	ROG (TONS/YEAR)	NOX (TONS/YEAR)	PM ₁₀ (LBS/DAY) ^(B)	CO (TONS/YEAR)
Area	11.0	0.08	0.01	8.33
Energy	0.08	1.37	0.11	0.67
Mobile	14.5	11.4	934	78.8
Total^(B)	25.7	12.8	934	87.8
Threshold	10	10	80	Violation of State Ambient Air Quality Standard for CO
Above Threshold?	Yes	Yes	Yes	No - See Impact 3.3-3

NOTE: ^(A) NUMBERS PROVIDED HERE MAY NOT ADD UP EXACTLY TO TOTAL DUE TO ROUNDING. ^(B) MAXIMUM VALUE.

SOURCE: CAL EEMOD (2022.1.1.21)

Even with implementation of feasible mitigation (i.e., Mitigation Measure 3.3-1(a) and 3.3-1(b)), the Project operational emissions would exceed the YSAQMD threshold of significance for ROG. This is primarily due to the number of mobile vehicle trips generated by the proposed Project. Therefore, the proposed Project would be required to implement Mitigation Measure 3.3-1(a) and Mitigation Measure 3.3-1(b). No further operation-related mitigation is feasible.

Implementation of Mitigation Measure 3.3-1(a) and Mitigation Measure 3.3-1(b) would reduce proposed Project operation-related criteria pollutant emissions. However, even after these mitigation measures are applied, proposed Project PM₁₀ emissions would be above the applicable YSAQMD thresholds. Therefore, there is a **significant and unavoidable** impact relative to this topic.

Impact 3.3-2: Project construction would cause a violation of an air quality standard or contribute substantially to an existing or projected air quality violation (Significant and Unavoidable)

Construction activities associated with construction and implementation of the proposed Project would result in temporary short-term emissions associated with vehicle trips from construction workers, operation of construction equipment, and the dust generated during construction activities. These temporary and short-term emissions would generate additional ozone precursors (ROG and NO_x) as well as PM₁₀, which could exacerbate the County’s existing non-attainment status for these criteria pollutants. It should be noted that construction vehicle emissions requirements in California have become stricter over time. Below is an estimated construction schedule for the proposed Project, as provided by the Project applicant:

- Demolition (February 1, 2025 – March 1, 2025)
- Grading (Phase 1) (February 1, 2025 – April 1, 2025)
- Grading (Phase 2) (February 1, 2026 – March 1, 2026)
- Grading (Phase 3) (February 1, 2027 – March 1, 2027)
- Building Construction (Phase 1) (February 1, 2025 – December 1, 2025)
- Building Construction (Phase 2) (February 1, 2026 – August 1, 2026)
- Building Construction (Phase 3) (February 1, 2027 – August 1, 2027)
- Paving (October 1, 2025 – February 1, 2026)
- Architectural Coatings (Phase 1) (February 1, 2025 – December 1, 2025)
- Architectural Coatings (Phase 2) (February 1, 2026 – August 1, 2026)
- Architectural Coatings (Phase 3) (February 1, 2027 – August 1, 2027)

CalEEMod was used to estimate construction emissions for the proposed Project. Table 3.3-10 shows the construction emissions that would result from the proposed Project. Detailed CalEEMod emissions calculations are presented in Appendix B.

TABLE 3.3-10: PROJECT CONSTRUCTION EMISSIONS (UNMITIGATED SCENARIO)

EMISSIONS YEAR	ROG (TONS/YEAR)	NOX (TONS/YEAR)	PM ₁₀ (LBS/DAY) ^(A)	CO (TONS/YEAR)
2025	4.85	3.63	160	8.31
2026	2.71	1.72	64.3	3.37
2027	2.67	1.56	64.1	3.13
Maximum	4.85	3.63	160	8.31
Threshold	10	10	80	Violation of State Ambient Air Quality Standard for CO
Above Threshold?	No	No	Yes	See Impact 3.3-3

NOTE: ^(A) MAXIMUM VALUE

SOURCE: CAL EEMOD (2022.1.1.21)

The YSAQMD has established a construction emissions threshold of significance for ozone precursors of 10 tons per year for ROG and NO_x, and 80 pounds per day for PM₁₀. The YSAQMD utilizes a screening process and separate model for CO impacts. As shown in the table above, construction emissions of ROG

would be at its maximum in year 2025, with approximately 4.85 tons of ROG, which is below the 10 tons per year threshold for ROG. Year 2025 would also be the peak year for construction emissions of NO_x, with approximately 3.63 tons of NO_x in that year, which is below the 10 tons per year threshold for NO_x. PM₁₀ construction emissions remain above the 80 pounds per day threshold for PM₁₀, with a maximum of approximately 160 pounds per day in 2025. This is a **potentially significant** impact.

MITIGATION MEASURE(S)

Mitigation Measure 3.3-2: *The Project applicant shall implement the following dust control measures during all construction activities. These measures shall be incorporated as part of the building and grading plans.*

- *Water all active construction sites at least two times daily. Frequency should be based on the type of operation, soil, and wind exposure.*
- *Apply water or dust palliatives on exposed earth surfaces as necessary to control dust emissions. Construction contracts shall include dust control treatment in late morning and at the end of the day, of all earth surfaces during clearing, grading, earth moving, and other site preparation activities. Non-potable water shall be used, where feasible. Existing wells shall be used for all construction purposes where feasible. Excessive watering will be avoided to minimize tracking of mud from the Project onto streets as determined by Public Works.*
- *Grading operations on the site shall be suspended during periods of high winds (i.e. winds greater than 15 miles per hour).*
- *Outdoor storage of fine particulate matter on construction sites shall be prohibited.*
- *Contractors shall cover any stockpiles of soil, sand and similar materials. There shall be no storage of uncovered construction debris for more than one week.*
- *Re-vegetation or stabilization of exposed earth surfaces shall be required in all inactive areas in the Project.*
- *Cover all trucks hauling dirt, sand, or loose materials, or maintain at least two feet of freeboard within haul trucks.*
- *Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydroseed area (as applicable).*
- *Sweep streets if visible soil material is carried out from the construction site.*
- *Treat accesses to a distance of 100 feet from the paved road with a 6-inch layer of gravel.*
- *Reduce speed on unpaved roads to less than 5 miles per hour.*

SIGNIFICANCE AFTER MITIGATION

Significant and Unavoidable

YSAQMD advises that projects exceeding project construction emissions thresholds should implement best management practices to reduce dust emissions and avoid localized health impacts that could be generated by dust. Approximately 99 percent of the PM₁₀ emissions during the construction emissions years would be related to PM₁₀ dust, with the remainder related to PM₁₀ exhaust. The YSAQMD recommends the use of construction dust mitigation measures to reduce PM₁₀ emissions during

construction. The YSAQMD’s *Handbook for Assessing and Mitigating Air Quality Impacts* (2007) provides a list of dust mitigation measures along with their effectiveness at reducing PM₁₀ emissions. **Table 3.3-11** identifies a list of construction dust mitigation reduction assumptions used for this analysis.

TABLE 3.3-11: CONSTRUCTION DUST MITIGATION REDUCTION ASSUMPTIONS¹⁹

MITIGATION MEASURE	SOURCE CATEGORY	EFFECTIVENESS	REFERENCES
Water all active construction sites at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.	Fugitive emissions from active, unpaved construction areas	50%	U.S. EPA, AP-42
Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydroseed area.	Wind erosion from inactive areas	Up to 80% (assumed 60%)	U.S. EPA, AP-42
Sweep streets if visible soil material is carried out from the construction site.	On-road entrained PM ₁₀	14%	U.S. EPA Report Number EPA-600/R-95-171
Treat accesses to a distance of 100 feet from the paved road with a 6-inch layer of gravel.	Mud/dirt carryout on-road entrained PM ₁₀	42-52% (assumed 42%)	U.S. EPA Report Number EPA-600/R-95-171

SOURCE: YOLO-SOLANO AIR QUALITY MANAGEMENT DISTRICT’S HANDBOOK FOR ASSESSING AND MITIGATING AIR QUALITY IMPACTS (2007)

CalEEMod allows the selection of mitigation measures that would reduce Project-related construction PM₁₀ emissions. The following parameters were used within CalEEMod to calculate reductions in PM₁₀, consistent with Mitigation Measure 3.3-2:

- Use Dust Suppressants (42% Fugitive Dust PM₁₀ reduction);
- Water Exposed Area two times daily (50% Fugitive Dust PM₁₀ reduction);
- Sweep Paved Roads (14% Fugitive Dust PM reduction).

Additional measures were applied in CalEEMod:

- Unpaved Road Mitigation: Limit on-site construction vehicle speeds to 5 mph.

Implementation of the CalEEMod dust mitigation listed above, which is consistent with the Mitigation Reduction Assumptions listed in Table 3.3-11 above, would reduce Project-related construction PM₁₀ emissions slightly. However, since Project-related construction PM₁₀ emissions are overwhelmingly generated by on-road construction vehicles, implementation of Mitigation Measure 3.3-2 would have a minimal quantitative impact. No further construction-related mitigation is feasible.

The overall results of Project construction emissions with mitigation incorporated is provided in Table 3.3-12, below.

¹⁹ Source: *Yolo-Solano Air Quality Management District’s Handbook for Assessing and Mitigating Air Quality Impacts*, 2007, Adopted July 11, 2007. Available: <https://www.ysaqmd.org/wp-content/uploads/Planning/CEQAHandbook2007.pdf>

TABLE 3.3-12: PROJECT CONSTRUCTION EMISSIONS (MITIGATED SCENARIO)

EMISSIONS YEAR	ROG (TONS/YEAR)	NOX (TONS/YEAR)	PM ₁₀ (LBS/DAY) ^(A)	CO (TONS/YEAR)
2025	4.85	3.63	160	8.31
2026	2.71	1.72	64.2	3.37
2027	2.67	1.56	64.1	3.13
Maximum	4.85	3.63	160	8.31
Threshold	10	10	80	Violation of State Ambient Air Quality Standard for CO
Above Threshold?	No	No	Yes	See Impact 3.3-3

NOTE: ^(A) MAXIMUM VALUE

SOURCE: CALHEMOD (2022.1.1.21)

As shown above, even with implementation of Mitigation Measure 3.3-2, which is consistent with the CalHEMOD mitigation listed above, the proposed Project would exceed the YSAQMD’s threshold for construction PM₁₀ emissions. Therefore, overall, the proposed Project would have a **significant and unavoidable** impact as it relates to construction emissions.

Impact 3.3-3: The proposed Project could increase the concentrations or number of CO hot spots. (Less than Significant)

Project traffic would increase concentrations of carbon monoxide along streets providing access to the Project. Carbon monoxide is a local pollutant (i.e., high concentrations are normally only found very near sources). The major source of carbon monoxide, a colorless, odorless, poisonous gas, is automobile traffic. Elevated concentrations (i.e., hotspots), therefore, are usually only found near areas of high traffic volume and congestion.

The CO screening approach outlined in the YSAQMD’s *Handbook for Assessing and Mitigating Air Quality Impacts* (2007) was used to estimate whether or not the proposed Project’s traffic impact would cause a potential CO hotspot. The CO screening approach uses the following screening criteria:

- Does the peak-hour Level of Service (LOS) on one or more streets or at one or more intersections in the Project vicinity reduce to an unacceptable LOS (typically LOS E or F)? or
- Will the proposed Project substantially worsen an already existing peak-hour LOS F on one or more streets or at one or more intersections in the Project vicinity? (Note: This includes situations where the average delay would increase by 10 seconds or more when Project-generated traffic is included.)

If the answer to the screening criteria is “yes,” then the proposed Project can be said to have the potential to create a violation of the CO standard and further modeling may be warranted. If the answer to the screening criteria is “no,” then further modeling is not warranted and the proposed Project would not create a violation of the CO standard.

The traffic impact analysis contained in Section 3.15 examined Level of Service (LOS) for intersections and road segments affected by the proposed Project. As shown in Section 3.15 of this EIR, all intersections except the I-80 Eastbound Ramps – Sparling Lane / Pedrick Road intersection would continue to operate

above the minimum City of Dixon LOS D standard. The I-80 Eastbound Ramps – Sparling Lane / Pedrick Road intersection would decline to LOS E (43.6 seconds per vehicle [spv]) during the p.m. peak hour. However, this overall intersection LOS would result in the intersection operating at LOS C conditions (34.3 spv) with the installation of the proposed traffic signal (see Section 3.15 for details). Therefore, the proposed Project would not reduce peak-hour LOS on any streets or intersections to an unacceptable LOS, or substantially worsen an already existing peak-hour LOS F on any streets or intersections, during the non-cumulative scenarios, after installation of the proposed traffic signal.

However, under the cumulative scenario, three intersections will operate below the City LOS D threshold under 2040 plus Project conditions. These include the Pedrick Road / I-80 Westbound Ramps – Sievers Road intersection, Pedrick Road at I-80 Eastbound Ramps – Sparling Lane and the Pedrick Road at Professional Drive intersection. All are projected to operate at LOS E or F conditions. In addition, the westbound queues in the left and right turn lanes along Dorset Drive at N. First Street will exceed the available storage. See Appendix G for further detail.

However, the cumulative conditions scenario is speculative (in that it is unclear that all of these proposed Projects would be built by the buildout timeframe, if at all). Moreover, traffic volumes for the intersections and streets, as identified by the traffic analysis (see Section 3.15 of this EIR), does not rise to a level sufficient to feasibly cause a CO Hotspot impact. The potential for the creation of a CO hotspot would require a roadway segment or intersection with peak hour traffic volumes in the tens of thousands. However, there are no traffic intersections or roadways that would be affected the proposed Project that would reach this level of traffic volume;²⁰ therefore, there is no potential for the creation of a CO hotspot that would result in violations of applicable ambient air quality standards, and further modeling is not warranted.

Since the Project is within an attainment area for carbon monoxide (ambient air quality standards are currently attained) and in an area with low background concentrations, and since it is not expected that a CO hotspot would be generated by the proposed Project under cumulative and non-cumulative scenarios, changes in carbon monoxide levels resulting from the proposed Project would not result in violations of the ambient air quality standards, and would represent a **less than significant** impact.

MITIGATION MEASURE(S)

None required.

Impact 3.3-4: The proposed Project would expose the public to toxic air contaminants. (Significant and Unavoidable)

The screening approach outlined in the YSAQMD's *Handbook for Assessing and Mitigating Air Quality Impacts* (2007) was used to estimate whether or not the proposed Project would result in air quality impacts associated with land use conflicts and sensitive receptors. The screening approach uses the Project location relative to other uses to determine if there is the potential for localized air quality impacts. Localized air pollution impacts generally occur in one of two ways:

²⁰ *Traffic Impact Analysis for the Campus 257 NEQSP*, 2023, Flecker Associates, December 6 2023.

1. a (new) source of air pollutants is proposed to be located close to existing receptors. For example, an industrial facility is proposed for a site near a school; or
2. a (new) development project with receptors is proposed near an existing source of air pollutants. For example, a hospital is proposed for a site near an industrial facility.

The amount of emissions, the proximity between the emissions source and the nearest receptor, the direction of prevailing winds, and local topography can all influence the severity of a localized impact. The most frequent impacts are those related to: Toxic Air Contaminants (TACs), Odors, and Construction Dust.

TACs

A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air. However, their high toxicity or health risk may pose a threat to public health even at very low concentrations. In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. This contrasts with the criteria pollutants for which acceptable levels of exposure can be determined and for which the state and federal governments have set ambient air quality standards.

The California Air Resources Board (CARB) published the *Air Quality and Land Use Handbook: A Community Health Perspective (2007)* to provide information to local planners and decision-makers about land use compatibility issues associated with emissions from industrial, commercial and mobile sources of air pollution. The ARB Handbook indicates that mobile sources continue to be the largest overall contributors to the State's air pollution problems, representing the greatest air pollution health risk to most Californians. The most serious pollutants on a statewide basis include diesel exhaust particulate matter (diesel PM), benzene, and 1,3-butadiene, all of which are emitted by motor vehicles. These mobile source air toxics are largely associated with freeways and high traffic roads. Non-mobile source air toxics are largely associated with industrial and commercial uses. **Table 3.3-13** provides the California Air Resources Board minimum separation recommendations on siting sensitive land uses.

The proposed Project does not include any of the source categories listed in Table 3.3-13. The proposed Project does not include the long-term operation of any other major onsite stationary sources of TACs. In addition, no major stationary sources of TACs have been identified in the immediate vicinity of the Project site. Sensitive receptors within the Project site are not located adjacent to a freeway or high traffic road that is considered a significant source of mobile source air toxics. Specifically, although I-80 is located adjacent to the Project site along the northwest corner of the Project site, all sensitive receptors (i.e. residential land uses) are located greater than 500 feet from I-80 (the residential land uses are located approximately 650 feet away from I-80, at their closest location). Furthermore, in the case that any light industrial uses that could generate TACs are proposed to be developed within the Dixon Opportunity Center, at the time when such uses are known, the YSAQMD would require additional analysis of such TACs using air dispersion modeling software (such as AERMOD) and applicable air toxics health risk analysis. Ultimately, the proposed Project would comply with the YSAQMD requirements associated with TAC modeling, as required, at the time specific Project details are known.

Implementation of the proposed Project would not be anticipated to result in an increased exposure of sensitive receptors to localized concentrations of TACs that would exceed the relevant standards or thresholds. Therefore, this proposed Project would have a **less than significant** impact on sensitive receptors.

TABLE 3.3-13: CARB MINIMUM SEPARATION RECOMMENDATIONS ON SITING SENSITIVE LAND USES²¹

SOURCE CATEGORY	ADVISORY RECOMMENDATIONS
Freeways and High-Traffic Roads	<ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.
Distribution Centers	<ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). • Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.
Rail Yards	<ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. • Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	<ul style="list-style-type: none"> • Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the ARB on the status of pending analyses of health risks.
Refineries	<ul style="list-style-type: none"> • Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	<ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners Using Perchloro-ethylene	<ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district. • Do not site new sensitive land uses in the same building with perc dry cleaning operations.
Gasoline Dispensing Facilities	<ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities.

SOURCE: YOLO-SOLANO AIR QUALITY MANAGEMENT DISTRICT'S HANDBOOK FOR ASSESSING AND MITIGATING AIR QUALITY IMPACTS (2007)

DUST/PARTICULATE MATTER

The proposed Project requires earthmoving during the Project's construction phase. The majority of earthmoving would be associated with clear and grub, rough grading, trench/backfill, final grading, and building construction activities.

These construction activities would result in temporary dust generation (PM₁₀). Without control, dust emissions can create nuisances or localized health impacts. CalEEMod was used to estimate construction PM₁₀ emissions for the proposed Project. Construction emissions are discussed in more detail under Impact 3.3-2, Construction Impacts. Detailed CalEEMod emissions calculations are presented in Appendix B.

However, because construction activities would result in a dust and particulate matter level that exceeds the YSAQMD's threshold, the impact would be **potentially significant**.

²¹ Source: Yolo-Solano Air Quality Management District's Handbook for Assessing and Mitigating Air Quality Impacts, 2007, Adopted July 11, 2007. Available: <https://www.ysaqmd.org/wp-content/uploads/Planning/CEQAHandbook2007.pdf>

MITIGATION MEASURE(S)

Mitigation Measure 3.3-4: *Implement Mitigation Measure 3.3-2.*

SIGNIFICANCE AFTER MITIGATION

Significant and Unavoidable

Mitigation Measure 3.3-4 requires the implementation of construction dust mitigation measures to reduce PM₁₀ emissions during construction. This mitigation measure is consistent with the recommendations of the YSAQMD in *Handbook for Assessing and Mitigating Air Quality Impacts* (2007). Below is a list of the best management practices that are required under this mitigation measure.

- Water all active construction sites at least three times daily. Frequency should be based on the type of operation, soil, and wind exposure.
- Apply water or dust palliatives on exposed earth surfaces as necessary to control dust emissions. Construction contracts shall include dust control treatment in late morning and at the end of the day, of all earth surfaces during clearing, grading, earth moving, and other site preparation activities. Non-potable water shall be used, where feasible. Existing wells shall be used for all construction purposes where feasible. Excessive watering will be avoided to minimize tracking of mud from the Project onto streets as determined by Public Works.
- Grading operations on the site shall be suspended during periods of high winds (i.e. winds greater than 15 miles per hour).
- Outdoor storage of fine particulate matter on construction sites shall be prohibited.
- Contractors shall cover any stockpiles of soil, sand and similar materials. There shall be no storage of uncovered construction debris for more than one week.
- Re-vegetation or stabilization of exposed earth surfaces shall be required in all inactive areas in the Project. Cover all trucks hauling dirt, sand, or loose materials.
- Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydroseed area.
- Sweep streets if visible soil material is carried out from the construction site.
- Treat accesses to a distance of 100 feet from the paved road with a 6-inch layer of gravel.
- Reduce speed on unpaved roads to less than 5 miles per hour.

Implementation of the dust mitigation required under Mitigation Measure 3.3-4, and as reprinted in the above bullet list, would not be sufficient to reduce proposed Project particulate matter emissions during Project construction to be reduced to below the applicable YSAQMD criteria pollutant threshold. Therefore, the proposed Project would have a **significant and unavoidable** impact with regard to dust and/or particulate matter.

**Impact 3.3-5: The proposed Project could expose sensitive receptors to odors.
(Less than Significant)**

While offensive odors rarely cause any physical harm, they can be unpleasant, leading to distress among the public and often generating citizen complaints to local governments and the YSAQMD. The general

nuisance rule (Health and Safety Code §41700 and YSAQMD District Rule 2.5) is the basis for the YSAQMD threshold. A project may reasonably be expected to have a significant adverse odor impact where it “generates odorous emissions in such quantities as to cause detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which may endanger the comfort, repose, health, or safety of any such person or the public, or which may cause, or have a natural tendency to cause, injury or damage to business or property.”

As discussed under Impact 3.3-4, implementation of the proposed Project would not place sensitive receptors adjacent to known toxic air contaminants above the applicable standards and thresholds.

Although the Dixon Downs/Mistler Farm closed landfill is within the Project site, the landfill has undergone a clean closure process, as provided in more detail in Section 3.9, Hazards and Hazardous Materials of this EIR. Specifically, a Clean Closure Plan for the landfill that described the planned excavation and removal of all landfilled wastes was prepared in February 2021 and approved by the Solano County Department of Resource Management, the lead enforcement agency for oversight of landfills within Solano County, in August 2021. The wastes contained in the former abandoned landfill at the Project site were completely excavated in November 2021 and subsequently removed from the site for proper offsite disposal in accordance with the provisions of the approved Clean Closure Plan. The resulting excavation was subsequently backfilled with clean soils. Observations and verification testing performed during the waste excavation work confirmed that all landfilled wastes were removed and that no soil contaminants remained.

Separately, as also described in Section 3.9, Hazards and Hazardous Materials of this EIR, a subsurface investigation conducted in 2005 in the area of a former 10,000-gallon diesel AST (associated with the former Mistler Farm facility, located within the northwestern portion of the Project site) identified diesel impact to soil and groundwater. Subsequently, remedial soil excavation was performed in this area in 2006 extending to a depth of about 20 feet. Additionally, groundwater monitoring wells were installed in the area of the AST and were sampled/tested over a period of time. Following the remedial and monitoring activities, it was concluded that the limited remaining residual petroleum hydrocarbons in the subsurface attributable to historical releases from the AST did not represent a significant threat to human health or the environment, and would not generate noticeable odors.

Similarly, implementation of the proposed Project would not directly create or generate objectionable odors to a significant degree. The proposed Project would also not place sensitive receptors near objectionable odors. Trash in enclosed areas would be separated at a sufficient distance from nearby residences, and enclosed in industry-standard containers, such that odors from trash would not generally generate noticeable odors for nearby residential receptors. The two closest source of odors includes active agricultural operations located east, west, north, and south of the Project site. However, these sources of odors are transient and are not anticipated to cause substantial offensive odors on the residents or users of the proposed Project. The Campbell’s Soup Supply Company is located directly to the east of the Project site; odors from this location during certain times of the year, particularly the tomato harvesting season of June-October, have the potential to be noticed by residents of the proposed Project. However, CEQA does not require analysis of existing sources of odors on new residents; therefore, further discussion of this potential source of odors on new Project receptors is not warranted (*California Building*

Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal. 4th 369). Separately, there are no other known sources of odors within the screening distance of one mile that is recommended by the YSAQMD. Therefore, there are no other known producers of odors within vicinity of the Project site.

The proposed Project does not propose uses that would create new odors that would adversely affect a substantial number of people. Therefore, operation of the proposed Project would not result in significant objectionable odors. Impacts associated with exposure to odors would be ***less than significant***.

MITIGATION MEASURE(S)

None required.

CUMULATIVE IMPACTS

Air quality issues have the potential to affect the entire air basin. Therefore, cumulative setting for air quality impacts is the Sacramento Valley Air Basin (SVAB), which encompasses eleven counties including all of Shasta, Tehama, Glenn, Colusa, Butte, Sutter, Yuba, Sacramento, and Yolo Counties, the westernmost portion of Placer County and the northeastern half of Solano County (including the City of Dixon). The SVAB is bounded by the North Coast Ranges on the west and Northern Sierra Nevada Mountains on the east. The intervening terrain is relatively flat.

Impact 3.3-6: Implementation of the proposed Project, in combination with other cumulative development, would cause a violation of any air quality standard or contribute substantially to an existing or projected air quality violation. (Significant and Unavoidable)

Under buildout conditions in Solano County, the SVAB would continue to experience increases in criteria pollutants and efforts to improve air quality throughout the basin would be hindered. Solano County has a State designation Attainment or Unclassified for all criteria pollutants except for ozone and PM₁₀. Solano County has a national designation of either Unclassified or Attainment for all criteria pollutants except for ozone. Table 3.3-2 presents the state and national attainment status for Solano County.

As discussed under Impact 3.3-1 and Impact 3.3-2, the YSAQMD has established its thresholds of significance by which the Project emissions are compared against to determine the level of significance.

For operational emissions, the YSAQMD has established an operational emissions threshold of significance for ozone precursors of 10 tons per year for ROG and NO_x, and 80 pounds per day for PM₁₀. The YSAQMD utilizes a screening process and separate model for CO impacts. Project-generated operational emissions would be above the YSAQMD 10 tons per year threshold for ROG and the 80 pounds per day threshold for PM₁₀, even under the mitigated scenario.

Moreover, the YSAQMD has established a construction emissions threshold of significance for ozone precursors of 10 tons per year for ROG and NO_x, and 80 pounds per day for PM₁₀. The YSAQMD utilizes a screening process and separate model for CO impacts. As shown in Table 3.3-12, construction emissions of ROG would be at its maximum in year 2025, with approximately 4.85 tons of ROG, which is below the 10 tons per year threshold for ROG. Year 2025 would also be the peak year for construction emissions of

NO_x, with approximately 3.63 tons of NO_x in that year, which is below the 10 tons per year threshold for NO_x. PM₁₀ construction emissions remain above the 80 pounds per day threshold for PM₁₀, with a maximum of approximately 160 pounds per day in 2025.

Because proposed Project construction and operational-related emission would exceed YSAQMD's thresholds, this cumulative impact is considered **significant and unavoidable** and **cumulatively considerable**.

MITIGATION MEASURE(S)

Mitigation Measure 3.3-6: *Implement Mitigation Measure 3.3-2.*

SIGNIFICANCE AFTER MITIGATION

Significant and Unavoidable

Implementation of the CalEEMod dust mitigation listed in Mitigation Measure 3.3-2 would reduce Project-related construction PM₁₀ emissions slightly. However, since Project-related construction PM₁₀ emissions are overwhelmingly generated by on-road construction vehicles, implementation of Mitigation Measure 3.3-6 would have a minimal quantitative impact. No further construction-related mitigation is feasible. Even with implementation of Mitigation Measure 3.3-6, which is consistent with the CalEEMod mitigation listed above, the proposed Project would exceed the YSAQMD's threshold for construction PM₁₀ emissions. Therefore, overall, the cumulative construction emissions impact would be **significant and unavoidable**.

Impact 3.3-7: Implementation of the proposed Project, in combination with other cumulative development, would not cause carbon monoxide impacts. (Less than Significant)

Under buildout conditions in Solano County, carbon monoxide levels are anticipated to increase as new development occurs, largely generated by new traffic. Project traffic would increase concentrations of carbon monoxide along streets providing access to the Project. Carbon monoxide (CO) is a local pollutant (i.e., high concentrations are normally only found very near sources).

A cumulative traffic analysis was prepared for the Project by Flecker Associates. However, cumulative scenario traffic volumes for the intersections and streets, as identified by the traffic analysis (see Section 3.15 of this EIR), does not rise to a level sufficient to feasibly cause a CO Hotspot impact. The potential for the creation of a CO hotspot would require a roadway segment or intersection with peak hour traffic volumes in the tens of thousands. However, as described under Impact 3.3-3, there are no cumulative scenario traffic intersections or roadways that would be affected by the proposed Project that would reach this level of traffic volume;²² therefore, there is no potential for the creation of a CO hotspot that would result in violations of applicable ambient air quality standards, and further modeling is not warranted.

²² *Traffic Impact Analysis for the Campus 257 NEQSP*, 2023, Flecker Associates, December 6 2023.

Since the Project is within an attainment area for carbon monoxide (ambient air quality standards are currently attained) and in an area with low background concentrations, and since it is not expected that a CO hotspot would be generated by the proposed Project under the cumulative scenario, changes in carbon monoxide levels resulting from the proposed Project would not result in violations of the ambient air quality standards, and would represent a *less than significant* impact.

MITIGATION MEASURE(S)

None required.

Impact 3.3-8: Implementation of the proposed Project, in combination with other cumulative development, would expose the public to toxic air contaminants. (Significant and Unavoidable)

The screening approach outlined in the YSAQMD's *Handbook for Assessing and Mitigating Air Quality Impacts* (2007) was used to estimate whether or not the proposed Project would result in air quality impacts associated with land use conflicts and sensitive receptors. The screening approach uses the Project location relative to other uses to determine if there is the potential for localized air quality impacts. Localized air pollution impacts generally occur in one of two ways:

1. a (new) source of air pollutants is proposed to be located close to existing receptors. For example, an industrial facility is proposed for a site near a school; or
2. a (new) development project with receptors is proposed near an existing source of air pollutants. For example, a hospital is proposed for a site near an industrial facility.

The amount of emissions, the proximity between the emissions source and the nearest receptor, the direction of prevailing winds, and local topography can all influence the severity of a localized impact. The most frequent impacts are those related to: Toxic Air Contaminants (TACs), Odors, and Construction Dust.

The proposed Project does not include any of the source categories listed in Table 3.3-13. The proposed Project does not include the long-term operation of any other major onsite stationary sources of TACs. In addition, no major stationary sources of TACs have been identified in the immediate vicinity of the Project site. Sensitive receptors within the Project site are not located adjacent to a freeway or high traffic road that is considered a significant source of mobile source air toxics. Specifically, although I-80 is located adjacent to the Project site along the northwest corner of the Project site, all sensitive receptors (i.e. residential land uses) are located greater than 500 feet from I-80 (the residential land uses are located approximately 650 feet away from I-80, at their closest location). Furthermore, in the case that any light industrial uses that could generate TACs are proposed to be developed within the Dixon Opportunity Center, at the time when such uses are known, the YSAQMD would require additional analysis of such TACs using air dispersion modeling software (such as AERMOD) and applicable air toxics health risk analysis. Ultimately, the proposed Project would comply with the YSAQMD requirements associated with TAC modeling, as required, at the time specific Project details are known.

However, Project construction activities would result in temporary dust generation (PM₁₀). Without control, dust emissions can create nuisances or localized health impacts. CalEEMod was used to estimate

construction PM₁₀ emissions for the proposed Project. Construction emissions are discussed in more detail under Impact 3.3-2, Construction Impacts. Detailed CalEEMod emissions calculations are presented in Appendix B. However, implementation of the dust mitigation required under Mitigation Measure 3.3-2 would not be sufficient to reduce proposed Project particulate matter emissions during Project construction to be reduced below the applicable YSAQMD criteria pollutant threshold. Therefore, the proposed Project would have a **significant and unavoidable** impact with regard to dust and/or particulate matter under cumulative conditions.

MITIGATION MEASURE(S)

Mitigation Measure 3.3-8: *Implement Mitigation Measure 3.3-2.*

Significant and Unavoidable

Implementation of the CalEEMod dust mitigation listed in Mitigation Measure 3.3-2 would reduce Project-related construction PM₁₀ emissions slightly. However, since Project-related construction PM₁₀ emissions are overwhelmingly generated by on-road construction vehicles, implementation of Mitigation Measure 3.3-8 would have a minimal quantitative impact. No further construction-related mitigation is feasible. Even with implementation of Mitigation Measure 3.3-6, which is consistent with the CalEEMod mitigation listed above, the proposed Project would exceed the YSAQMD's threshold for construction PM₁₀ emissions. Therefore, overall, the cumulative construction emissions impact would be **significant and unavoidable**.

Impact 3.3-9: Implementation of the proposed Project, in combination with other cumulative development, would not expose sensitive receptors to odors. (Less than Significant)

While offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the YSAQMD. The general nuisance rule (Health and Safety Code §41700 and YSAQMD District Rule 2.5) is the basis for the YSAQMD threshold. A project may reasonably be expected to have a significant adverse odor impact where it "generates odorous emissions in such quantities as to cause detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which may endanger the comfort, repose, health, or safety of any such person or the public, or which may cause, or have a natural tendency to cause, injury or damage to business or property."

As discussed under Impact 3.3-4, implementation of the proposed Project would not place sensitive receptors adjacent to known toxic air contaminants above the applicable standards and thresholds.

Similarly, implementation of the proposed Project would not directly create or generate objectionable odors to a significant degree. The proposed Project would also not place sensitive receptors near objectionable odors. Trash in enclosed areas would be separated at a sufficient distance from nearby residences, and enclosed in industry-standard containers, such that odors from trash would not generally generate noticeable odors for nearby residential receptors. The closest source of odors includes active agricultural operations located east, west, north, and south of the Project site. However, these sources of

odors are transient and are not anticipated to cause substantial offensive odors on the residents or users of the proposed Project. Separately, there are no other known sources of odors within the screening distance of one mile that is recommended by the YSAQMD. Therefore, there are no other known producers of odors within vicinity of the Project site.

The proposed Project does not propose uses that would create new odors that would adversely affect a substantial number of people. Therefore, operation of the proposed Project would not result in significant objectionable odors, even when considering the Project in a cumulative context. Therefore, impacts associated with exposure to odors would be ***less than significant***.

MITIGATION MEASURE(S)

None required.

This section describes the regulatory setting, regional biological resources, and impacts that are likely to result from Project implementation. This section is based in part on the following technical studies:

- Aquatic Resources Delineation – Dixon 257 Project, City of Dixon, Solano County, California (BARGAS Environmental Consulting, 2021) (see Appendix C of this EIR);
- Dixon 257 Project Biological Resources Assessment (Helix Environmental Planning, 2023) (see Appendix D of this EIR); and
- Preliminary Jurisdictional Determination (United States of America Department of Defense, U.S. Army Corps of Engineers, Sacramento District, May 11, 2023) (see Appendix E).

The analysis contained in this section is intended to be at a project-level, and covers impacts associated with development of the entire site to an urban use.

One comment was received during the public review period or scoping meeting for the Notice of Preparation regarding this topic from the following: California Department of Fish and Wildlife (CDFW) (September 21, 2023). The portions of this comment related to this topic are addressed within this section. Full comments are included in Appendix A of this EIR.

3.4.1 ENVIRONMENTAL SETTING

REGIONAL SETTING

The Project site is located within the Bay Area/Delta Bioregion. The Bay Area/Delta Bioregion extends from the Pacific Ocean to the Sacramento Valley and San Joaquin Valley bioregions to the northeast and southeast, and a short stretch of the eastern boundary joins the Sierra Bioregion at Amador and Calaveras Counties. The bioregion is bounded by the Klamath/North Coast on the north and the Central Coast Bioregion to the south. The Bay Area/Delta Bioregion is one of the most populous areas of the state, encompassing the San Francisco Bay Area and the Sacramento-San Joaquin River Delta. The water that flows through the Delta supplies two-thirds of California's drinking water, irrigating farmland, and sustaining fish and wildlife and their habitat. The bioregion fans out from San Francisco Bay in a jagged semi-circle that takes in all or part of 12 counties: Alameda, Contra Costa, Marin, Napa, San Francisco, San Joaquin, San Mateo, Santa Clara, Solano, Sonoma, and parts of Sacramento and Yolo. The habitats and vegetation of the Bay Area/Delta Bioregion are as varied as the geography.

LOCAL SETTING

The Project site is located east of Pedrick Road, north of Vaughn Road, and south of Interstate 80 (I-80), in the City of Dixon, California. The site is situated in Sections 1 and 12 of Township 7 North and Range 1 East, and is depicted on the U.S. Geological Survey (USGS) Dixon, CA 7.5-minute quadrangle map. The Project site is in an agricultural setting and is currently used to cultivate various row crops. Aerial imagery of the Project site indicates row crops have been cultivated on the site for at least the past thirty-five years. Historic aerial imagery indicates there were several farm structures present in the center of the Project site in the northwest corner of Assessor Parcel Number (APN) 0111-040-020 at one time and it is currently used to store farm equipment and hay bales during

harvest. This rectangular area in the west-central portion of the Project site is not utilized for crops and is currently supporting bee boxes. Old pavement, woody debris, rubble piles, and evidence of previous structures were observed in this area. Dirt access roads and ditches occur throughout the Project site along the perimeters of the fields, and aerial imagery also indicates the ditches are created, moved, and filled as crops are rotated and cultivated.

A list of plant species observed is provided in Appendix D, Observed Plant Species, of Appendix C. At the time this site visit occurred (March 26, 2021), much of the cropland was fallow or being prepared for planting. Fields in the center of the Project site contained alfalfa (*Medicago sativa*) and a cover crop mix dominated by clover (*Trifolium* sp.).

VEGETATION COMMUNITIES

The majority of the Project site is cultivated row crops surrounded by heavily disturbed ruderal vegetation best described as *Avena* spp. - *Bromus* spp. Herbaceous Semi-Natural Alliance and *Lolium perenne* Herbaceous Semi- Natural Alliance. The ruderal/disturbed area in the center of the Project site is dominated by horseweed (*Erigeron canadensis*) and field bindweed (*Convolvulus arvensis*), but also contains a few small tree-of-heaven saplings (*Ailanthus altissima*). The remaining ruderal/disturbed areas are a mix of non-native species including Italian ryegrass (*Festuca perennis*; formerly *Lolium perenne*), spikeweed (*Centromadia fitchii*), long beak stork's-bill (*Erodium botrys*), black mustard (*Brassica nigra*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), and poison hemlock (*Conium maculatum*).

The agricultural drainage ditches (Ditch-1 through Ditch-16, see further below) in the Project site are almost completely unvegetated except for occasional remnant senescent vegetation and tree-of-heaven saplings.

A list of plant species (including NWPL indicator status) observed at the surveyed data points and features within the Project site is presented in Appendix D of Appendix C.

BIOLOGICAL COMMUNITIES

Two biological communities occur within the Project site: cropland and developed/disturbed. Ditches also occur within these habitat types. A discussion of these habitats is included below and a comprehensive list of all plant and wildlife species observed within the Project site is provided in Appendix C of Appendix D. Representative site photographs are included in Appendix D of Appendix D.

Cropland

Cropland makes up the majority of the Project site and is common in the surrounding lands. Vegetation in this habitat type is varied and does not conform to normal habitat stages. Vegetation can either be annual or perennial, vary according to location in the state, and germinate at various times of the year. Crop rotation is typically used to conserve soil nutrients and maintain productivity. These crops are often established on fertile soils which historically supported an abundance of wildlife. Many species of wildlife have adapted to croplands but are often controlled by fencing, trapping, and poisoning to prevent excessive crop losses. Availability of irrigation water during dryer

months benefits many wildlife species as a source of water. Approximately 261.192 acres of cropland, including along proposed roadway connections, occur in the Project site, as shown on **Figure 3.4-1**.

Few plants species were observed within the cropland and the majority of the fields were bare during the field survey performed as part of the Biological Resources Assessment on February 2, 2023. Plant species observed along the perimeters of the fields are ruderal and invasive in nature and include species such as black mustard (*Brassica nigra*), cheeseweed mallow (*Malva parviflora*), foxtail barley (*Hordeum murinum*), and slim oats (*Avena barbata*).

Developed/Disturbed

Developed habitat is often comprised of little to no vegetation and typically contains built structures and/or maintained surfaces such as roads or parking lots. Vegetation that does occur within this habitat type is often ornamental, rather than invasive or noxious weeds such as in ruderal habitat types. Disturbed habitats typically retain a soil substrate, but the vegetation communities are either lacking or are comprised of mostly ruderal plant species. Approximately 17.426 acres of developed/disturbed habitat occur within the Project site and is made up of dirt access roads, paved roads, and a bare area within the Project site that likely historically contained structures (see Figure 3.4-1).

Few plant species were observed within the developed/disturbed areas in the Project site; dominant plant species observed include yellow star-thistle (*Centaurea solstitialis*), stinkwort (*Dittrichia graveolens*), field bindweed (*Convolvulus arvensis*), and slim oats.

SOILS

Mapped soil types in the Project site were determined using the Soil Survey Geographic Database (SSURGO) and Natural Resources Conservation Service (NRCS) Web Soil Survey, Custom Soil Resource Report.

Table 3.4-1 identifies the soil type by series and subgroup, map symbol, and hydric characteristics. The NRCS soil report for the Project site is included in Appendix C of Appendix C.

TABLE 3.4-1: SOIL TYPES WITHIN THE PROJECT SITE

SOIL SERIES	MAP SYMBOL	HYDRIC RATING
Brentwood clay loam, 0 to 2 percent slopes	BrA	No
Capay silty clay loam, 0 percent slopes, MLRA 17	Ca	No
Yolo loam, 0 to 4 percent slopes, MLRA 17	Yo	No
Yolo silty clay loam, 0 to 2 percent slopes, MLRA 17	Ys	No

SOURCE: AQUATIC RESOURCES DELINEATION (BARGAS ENVIRONMENTAL CONSULTING, 2021), TABLE 1.

HYDROLOGY

The Project site is situated within the Lower Sacramento Hydrologic Unit Code (HUC)-18020109. All mapped ditches and other waters appear to be fed by groundwater pumps related to the irrigation of cropland. These features contained no water at the time of the survey. A review of USGS

3.4 BIOLOGICAL RESOURCES

topographic maps and Google Earth aerial imagery did not show presence of any natural drainages, creeks, or other waters and field observations confirmed this to be accurate.

The hydrologic regime in the Project site is influenced by irrigation, seasonal precipitation, stormwater runoff from adjacent lands, and irrigation runoff from adjacent parcels.

AQUATIC RESOURCES AND WETLANDS

As part of the Aquatic Resources Delineation, wetland boundaries within the project area (and Offsite areas) were surveyed and mapped. Survey efforts completed as part of the Aquatic Resources Delineation identified 18 interconnected agricultural irrigation ditches covering 1.915 acres over 7,786 linear feet (see **Table 3.4-2**). **Figure 3.4-2** provides a labeled view of the ditches. In addition, delineation data sheets are included in Appendix A of Appendix C, and representative photographs are included in Appendix B of Appendix C.

TABLE 3.4-2: AQUATIC FEATURES OBSERVED IN THE PROJECT SITE

FEATURE TYPE	LABEL ¹	ACREA (ACRES) ²	LENGTH (LINEAR FEET)
Ditch	Ditch-1	0.151	1,189
Ditch	Ditch-2	0.005	35
Ditch	Ditch-3	0.002	6
Ditch	Ditch-4	0.124	976
Ditch	Ditch-5	0.002	22
Ditch	Ditch-6	0.013	102
Ditch	Ditch-7	0.850	673
Ditch	Ditch-8	0.514	3,442
Ditch	Ditch-9	0.006	36
Ditch	Ditch-10	0.006	38
Ditch	Ditch-11	0.001	11
Ditch	Ditch-12	0.003	19
Ditch	Ditch-13	0.026	143
Ditch	Ditch-14	0.013	38
Ditch	Ditch-15	0.026	153
Ditch	Ditch-16	0.036	144
Ditch	Ditch-17	0.132	720
Ditch	Ditch-18	0.005	39
Total		1.915	7,786

NOTES: ¹THE FEATURE OUTSIDE OF THE PROJECT BOUNDARY (PEM-1) WHICH WAS IDENTIFIED IN THE AQUATIC RESOURCES DELINEATION (BARGAS ENVIRONMENTAL CONSULTING, 2021) IS NO LONGER A PART OF THE PROPOSED PROJECT. AS SUCH, PEM-1 IS NOT INCLUDED IN THIS TABLE OR ANALYZED AS PART OF THIS SECTION.

²ACREAGES ARE CALCULATED ESTIMATIONS THAT ARE SUBJECT TO MODIFICATION PENDING FORMAL VERIFICATION BY USACE.

SOURCE: AQUATIC RESOURCES DELINEATION (BARGAS ENVIRONMENTAL CONSULTING, 2021), TABLE 2.

The drainage ditches fed by groundwater pumping were dry at the time of the survey. These features range in width at the ordinary high water mark (OHWM) from 3.5 feet to 8 feet and from 0.83 to 1.2 feet in depth. The longest of these features is Ditch-8, which extended 3,442 feet and the shortest

feature is Ditch-3 at 6 feet in length. These features were mapped as individual features to capture the varying widths of the irrigation ditches more accurately. However, most of the features are hydrologically connected or represent segments of the same ditch. Ditch-1 through Ditch-12 are segments of a loop surrounding the cultivated cropland that comprise the majority of the Project site.

SPECIAL-STATUS SPECIES

Special-status species are generally defined as: 1) species listed as a candidate, threatened, or endangered under the federal or state Endangered Species Act; 2) species considered rare or endangered under the California Environmental Quality Act; 3) plants considered “rare, threatened, or endangered in California” by the California Native Plant Society (Lists 1B); 4) animal listed as "species of special concern" by the state; and 5) animals fully protected in California by the Fish and Game Code.

The following discussion is based on a background search of special-status species that are documented in the California Natural Diversity Database (CNDDDB), the California Native Plant Society’s (CNPS) Inventory of Rare and Endangered Plants, the U.S. Fish and Wildlife Service’s (USFWS) endangered and threatened species lists, and observations from local experts. The background search was regional in scope and focused on the documented occurrences within the 9-quadrangle radius of the Project site, which includes the following USGS quadrangles: Winters, Merritt, Davis, Allendale, Dixon, Saxon, Elmira, Dozier, and Liberty Island.

The search revealed 78 special-status species within the region: 37 plants, and 41 animals. **Table 3.4-3** provides a list of special-status plant species that are documented in the region, their habitat, potential for Project site occurrence, and current protective status. **Table 3.4-4** provides a list of special-status wildlife species that are documented in the region, their habitat, potential for Project site occurrence, and current protective status. Figure 3.4-2 illustrates the general location of these records maintained by the CNDDDB.

TABLE 3.4-3: SPECIAL-STATUS PLANTS WITHIN 9-QUADRANGLE REGION FOR PROJECT SITE

<i>PLANT</i>	<i>STATUS (FED;CA; CNPS)</i>	<i>HABITAT ASSOCIATION</i>	<i>BLOOMING PERIOD</i>	<i>POTENTIAL FOR OCCURRENCE</i>
<i>Astragalus tener var. ferrisiae</i> Ferris' milk-vetch	--;--;1B.1	Meadows, seeps, foothill and valley grasslands. Usually found in subalkaline flats.	April to May	Will not occur. Suitable habitat types do not occur in the Project site and dry, adobe soil is also absent. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Astragalus tener var. tener</i> alkali milk-vetch	--;--;1B.2	Favors alkaline playas, valley and foothill grasslands, and vernal pools. Also occurs in open, alkaline and seasonally moist meadows from 0 to 200 feet.	March to June	Will not occur. While some soil types mapped within the Project site can be considered moderately alkaline, grasslands, playas, vernal pools, and alkaline flats do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-

3.4 BIOLOGICAL RESOURCES

<i>PLANT</i>	<i>STATUS (FED;CA; CNPS)</i>	<i>HABITAT ASSOCIATION</i>	<i>BLOOMING PERIOD</i>	<i>POTENTIAL FOR OCCURRENCE</i>
				status plants to occur. Two documented occurrences within five miles of the Project site (CDFW 2023).
<i>Atriplex cordulata</i> var. <i>cordulata</i> heartscale	--;--;1B.2	Grows in grasslands with sandy alkaline or saline soils. Favors chenopod scrub, meadows, seeps, valley and foothill grasslands.	April to October	Will not occur. While some soil types mapped within the Project site can be considered moderately alkaline, chenopod scrub, grasslands, meadows, or seeps do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Atriplex depressa</i> brittlescale	--;--;1B.2	Prefers meadows or grasslands with alkaline or saline clay soils. Also favors vernal pools, meadows and seeps, and grasslands.	April to October	Will not occur. While some soil types mapped within the Project site can be considered moderately alkaline, clay soils, playas, grasslands, vernal pools, chenopod scrub, meadows, and seeps do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Extriplex joaquiniana</i> San Joaquin spearscale	--;--;1B.2	Found in seasonal alkali wetlands or alkali sink scrub. Favors chenopod scrub, playas, valley and foothill grasslands and meadows and seeps.	April to October	Will not occur. While some soil types mapped within the Project site can be considered moderately alkaline, chenopod scrub, meadows, seeps, playas, and valley and foothill grasslands do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Atriplex persistens</i> vernal pool smallscale	--;--;1B.2	Vernal pools. Alkaline vernal pools. 3-115 m.	June, August to October	Will not occur. No suitable vernal pool habitat.
<i>Centromadia parryi</i> ssp. <i>parryi</i> pappose tarplant	--;--;1B.2	Chaparral, coastal prairie, meadows and seeps, coastal salt marsh, valley and foothill grassland. Vernal mesic, often alkaline sites. 1-500 m.	May to November	Will not occur. While some soil types mapped within the Project site can be considered moderately alkaline, suitable habitat types do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Chloropyron molle</i> ssp. <i>hispidum</i> hispid salty bird's-beak	--;--;1B.1	Meadows and seeps, playas, valley and foothill grassland. In damp alkaline soils, especially in alkaline meadows and alkali sinks with <i>Distichlis</i> . 5-155 m.	June to September	Will not occur. While some soil types mapped within the Project site can be considered moderately alkaline, meadows, seeps, playas, and valley and foothill grasslands do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Cicuta maculata</i> var. <i>bolanderi</i>	--;--;2B.1	Marshes and swamps. In fresh or brackish water. 0-20 m. Often	June to September	Will not occur. Marsh and swamp habitat does not occur in the Project site. In addition, the Project site is regularly disturbed in association

PLANT	STATUS (FED;CA; CNPS)	HABITAT ASSOCIATION	BLOOMING PERIOD	POTENTIAL FOR OCCURRENCE
Bolander's water-hemlock		on serpentine; various soils reported though usually on clay, in grassland. 3-385 m.		with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Fritillaria liliacea</i> fragrant fritillary	--;--;1B.2	Coastal scrub, valley and foothill grassland, coastal prairie, cismontane woodland.	February to April	Will not occur. Serpentine soils and suitable habitat types do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Gratiola heterosepala</i> Boggs Lake hedge-hyssop	--;CE;1B.2	Marshes and swamps (freshwater), vernal pools. Clay soils; usually in vernal pools, sometimes on lake margins. 4-2410 m.	April to August	Will not occur. Clay soils and suitable aquatic habitats do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Fritillaria pluriflora</i> adobe-lily	--;--;1B.2	Grows in chaparral, cismontane woodland, or foothill grasslands with clay or serpentine soils. Found at elevations of 60-705 meters.	February to April	Will not occur. Adobe soils and suitable habitat types do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur. One documented occurrence within five miles of the Project site (CDFW 2023).
<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i> woolly rose-mallow	--;--;1B.2	Marshes and swamps (freshwater). Moist, freshwater-soaked river banks and low peat islands in sloughs; can also occur on riprap and levees. In California. Found at elevations of 0-120 meters.	June to September	Will not occur. No suitable vernal pool, marsh, or swamp habitat.
<i>Isocoma arguta</i> Carquinez goldenbush	--;--;1B.1	Valley and foothill grassland. Alkaline soils, flats, lower hills. On low benches near drainages and on tops and sides of mounds in swale habitat. 1-50 m.	August to December	Will not occur. While some soil types mapped within the Project site can be considered moderately alkaline, valley and foothill grasslands and suitable aquatic habitats do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Lasthenia chrysantha</i> alkali-sink goldfields	--;--;1B.1	Vernal pools. Alkaline. 0-200 m.	February to June	Will not occur. While some soil types mapped within the Project site can be considered moderately alkaline, vernal pools do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Lasthenia conjugens</i>	FE;--;1B.1	Valley and foothill grassland, vernal	March to June	Will not occur. Suitable habitat types do not occur in the Project site. In addition, the Project

3.4 BIOLOGICAL RESOURCES

<i>PLANT</i>	<i>STATUS (FED;CA; CNPS)</i>	<i>HABITAT ASSOCIATION</i>	<i>BLOOMING PERIOD</i>	<i>POTENTIAL FOR OCCURRENCE</i>
Contra Costa goldfields		pools, alkaline playas, cismontane woodland. Vernal pools, swales, low depressions, in open grassy areas. 1-450 m.		site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	--;--;1B.1	Coastal salt marshes, playas, vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. 1-1,375 m.	February to June	Will not occur. While some soil types mapped within the Project site can be considered moderately alkaline, suitable habitat types do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i> Delta tule pea	--;--;1B.2	Marshes and swamps. In freshwater and brackish marshes. Often found with Typha, Aster lentus, Rosa californica, Juncus spp., Scirpus, etc. Usually on marsh and slough edges. 0-5 m.	May to July (August-September)	Will not occur. Suitable aquatic habitat does not occur in the Project site and the Project site is above the known elevational range of this species. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Legenere limosa</i> legenere	--;--;1B.1	Deep, seasonally wet habitats such as vernal pools, ditches, marsh edges, and riverbanks; below 150 m.	April to June	Will not occur. Vernal pools do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Lepidium latipes</i> var. <i>heckardii</i> Heckard's pepper-grass	--;--;1B.2	This annual prefers valley and foothill grasslands with alkaline soils. Found at elevations of 2-200 m.	March to May	Will not occur. While some soil types mapped within the Project site can be considered moderately alkaline, vernal pools and grasslands do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Lilaeopsis masonii</i> Mason's lilaeopsis	--;CR;1B.1	Prefers brackish or freshwater swamps, intertidal marshes, and riparian scrub at or below 35 feet.	April to November	Will not occur. Suitable aquatic habitat does not occur in the Project site and the Project site is above the known elevational range of this species. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Limosella australis</i> Delta mudwort	--;--;2B.1	Riparian scrub, marshes and swamps. Usually on mud banks of the Delta in marshy or scrubby riparian associations; often with <i>Lilaeopsis masonii</i> . 0-5 m.	May to August	Will not occur. Suitable aquatic habitat does not occur in the Project site and the Project site is above the known elevational range of this species. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.

PLANT	STATUS (FED;CA; CNPS)	HABITAT ASSOCIATION	BLOOMING PERIOD	POTENTIAL FOR OCCURRENCE
<i>Navarretia leucocephala</i> <i>ssp. bakeri</i> Baker's navarretia	--;--;1B.1	This annual herb grows in vernal pools, cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grasslands. Can be found at elevations of 5-1,740 meters.	April to July	Will not occur. While some soil types mapped within the Project site can be considered moderately alkaline, suitable habitat types do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Neostapfia colusana</i> Colusa grass	FT;CE;1B.1	Vernal pools or other seasonal wetlands. Found at elevations of 5-200 meters.	May to August	Will not occur. Adobe soils and vernal pools do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Orcuttia inaequalis</i> San Joaquin Valley Orcutt grass	FT;CE;1B.1	Vernal pools. 10-755 m.	April to September	Will not occur. Vernal pools do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Plagiobothrys hystriculus</i> bearded popcorn- flower	--;--;1B.1	Vernal pools or other seasonal wetlands. Found at elevations of 0-274 meters.	April to May	Will not occur. Vernal pools and swales do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Puccinellia simplex</i> California alkali grass	--;--;1B.2	Meadows and seeps, chenopold scrub, valley and foothill grasslands, vernal pools. Alkaline, vernal mesic. Sinks, flats, and lake margins. 2-930 meters.	March to May	Will not occur. While some soil types mapped within the Project site can be considered moderately alkaline, suitable habitat types do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	--;--;1B.2	Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0-605 m.	May to November	Will not occur. Suitable aquatic habitat does not occur in the Project site. While this species is known to occur in ditches, the ditches within the Project site are regularly altered in association with crop rotation and do not consistently hold water. Herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Sidalcea keckii</i> Keck's checkerbloom	FE;--;1B.1	Cismontane woodland, valley and foothill grassland. Grassy slopes in blue oak woodland. On serpentine-derived, clay soils, at least sometimes. 85-505 m.	April to May (June)	Will not occur. The Project site is below the known elevational range of this species and suitable soil and habitat types are absent. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.

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<i>PLANT</i>	<i>STATUS (FED;CA; CNPS)</i>	<i>HABITAT ASSOCIATION</i>	<i>BLOOMING PERIOD</i>	<i>POTENTIAL FOR OCCURRENCE</i>
<i>Symphotrichum lentum</i> Suisun Marsh aster	--;--;1B.2	Marshes and swamps (brackish and freshwater). Most often seen along sloughs with Phragmites, Scirpus, blackberry, Typha, etc. 0-15 m.	(April) May to November	Will not occur. Suitable aquatic habitat does not occur in the Project site and the Project site is above the known elevational range of this species. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Trifolium amoenum</i> two-fork clover	FE;--;1B.1	Valley and foothill grassland, coastal bluff scrub. Sometimes on serpentine soil, open sunny sites, swales. Most recently cited on roadside and eroding cliff face. 5-310 m.	April to September	Will not occur. Serpentine soils and suitable habitat types do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Trifolium hydrophilum</i> saline clover	--;--;1B.2	Grows in marshes, swamps, and vernal pools with alkaline soils. This annual herb can be found at elevations of 0-300 meters.	April to June	Will not occur. Suitable habitat types do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Tuctoria mucronata</i> Crampton's tuctoria	FE;CE;1B.1	Vernal pools or other seasonal wetlands. This annual herb can be found at elevations of 5-10 m.	April to August	Will not occur. Vernal pools and lakes do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Eryngium jepsonii</i> Jepson's coyote-thistle	--;--;1B.2	Vernal pools or other seasonal wetlands such as valley and foothill grasslands. Mostly found in clay habitats at elevations of 3-300 meters.	April to August	Will not occur. Vernal pool and grassland habitat do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Delphinium recurvatum</i> Recurved larkspur	--;--;1B.2	This perennial herb is found in alkaline soils typically in chenopod scrub, cismontane woodland, and valley and foothill grasslands. Found at elevations of 3-790 m.	March to June	Will not occur. While some soil types mapped within the Project site can be considered moderately alkaline, chenopod scrub, cismontane woodland, and valley and foothill grasslands do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.
<i>Downingia pusilla</i> Dwarf downingia	--;--;2B.2	Annual herb found in vernal pools and valley and foothill grasslands (mesic). At elevations of 1-445 m.	March to May	Will not occur. Vernal pool and grassland habitat do not occur in the Project site. In addition, the Project site is regularly disturbed in association with agricultural activities and herbicide is also known to be used onsite which likely limits the potential for special-status plants to occur.

SOURCE: CDFW CNDDDB, 2023; DE NOVO PLANNING GROUP, 2023; AND BIOLOGICAL RESOURCES ASSESSMENT, HELIX ENVIRONMENTAL PLANNING, 2023.

Abbreviations:

Federal Lists

FE Federal Endangered

FT Federal Threatened

State Lists

CE California Endangered Species

CT California Threatened

California Rare Plant Ranks (formerly CNPS Lists)

1B CNPS - Rare, Threatened, or Endangered

2B CNPS - Rare, Threatened, or Endangered in California, But More Common Elsewhere

TABLE 3.4-4: SPECIAL-STATUS ANIMALS WITHIN 9-QUADRANGLE REGION FOR PROJECT SITE

<i>ANIMAL</i>	<i>STATUS (FED;CA)</i>	<i>HABITAT ASSOCIATION</i>	<i>POTENTIAL FOR OCCURRENCE</i>
MAMMALS			
<i>Antrozous pallidus</i> pallid bat	--;SSC	Roosts in rock outcrops, hollow trees, abandoned mines, barns, and attics.	Not expected. This species may pass through the Project site but because typical habitat types do not occur in the Project site and suitable roosts are also absent, it is not expected to occur.
<i>Lasionycteris noctivagans</i> silver-haired bat	--;--	Roosts in abandoned woodpecker holes, under bark, and occasionally in rock crevices. It forages in open wooded areas near water features.	Will not occur. Suitable forest and riparian habitat do not occur in the Project site.
<i>Lasiurus cinereus</i> hoary bat	--;--	Prefer older large leaf trees such as cottonwoods, willows, and fruit/nut trees for daytime roosts. Often found in association with riparian corridors. Need open spaces to forage.	Will not occur. Suitable forest habitat does not occur in the Project site.
<i>Lasiurus blossevillii</i> Western red bat	--;SSC	Prefers edges that have trees for roosting as well as open areas. Requires water. Feeds on a multitude of insects. Roosts primarily in trees and sometimes in shrubs but less often. Roost 2-40 ft above the ground.	Not expected. This species may pass through the Project site but because typical habitat types do not occur in the Project site and suitable roosts are also absent, it is not expected to occur.
<i>Taxidea taxus</i> American badger	--;SSC	This species prefers dry open fields, grasslands, and pastures. From high alpine meadows to sea level.	Will not occur. Suitable habitat does not occur in the Project site and the Project site is regularly cultivated and disturbed in association with farming activities.
<i>Myotis yumanensis</i> Yuma myotis	--;--	Range from juniper and riparian woodlands to the desert near open water sources. Found near rivers, streams, ponds, etc. Temperate and terrestrial habitats.	Not expected. This species may pass through the Project site but because typical habitat types do not occur in the Project site and suitable roosts are also absent, it is not expected to occur.
BIRDS			
<i>Agelaius tricolor</i> tricolored blackbird	--;CE	Colonial nester in cattails, bulrush, or blackberries associated with wetland or drainage habitats. Also need foraging areas such as grasslands or agricultural pastures.	May occur. This species may pass through or forage within the Project site but suitable nesting habitat for this species does not occur within the Project site or in the surrounding vicinity. There is one documented occurrence within five miles of the Project site (CDFW 2023).
<i>Ammodramus savannarum</i> Grasshopper sparrow	--;SSC	Prefer open grasslands with barren ground for foraging. Tend to be found in areas with vegetation and scrub cover	Will not occur. Suitable nesting or foraging habitat for this species is not present in the Project site. There is one documented occurrence within five miles of the Project site (CDFW 2023).

3.4 BIOLOGICAL RESOURCES

<i>ANIMAL</i>	<i>STATUS (FED;CA)</i>	<i>HABITAT ASSOCIATION</i>	<i>POTENTIAL FOR OCCURRENCE</i>
		especially in grasslands and prairies.	
<i>Athene cunicularia</i> burrowing owl	--;SSC	Nests in abandoned ground squirrel burrows associated with open grassland habitats. Found in areas with sparse vegetation and few trees.	High. The Project site contains suitable nesting and foraging habitat for this species. Small mammal burrows, rubble piles, culverts, and other structures were observed in the Project site and are suitable nesting sites for this species, and suitable foraging habitat occurs throughout the Project site. No sign of burrowing owl presence (feathers, whitewash, pellets, etc.) was observed in the Project site during the survey. There are thirteen documented occurrences within five miles of the Project site and one documented nesting location approximately 375 feet from the Project site (CDFW 2023).
<i>Buteo Swainsoni</i> Swainson's hawk	--;CT	Nests in tall cottonwoods, valley oaks or willows. Forages in fields, cropland, irrigated pasture, and grassland often near riparian corridors.	High. The entire Project site contains suitable foraging habitat for this species and suitable nest trees border the Project site and are also present surrounding the Project site. There are 131 documented occurrences within five miles of the Project site and two documented nest trees adjacent to the Project site (CDFW 2023).
<i>Charadrius alexandrinus nivosus</i> western snowy plover	FT;SSC	Sandy beaches, salt pond levees and shores of large alkali lakes with friable sandy or gravelly soils. Large sandy rivers and lakes with sparse vegetation.	Will not occur. Suitable habitat for this species does not occur in the Project site.
<i>Ardea alba</i> great egret	MBTA;--	Colonial nester in large trees. Rookery sites located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes.	Will not occur. There is no suitable rookery habitat within the Project site. This species could occur while foraging but because rookery habitat is absent from the Project site, it is not anticipated to be impacted by the proposed Project. One documented occurrence within five miles of the Project site (CDFW 2023).
<i>Laterallus jamaicensis coturniculus</i> California black rail	--/CT (FP)	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Will not occur. Marsh habitat does not occur in the Project site and the Project site is outside of the current known range of this species.
<i>Circus cyaneus</i> Northern harrier	--;SSC	Found mostly in open habitats. Reside in fields, savannas, meadows, marshes, prairies and deserts. The largest populations tend to be in dense and low vegetative areas.	Present. This species was observed foraging in the Project site during the field survey on February 14, 2023. The Project site does not contain suitable nesting habitat for this species but suitable foraging habitat is present throughout.
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	FT;CE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, w/	Will not occur. Riparian forest habitat does not occur in or near the Project site. There is one documented occurrence within five miles of the Project site (CDFW 2023).

ANIMAL	STATUS (FED;CA)	HABITAT ASSOCIATION	POTENTIAL FOR OCCURRENCE
		lower story of blackberry, nettles, or wild grape.	
<i>Elanus leucurus</i> white-tailed kite	--;FP	Nests in riparian corridors along streams and rivers, and forages in nearby grasslands and fields.	High. The entire Project site contains suitable foraging habitat for this species and suitable nest trees border the Project site and are also present adjacent to the Project site. There is one documented occurrence within five miles of the Project site (CDFW 2023).
<i>Melospiza melodia</i> song sparrow ("Modesto" population)	--;SSC	Emergent freshwater marshes dominated by tules and cattails as well as riparian willow thickets. Nest in riparian forests of valley oak with a sufficient understory of blackberry, along vegetated irrigation canals and levees, and in recently planted valley oak restoration sites.	Not expected. The Project site does not contain dense, emergent vegetation and lacks suitable aquatic habitats. This species may pass through the Project site but is not expected to be impacted by the proposed Project due to a lack of suitable nesting habitat.
AMPHIBIANS & REPTILES			
<i>Ambystoma californiense</i> California tiger salamander	FT;CT	Breeds in ponds or other deeply ponded wetlands, and uses gopher holes and ground squirrel burrows in adjacent grasslands for upland refugia/foraging.	Will not occur. Suitable habitat does not occur in the Project site. Aquatic habitats within the Project site are agricultural drainage ditches that appear to be altered regularly in association with crop rotation and do not consistently hold water. Suitable upland habitat is also lacking from the Project site and the Project site receives regular disturbance in association with farming activities. There is one documented occurrence within five miles of the Project site (CDFW 2023).
<i>Emys marmorata</i> western pond turtle	--;SSC	Occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation in woodlands, grasslands, and open forests.	Not expected. Agricultural ditches within the Project site appear to be regularly altered in association with crop rotation and do not consistently hold water. The ditches also lack essential habitat components for this species. Although not expected, this species may utilize the ditches within the Project site during dispersal to/from more suitable habitat outside of the Project site. Several canals and ponds are visible on aerial imagery in the vicinity of the Project site that may contain suitable habitat for this species. There is one documented occurrence within five miles of the Project site (CDFW 2023).
<i>Rana boylei</i> pop. 1 foothill yellow-legged frog - north coast DPS	--;SSC	Creeks or rivers in woodland, forest, mixed chaparral, and wet meadow habitats with rock and gravel substrate and low overhanging vegetation along the edge. Usually found near riffles with rocks and sunny banks nearby.	Will not occur. Suitable aquatic habitat does not occur in the Project site and the Project site is outside of this species' known range.
<i>Spea hammondi</i> western spadefoot	--;SSC	This species is found in the Sierra Nevada foothills, Central Valley, Coast Ranges, and coastal counties in southern California. Its favored breeding habitats	Will not occur. Suitable habitat does not occur in the Project site. Aquatic habitats within the Project site are agricultural drainage ditches that appear to be altered regularly in association with crop rotation and do not consistently hold water.

3.4 BIOLOGICAL RESOURCES

<i>ANIMAL</i>	<i>STATUS (FED;CA)</i>	<i>HABITAT ASSOCIATION</i>	<i>POTENTIAL FOR OCCURRENCE</i>
		include shallow streams with riffles and seasonal wetlands, such as vernal pools in annual grasslands and oak woodlands. They spend a significant amount of their life cycle in burrows up to 3 feet below the ground surface.	Suitable upland habitat is also lacking from the Project site and the Project site receives regular disturbance in association with farming activities.
<i>Thamnophis gigas</i> giant garter snake	FT;CT	Rivers, canals, irrigation ditches, rice fields, and other aquatic habitats with slow moving water and heavy emergent vegetation.	Will not occur. Suitable habitat is not present in the Project site. Agricultural ditches within the Project site appear to be regularly altered in association with crop rotation and do not consistently hold water. The ditches also lack essential habitat components for this species. The only occurrence within five miles of the Project site is from 1987 and occurs along Putah Creek which is not hydrologically connected to the Project site. There is one documented occurrence within five miles of the Project site (CDFW 2023).
FISH & MOLLUSKS			
<i>Spirinchus thaleichthys</i> longfin smelt	FC;CT	Euryhaline, nektonic, and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 ppt, but can be found in completely freshwater to almost pure seawater. They spend their adult life in bays, estuaries, and nearshore coastal areas, and migrate into freshwater rivers to spawn.	Will not occur. Suitable aquatic habitat does not occur in the Project site.
<i>Oncorhynchus mykiss irideus</i> steelhead - Central Valley DPS	FT;--	Populations in the Sacramento and San Joaquin Rivers and their tributaries. Free of heavy sedimentation with adequate flow and cool, clear water. Gravel that is between 0.5 to 6.0 inches in diameter, dominated by 2 to 3-inch gravel. Escape cover such as logs, undercut banks, and deep pools for spawning adults.	Will not occur. Suitable aquatic habitat does not occur in the Project site.
<i>Hypomesus transpacificus</i> Delta smelt	FT;CE	Occurs in estuary habitat in the Delta where fresh and brackish water mix in the salinity range of 2–7 parts per thousand.	Will not occur. Suitable aquatic habitat does not occur in the Project site.
<i>Acipenser medirostris</i> pop. 1 green sturgeon - southern DPS	FT;--	Spawning site fidelity. Non-spawning adults occupy marine/estuarine waters. Delta Estuary is important for rearing juveniles. Spawning occurs primarily in cool (11-15 C) sections of mainstem rivers in deep pools (8-9 meters) with substrate containing small to	Will not occur. Suitable aquatic habitat does not occur in the Project site.

ANIMAL	STATUS (FED;CA)	HABITAT ASSOCIATION	POTENTIAL FOR OCCURRENCE
		medium sized sand, gravel, cobble, or boulder.	
<i>Gonidea angulate</i> western ridged mussel	--;--	Primarily creeks and rivers and less often lakes. Originally in most of state, now extirpated from Central and Southern California.	Will not occur. Suitable aquatic habitat for this species does not occur in the Project site.
INVERTEBRATES			
<i>Branchinecta conservatio</i> Conservancy fairy shrimp	FE;--	Vernal pools or other seasonal wetlands.	Will not occur. Suitable habitat types for this species do not occur in the Project site.
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	FT;--	Vernal pools or other seasonal wetlands. Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County. Isolated populations also in Riverside County.	Will not occur. Suitable habitat types for this species do not occur in the Project site. Two documented occurrences within five miles of the Project site (CDFW 2023).
<i>Branchinecta mesovallensis</i> midvalley fairy shrimp	--;--	Vernal pools or grass-bottomed swales ranging from 4 to 660 square feet.	Will not occur. Suitable habitat types for this species do not occur in the Project site.
<i>Danaus Plexippus</i> Monarch	FC;--	Overwintering populations of monarch butterflies roost in wind protected tree groves, especially Eucalyptus spp., and species of pine or cypress with nectar and water sources nearby. Winter roost sites extend along the coast from Mendocino County to Baja California. As caterpillars, monarchs feed exclusively on the leaves of milkweed (<i>Asclepias</i> sp.) (Nial et al. 2019 and USFWS 2020). Monarch butterfly migration routes pass east over the Sierra Nevada in the fall and back to the California coast in the spring. The overwintering population is located along the Coast while summer breeding areas occur in interior California and North America with spring breeding areas located further east (USFWS 2020).	Not expected. The Project site is outside of the winter roost range and does not contain suitable roosting habitat. Monarch butterflies may pass through the Study Area during migration but are not expected to be impacted by the Project.
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	FT;--	Dependent upon elderberry plant (<i>Sambucus mexicana</i>) as primary host species. Riparian and oak savanna habitats with elderberry shrubs; elderberries are the host plant. Stream side habitats below 3,000 feet throughout the Central Valley.	Will not occur. Elderberry shrubs do not occur in the Project site. One documented occurrence within five miles of the Project site (CDFW 2023).
<i>Lepidurus packardi</i>	FE;--	Vernal pools and ephemeral stock ponds. Shasta County south to Merced County.	Will not occur. Suitable habitat types for this species do not occur in the Project site.

3.4 BIOLOGICAL RESOURCES

<i>ANIMAL</i>	<i>STATUS (FED;CA)</i>	<i>HABITAT ASSOCIATION</i>	<i>POTENTIAL FOR OCCURRENCE</i>
vernal pool tadpole shrimp			
<i>Lindriella occidentalis</i> California lindriella	--;--	Occur on most land forms and soil types supporting vernal pools. Tend to be in deeper pools and tolerate a wider range of water temperatures.	Will not occur. Suitable habitat types for this species do not occur in the Project site.
<i>Bombus pensylvanicus</i> American bumble bee	--;--	Long-tongued; forages on a wide variety of flowers including vetches (<i>Vicia</i>), clovers (<i>Trifolium</i>), thistles (<i>Cirsium</i>), sunflowers (<i>Helianthus</i>), etc. Nests above ground under long grass or underground. Queens overwinter in rotten wood or underground.	Not expected. Grassland or scrub habitat is not present in the Project site. Plant species suitable for foraging may occur in the Project site but were not observed during the survey. The Project site has been managed for agriculture and has been subjected to use of herbicides and likely pesticides which are one of the leading causes for decline in bumble bees. Additionally, constant disturbance of soil from agricultural uses is not suitable for underground bee colonies and overwintering queens. This species has been documented in the vicinity of the Project site but is not expected to occur in the Project site based on the conditions described above. There is one documented occurrence within five miles of the Project site (CDFW 2023).
<i>Myrmosula pacifica</i> Antioch multilid wasp	--;--	Interior dunes	Will not occur. Interior dunes do not occur in the Project site. Interior dunes do not occur in the Project site.
<i>Andrena blennospermatis</i> Blennosperma vernal pool andrenid bee	--;--	This bee is oligolectic on vernal pool <i>Blennosperma</i> . Bees nest in the uplands around vernal pools.	Will not occur. Vernal pools do not occur in or adjacent to the Project site.
<i>Bombus crotchii</i> Crotch bumble bee	--;CC	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	Not expected. Grassland or scrub habitat is not present in the Project site. Plant species suitable for foraging may occur in the Project site but were not observed during the survey. The Project site has been managed for agriculture and has been subjected to use of herbicides and likely pesticides which are one of the leading causes for decline in bumble bees. Additionally, constant disturbance of soil from agricultural uses is not suitable for underground bee colonies and overwintering queens. This species has been documented in the vicinity of the Project site but is not expected to occur in the Project site based on the conditions described above. There is one documented occurrence within five miles of the Project site (CDFW 2023).
<i>Elaphrus viridis</i> Delta green ground beetle	FT;--	Restricted to the margins of vernal pools in the grassland area between Jepson Prairie and Travis Air Force Base (AFB). Prefers the sandy mud substrate where it slopes gently into the water, with low-growing vegetation, 25-100% cover.	Will not occur. The Project site does not contain vernal pool or grassland habitat and is outside of the current known range of this species.

<i>ANIMAL</i>	<i>STATUS (FED;CA)</i>	<i>HABITAT ASSOCIATION</i>	<i>POTENTIAL FOR OCCURRENCE</i>
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	--;--	Aquatic.	Will not occur. Suitable aquatic habitat and riprap or levees do not occur in the Project site.
<i>Cicindela hirticollis abrupta</i> Sacramento Valley tiger beetle	--;--	Sandy floodplain habitat in the Sacramento Valley. No beetles located during intensive 2001-2004 surveys. Requires fine to medium sand, terraced floodplains or low sandy water edge flats.	Will not occur. Sandy floodplain habitat does not occur in the Project site.
<i>Bombus occidentalis</i> western bumble bee	FT;--	Once common and widespread, species has declined precipitously from central CA to southern B.C., perhaps from disease.	Not expected. The Project site is outside of the current known range of this species and suitable habitat types do not occur in the Project site. In addition, the Project site has been managed for agriculture and has been subjected to use of herbicides and likely pesticides which are one of the leading causes for decline in bumble bees. Additionally, constant disturbance of soil from agricultural uses is not suitable for underground bee colonies and overwintering queens.

SOURCE: CDFW CNDDDB, 2023; DE NOVO PLANNING GROUP, 2023; AND BIOLOGICAL RESOURCES ASSESSMENT, HELIX ENVIRONMENTAL PLANNING, 2023.

Abbreviations:

Federal Lists

- FE Federal Endangered
- FT Federal Threatened
- FC Federal Candidate
- FSC USFWS Birds of Conservation Concern
- FPD Federal proposed for delisting
- FPT Federal proposed threatened
- FD Federal delisted
- MBTA Protected by Migratory Bird Treaty Act

State Lists

- CE California Endangered Species
- CT California Threatened
- CD California Delisted
- SSC CDFW Species of Special Concern
- CC State candidate for listing
- FP Fully Protected

3.4.2 REGULATORY SETTING

There are a number of regulatory agencies whose responsibility includes the oversight of the natural resources of the state and nation including the CDFW, USFWS, U.S. Army Corps of Engineers (USACE), and the National Marine Fisheries Service. These agencies often respond to declines in the quantity of a particular habitat or plant or animal species by developing protective measures for those species or habitat type. The following is an overview of the federal, state and local regulations that are applicable to the proposed Project.

FEDERAL

Federal Endangered Species Act

The Federal Endangered Species Act (FESA), passed in 1973, defines an endangered species as any species or subspecies that is in danger of extinction throughout all or a significant portion of its range. A threatened species is defined as any species or subspecies that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Once a species is listed it is fully protected from a “take” unless a take permit is issued by the USFWS. A take is defined as the harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct, including modification of its habitat (16 USC 1532, 50 CFR 17.3). Proposed endangered or threatened species are those species for which a proposed regulation, but not a final rule, has been published in the Federal Register.

Migratory Bird Treaty Act

To kill, possess, or trade a migratory bird, bird part, nest, or egg is a violation of the Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., §703, Supp. I, 1989), unless it is in accordance with the regulations that have been set forth by the Secretary of the Interior.

STATE

Fish and Game Code §2050-2097 - California Endangered Species Act

The California Endangered Species Act (CESA) protects certain plant and animal species when they are of special ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. CESA established that it is State policy to conserve, protect, restore, and enhance endangered species and their habitats.

CESA was expanded upon the original Native Plant Protection Act and enhanced legal protection for plants. To be consistent with Federal regulations, CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals into the Act as threatened species, but did not do so for rare plants. Thus, there are three listing categories for plants in California: rare, threatened, and endangered. Under State law, plant and animal species may be formally designated by official listing by the California Fish and Wildlife Commission.

Fish and Game Code §1900-1913 California Native Plant Protection Act

In 1977 the State Legislature passed the Native Plant Protection Act (NPPA) in recognition of rare and endangered plants of the state. The intent of the law was to preserve, protect, and enhance endangered plants. The NPPA gave the California Fish and Wildlife Commission the power to designate native plants as endangered or rare, and to require permits for collecting, transporting, or selling such plants. The NPPA includes provisions that prohibit the taking of plants designated as "rare" from the wild, and a salvage mandate for landowners, which requires notification of the CDFW 10 days in advance of approving a building site.

Fish and Game Code §3503, 3503.5, 3800 - Predatory Birds

Under the California Fish and Game Code, all predatory birds in the order Falconiformes or Strigiformes in California, generally called “raptors,” are protected. The law indicates that it is unlawful to take, possess, or destroy the nest or eggs of any such bird unless it is in accordance with the code. Any activity that would cause a nest to be abandoned or cause a reduction or loss in a reproductive effort is considered a take. This generally includes construction activities.

Public Resources Code § 21000 - California Environmental Quality Act

The California Environmental Quality Act (CEQA) identifies that a species that is not listed on the federal or state endangered species list may be considered rare or endangered if the species meets certain criteria. Under CEQA public agencies must determine if a project would adversely affect a species that is not protected by FESA or CESA. Species that are not listed under FESA or CESA, but are otherwise eligible for listing (i.e. candidate, or proposed) may be protected by the local government until the opportunity to list the species arises for the responsible agency.

Species that may be considered for review are included on a list of “Species of Special Concern,” developed by the CDFW. Additionally, the California Native Plant Society (CNPS) maintains a list of plant species native to California that have low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. List 1A contains plants that are believed to be extinct. List 1B contains plants that are rare, threatened, or endangered in California and elsewhere. List 2 contains plants that are rare, threatened, or endangered in California, but more numerous elsewhere. List 3 contains plants where additional information is needed. List 4 contains plants with a limited distribution.

Natural Community Conservation Planning Act

The Natural Community Conservation Planning Act provides long-term protection of species and habitats through regional, multi-species planning before the special measures of the CESA become necessary.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act authorizes the SWRCB to regulate state water quality and protect beneficial uses.

LOCAL

Solano Multispecies Habitat Conservation Plan

The Solano Multispecies Habitat Conservation Plan (Solano HCP) is currently in the draft stages and is not a final document or plan as of April 2024. If the Solano HCP becomes final prior to Project initiation, the Project proponent may apply for coverage under the Solano HCP.

The proposed Solano HCP establishes a framework for complying with State and Federal endangered species regulations while accommodating future urban growth, development of infrastructure, and ongoing operations and maintenance activities associated with flood control, irrigation facilities, and other public infrastructure undertaken by or under the permitting authority/control of the Plan Participants within Solano County. The City of Dixon is a voluntary participant in the proposed Solano HCP.

City of Dixon Northeast Quadrant Specific Plan (NEQSP)

The NEQSP contains the following policies that are relevant to biological resources:

RESOURCE MANAGEMENT ELEMENT

Wetlands

1. Any wetlands determined to be subject to state or federal regulation will be subject to review by the appropriate responsible federal and state agencies. Requirements of any permit issued by state and federal agencies will be fully implemented.
2. Any enhancement/compensation program required pursuant to state or federal permits will be the responsibility of the property owner(s). Where excavation is utilized to create or enhance wetlands, excavated soils should be reshaped to form gentle contours and then planted with appropriate native species.
3. If the removal or total destruction of the wetland area is unavoidable as a result of the project, after examination of all feasible avoidance alternatives, it may be required that the impacted wetland be mitigated at a 1:1 ratio so that no net loss of wetland habitat occurs. On-site mitigation is preferable, although off-site mitigation may be allowed. The Community Development Director in consultation with the California Department of Fish & Wildlife (CDFW) shall define a set of conditions applicable to wetland mitigation for approval on any affected development within the plan area.
4. Implementation of both a short-term and long-term monitoring program to ensure the success of the required appropriate permits and EIR mitigation measures is required. The property owner(s) will be responsible for required monitoring.
5. If publicly accessible, wetland areas should be limited to passive recreation activities compatible with the primary purpose of wetland habitat restoration. In general access should be controlled or restricted.
6. Prior to construction (including roadway construction, grading, and the movement of material or machinery and equipment) approval of improvement plans, or the issuance of any permits for adjacent property a chain link fence, or acceptable alternative, shall be installed along the wetland area. The fencing should not be removed until the completion of construction activity. Written release from the Community Development Department must be received prior to the removal of any fencing.
7. Proposed detention/retention facilities located within or adjacent to wetland preserve areas should be in compliance with appropriate permit requirements.

Sensitive Species

1. Proponents of development applications within the specific plan area shall consult with CDFW regarding the take of an endangered species or its habitat pursuant to the California Endangered Species Act (CESA) and CDFW codes.
2. A breeding survey should be conducted between April and July, prior to construction, to determine if the species nest on-site, if further impacts are a possibility, and to develop appropriate mitigation strategies.

3. The Dixon Community Development Director in consultation with CDFW shall define a set of conditions for approval on any development within the plan area consistent with the County Habitat Conservation Plan, if such a plan is in effect at that time. Such conditions shall be applied by the Planning Commission and City Council, in the City review and entitlement process. Such conditions shall be enforced by the Community Development Department and the Engineering Department, during the review and approval of any land use or improvement plans pursuant to the land use entitlement.

Trees and Orchards

1. Development plans shall identify the location, species, size and general condition of all existing trees on site, except trees within an orchard. Existing trees should be incorporated in the development plan where feasible.
2. Signs, ropes, cables, or other similar appendages should not be attached to trees designated for preservation unless specifically required by a certified arborist.
3. No tree identified for preservation in approved plans may be removed or significantly altered without approval by the Dixon Community Development Department.
4. Tree preservation and site development policies set forth herein should be incorporated into Covenants, Conditions and Restrictions (CC&Rs) for all projects within the plan area to ensure that subsequent property owners are aware of their obligation to protect any trees designated for preservation.
5. All development projects should be designed so as to avoid:
 - compaction of the tree root zone,
 - discharge of concentrated run-off to the root zone of trees,
 - placement of parking or walkways across the root zone, and
 - heat damage or scorching of trees from highly reflective building materials or paving.

Dixon 2040 General Plan

The City of Dixon General Plan contains the following policies that are relevant to biological resources:

NATURAL ENVIRONMENT ELEMENT

Policy NE-1.1 Preserve the natural open space and agricultural lands that surround Dixon through continued leadership in cross-jurisdictional conservation initiatives such as the Vacaville-Dixon Greenbelt and the Davis-Dixon greenbelt.

Policy NE-1.2 Support regional efforts to place additional land under permanent conservation easements and continue to use the Agricultural Land Mitigation Fund to collect development impact fees for the purpose of funding greenbelt expansion.

Policy NE-1.3 Encourage open space preservation through easements, open space designation, or dedication of lands for the purpose of connecting conservation areas, protecting biodiversity, accommodating wildlife movement, and sustaining ecosystems.

3.4 BIOLOGICAL RESOURCES

Policy NE-1.4 Prior to annexing land into the city or expanding the SOI, continue to require agricultural mitigation consistent with the Solano County Local Agency Formation Commission's Standards and Procedures when agricultural lands would be converted to nonagricultural purposes.

Policy NE-1.5 Continue to allow agriculture as an interim use on land within the City that is designated for future urban use.

Policy NE-1.9 Facilitate groundwater recharge in Dixon by encouraging development projects to use Low Impact Development (LID) practices such as bioretention, porous paving, and green roofs, and by encouraging private property owners to design or retrofit landscaped or impervious areas to better capture storm water runoff.

Policy NE-1.11 Support regional habitat conservation efforts, including implementation of the Solano Countywide Multispecies Habitat Conservation Plan.

Policy NE-1.12 Ensure that adverse impacts on sensitive biological resources, including special-status species, sensitive natural communities, sensitive habitat, and wetlands are avoided or mitigate to the greatest extent feasible as development takes place.

Policy NE-1.13 In areas where development (including trails or other improvements) has the potential for adverse effects on special-status species, require project proponents to submit a study conducted by a qualified professional that identifies the presence or absence of special-status species at the proposed development site. If special-status species are determined by the City to be present, require incorporation of appropriate mitigation measures as part of the proposed development prior to final approval.

Policy NE-1.14 Protect the nests of raptors and other birds when in active use, as required by State and federal regulations. In new development, avoid disturbance to and loss of bird nests in active use by scheduling vegetation removal and new construction during the non-nesting season or by conducting a pre-construction survey by a qualified biologist to confirm nests are absent or to define appropriate buffers until any young have successfully fledged the nest.

Policy NE-1.15 Recognize the importance of the urban forest to the natural environment in Dixon and expand the tree canopy on public and private property throughout the community.

Policy NE-1.17 Minimize removal of, and damage to, trees due to construction-related activities and continue to require replacement of trees, including street trees lost to new development.

Policy NE-1.18 Require new development to provide and maintain street trees suitable to local climatic conditions.

3.4.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on biological resources if it will:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

METHODOLOGY

The methodology for the Biological Resources Assessment and Aquatic Resources Delineation are summarized below.

Biological Resources Assessment

Available information pertaining to the natural resources of the region was reviewed prior to conducting the field survey. The following published information was reviewed for the Biological Resources Assessment:

- CDFW. 2023. CNDDDB; For: Dixon, Winters, Merritt, Davis, Saxon, Liberty Island, Dozier, Elmira, and Allendale USGS 7.5-minute series quadrangles, Sacramento, CA. Accessed (January 31, 2023);
- CNPS. 2023. Inventory of Rare and Endangered Plants (online edition, v8-03 0.45) For: Dixon, Winters, Merritt, Davis, Saxon, Liberty Island, Dozier, Elmira, and Allendale USGS 7.5-minute series quadrangles, Sacramento, CA. Accessed (January 31, 2023);
- U.S. Department of Agriculture (USDA), NRCS. 1993. Solano County, California. USDA, NRCS, in cooperation with the Regents of the University of California (Agricultural Experiment Station);
- USDA, NRCS. 2023. Web Soil Survey. Available at: <http://websoilsurvey.sc.egov.usda.gov>. Accessed (January 31, 2023);
- U.S. Fish and Wildlife Service (USFWS). 2023. Information for Planning and Consultation (IPaC) Dixon 257. Accessed (January 31, 2023); and
- USGS. 2021. Dixon, California. 7.5-minute series topographic quadrangle. United States Department of Interior.

3.4 BIOLOGICAL RESOURCES

Prior to conducting biological field surveys, existing information concerning known habitats and special-status species that may occur in the Project site was reviewed. The results of the database query and a five-mile radius CNDDDB query for the Project site are included in Appendix A of Appendix D. Biological field surveys were conducted on February 2, 2023 by HELIX biologist Patrick Martin and on February 14, 2023 by HELIX biologist Christine Heckler. The weather during the field surveys was mostly sunny with an average temperature of 55°F. The Project site was systematically surveyed on foot to ensure total search coverage, with special attention given to portions of the Project site with the potential to support special-status species and sensitive habitats. Binoculars were used to further extend site coverage and identify species observed. All plant and animal species observed were recorded, and all biological communities occurring on-site were characterized. All resources of interest were mapped with Global Positioning System (GPS)-capable tablets equipped with GPS receivers running ESRI Field Maps for ArcGIS with sub-meter accuracy.

Following the field survey, the potential for each species identified in the database query to occur within the Project site was determined based on the site survey, soils, habitats present within the Project site, and species-specific information, as shown in Appendix B of Appendix D. Species observed within the Project site during the survey are included in Appendix C of Appendix D, and photographs taken during the survey are included in Appendix D of Appendix D.

Aquatic Resources Delineation

The Aquatic Resources Delineation was prepared per the Regulatory Division of the Sacramento District, USACE minimum standards. In addition, the following manuals and guidance were used to delineate waters of the U.S. and wetlands that are potentially subject to USACE jurisdiction under Section 404 of the CWA:

- Corps of Engineers Wetlands Delineation Manual (USACE 1987);
- Regional Supplement to the Corps Wetland Delineation Manual: Arid West (Version 2.0) (USACE 2008);
- A Field Guide to the Identification of the OHWM in the Arid West Region of the Western United States, A Delineation Manual (Lichvar and Mccolley 2008);
- Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al. 1979).

Before conducting the field delineation, the following information sources were reviewed:

- Aerial imagery of the Project site and the vicinity (Google 2021);
- NRCS soil survey maps and unit descriptions, Web Soil Survey, Sacramento County (NRCS 2021);
- USFWS National Wetlands Inventory (NWI) - Wetlands Online Mapper (USFWS 2021).

DELINEATION SURVEY AND FIELD CONDITIONS

Biologists Krystal Pulsipher and Owen Routt conducted the aquatic resources delineation on Friday, March 26, 2021. The site assessment consisted of walking meandering transects throughout the Project site to identify wetlands or waterways potentially under the jurisdiction of the USACE. Where

wetlands were suspected to be present based on aerial signatures and conditions observed in the field, soil pits were excavated to a depth of approximately 18 inches or until an impermeable layer was reached. The three wetland criteria (hydrophytic vegetation, hydric soils, and wetland hydrology) were evaluated the USACE protocol for the Arid West. The locations of the soil pits and wetland features were noted on aerial images of the Project site. Mapped soil types in the Project site were determined using the NRCS Web Soil Survey, Custom Soil Resource Report. A standard Munsell® Soil Color Chart was used to determine soil matrix and mottle colors (Kollmorgen Instruments Company 2000) in the field. Where present, the OHWM for all potential non-wetland waters of the U.S. present were delineated. Plant community names follow A Manual of California Vegetation: Second Edition, where applicable. Plant nomenclature followed Jepson eFlora. The USACE National Wetland Plant List, version 3.4, was used to determine the status of observed plants as wetland indicator species. Datasheets are presented in Appendix A of Appendix C. Site photographs are presented in Appendix B of Appendix C.

MAPPING

Wetland boundaries within the Project site were surveyed and mapped using an EOS Arrow 100 GPS technology receiver paired with the EOS Tools Pro and ESRI ArcMap Collector applications. This GPS is capable of real-time differential correction and sub-meter accuracy. The GPS data were downloaded through ArcGIS Online and converted into ESRI shapefile format. The geographic coordinate system used to reference the data was Universal Transverse Mercator (UTM–Zone 10), North American Datum (NAD83) in meters.

Each wetland was assessed by determining the wetland feature/upland edges and by observing the mandatory wetland indicators at selected points along each transect as defined by the 1987 Manual, the Regional Supplemental Manual, and Guide to OHWM. Potential wetland boundaries were mapped at a level of accuracy of less than one meter. Soil pits were hand-excavated to obtain soil data for wetlands. Data were overlaid on an aerial photograph provided by ESRI ArcGIS World Imagery. The ESRI data and GIS software were used to calculate the acreage of each polygon. Mapping requirements, as set forth by *Updated Map and Drawing Standards for the South Pacific Division Regulatory Program* and the *Minimum Standards for Acceptance of Aquatic Resources Delineation Reports* were followed.

DETERMINATION METHODS

Data for each potential wetland was collected using the *USACE Wetland Determination Data Form – Arid West Region*. Data forms were completed at representative locations to determine whether suspect features qualify as jurisdictional wetlands or other waters of the U.S. (Appendix A of Appendix C). Wetlands were determined based on the presence of the three factors that define wetlands – the presence of dominant hydrophytic vegetation, the presence of hydric soils, and wetland hydrology indicators.

IMPACTS AND MITIGATION

Impact 3.4-1: Implementation of the proposed Project would not result in direct or indirect effects on special-status invertebrate species (Less than Significant)

Special-status invertebrates that occur within the 9-quad region for the Project site include: Conservancy fairy shrimp, vernal pool fairy shrimp, midvalley fairy shrimp, valley elderberry longhorn beetle, vernal pool tadpole shrimp, California linderiella, American bumble bee, Antioch multilid wasp, Blennosperma vernal pool andrenid bee, Crotch bumble bee, Delta green ground beetle, Ricksecker's water scavenger beetle, Sacramento Valley tiger beetle, and western bumble bee. Each of these is discussed below:

Vernal Pool Branchiopods: The record search lists several occurrences of the federally endangered vernal pool tadpole shrimp (*Lepidurus packardi*) and Conservancy fairy shrimp (*Branchinecta conservatio*), the threatened vernal pool fairy shrimp (*Branchinecta lynchi*), and the non-listed California linderiella (*Linderiella occidentalis*) and midvalley fairy shrimp (*Branchinecta mesovallensis*) as occurring within the nine-quad region for the Project site. These species exclusively inhabit vernal pools or other seasonally ponded wetlands that sustain inundation during the winter before drying in the late spring. The Project site does not provide suitable habitat for this species.

Valley Elderberry Longhorn Beetle: The valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) is a federally threatened insect that is dependent upon the elderberry plant (*Sambucus* sp.) as a primary host species. Elderberry shrubs are a common component of riparian areas throughout the Sacramento Valley region. As noted previously in Table 3.4-4, elderberry shrubs are not located on site. The Project site does not provide suitable habitat for this species.

Crotch Bumble Bee: The crotch bumble bee (*Bombus crotchii*) is a State Candidate Endangered species which occurs from coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera for this species include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.

Grassland or scrub habitat for this species is not present in the Project site. Plant species suitable for foraging may occur in the Project site but were not observed during the survey. The Project site has been managed for agriculture and has been subjected to use of herbicides and likely pesticides which are one of the leading causes for decline in bumble bees. Additionally, constant disturbance of soil from agricultural uses is not suitable for underground bee colonies and overwintering queens. This species has been documented in the vicinity of the Project site but is not expected to occur in the Project site based on the conditions described above. As such, this species is not expected to be present on-site.

Delta Green Ground Beetle: The Delta green ground beetle (*Elaphrus viridis*) is a Federally Threatened species. This species is currently thought to be restricted to the margins of vernal pools

in the grassland area between Jepson Prairie and Travis AFB. This species appears to prefer sandy mud substrate where it slopes gently into water.

The Project site does not contain vernal pool or grassland habitat and is outside of the current known range of this species. This species will not occur on-site.

Western Bumble Bee: The western bumble bee (*Bombus occidentalis*) is a State Candidate Endangered species which occurs in meadows and grasslands with an abundance of floral resources. This species is a generalist forager and have been reported visiting a wide variety of flowering plants such as *Melilotus* spp., *Cirsium* spp., *Trifolium* spp., *Centaurea* spp., *Eriogonum* spp., and *Chrysothamnus* spp. The flight period for queens in California is from early February to late November, peaking in late June and late September. New queens hibernate over the winter and initiate a new colony the following spring. Rare throughout its range and in decline west of the Sierra Nevada crest. The most current known range of this species is limited to areas near the Klamath and northern Coast Range mountains as well as mountain areas in Shasta, Plumas, Sierra, Nevada, Placer, El Dorado, Lassen, Amador, Alpine, and Calaveras counties.

The Project site is outside of the current known range of this species. In addition, the Project site has been managed for agriculture and has been subjected to use of herbicides and likely pesticides which are one of the leading causes for decline in bumble bees. Additionally, constant disturbance of soil from agricultural uses is not suitable for underground bee colonies and overwintering queens. Although suitable foraging habitat may occur on-site, because this species is considered rare throughout its range, it is not expected to occur on the Project site.

Other Insects: There are three other insects that are not formally listed, special-status species, but are included in the CNDDDB search results. These include American bumble bee, Antioch multilid wasp, *Blennosperma* vernal pool andrenid bee, Ricksecker's water scavenger beetle, and Sacramento Valley tiger beetle. While these species are documented within the nine-quad region for the Project site, they are not documented on the Project site. The habitat present on the Project site is not ideal natural habitat for these species and none are believed to be present.

Conclusion: As noted previously, the Project site is in an agricultural setting and is currently used to cultivate various row crops. Dirt access roads and ditches occur throughout the Project site along the perimeters of the fields, and aerial imagery also indicates the ditches are created, moved, and filled as crops are rotated and cultivated. According to the CNDDDB records search, there are no documented or observed special-status invertebrate species on the Project site. Additionally, appropriate habitat for these special-status invertebrates were not observed within the Project site during the field survey and none are expected to be affected by the proposed Project. Overall, the proposed Project would have a **less-than-significant** impact on special-status invertebrate species.

MITIGATION MEASURES

None Required.

Impact 3.4-2: Implementation of the proposed Project would not result in direct or indirect effects on special-status reptile and amphibian species (Less than Significant)

Special-status reptiles and amphibians that occur within the nine-quad region for the Project site include: California tiger salamander, western pond turtle, foothill yellow-legged frog - north coast DPS, western spadefoot, and giant garter snake. Each of these is discussed below:

California Tiger Salamander: The California tiger salamander (*Ambystoma californiense*) is a federal and California threatened species. It typically breeds in fish-free seasonal or permanent ponds associated with grassland communities. California tiger salamander may also breed in deeper ponded vernal pools, seasonal wetlands and/or other seasonal pools within swales or channels. California tiger salamander spends the majority of its life cycle below ground in ground squirrel or pocket gopher burrows in grasslands situated adjacent to potential breeding sites.

Forty-seven units of critical habitat, or habitat that has been deemed as essential to the survival and recovery of the California tiger salamander, were proposed by the USFWS on August 10, 2004. The 5,699-acre Unit 2 (Jepson Prairie Unit) is located approximately 17 miles southwest of the Project site.

Suitable habitat does not occur in the Project site. Aquatic habitats within the Project site are agricultural drainage ditches that appear to be altered regularly in association with crop rotation and do not consistently hold water. Suitable upland habitat is also lacking from the Project site, and the Project site receives regular disturbance in association with farming activities. As such, this species will not occur on-site.

Western Pond Turtle: The western pond turtle (*Emys marmorata*) is a California species of special concern. Its favored habitats include streams, large rivers and canals with slow-moving water, aquatic vegetation, and open basking sites. Although the turtles must live near water, they can tolerate drought by burrowing into the muddy beds of dried drainages. This species feeds mainly on invertebrates such as insects and worms, but will also consume small fish, frogs, mammals and some plants. Western pond turtle predators include raccoons, coyotes, raptors, weasels, large fish, and bullfrogs. This species breeds from mid to late spring in adjacent open grasslands or sandy banks.

Agricultural ditches within the Project site appear to be regularly altered in association with crop rotation and do not consistently hold water. The ditches also lack essential habitat components for this species. Although not expected, this species may utilize the ditches within the Project site during dispersal to/from more suitable habitat outside of the Project site. As such, this species is not expected to occur on the Project site.

Foothill Yellow-Legged Frog - North Coast DPS: The foothill yellow-legged frog (*Rana boylei pop. 1*) is a State Species of Special Concern. This distinct population occurs in the northern coast ranges north of the San Francisco Bay Estuary, Klamath Mountains, and Cascade Range including watershed subbasins: Lower Pit, Battle Creek, Thomes Creek, and Big Chico Creek in Lassen, Shasta, Tehama, and Butte counties. This species occurs in rocky, perennial streams, creeks, and rivers, especially in

areas with sunny banks and riffles. Rarely travels far from water. Typically found in forest, chaparral, and woodland habitats.

Suitable aquatic habitat does not occur in the Project site, and the Project site is outside of this species' known range. As such, this species will not occur on-site.

Western Spadefoot: The western spadefoot (*Spea hammondi*) is a State Species of Special Concern. This species occurs in a variety of open habitats including grasslands, coastal sage scrub, chaparral, sandy washes, and playas. Can also be found in valley-foothill woodlands. This species spends the majority of its life underground and typically emerges between October to May to breed. Breeding occurs in vernal pools, depressional wetlands, and sometimes puddles. Breeding sites must remain inundated for at least 30 days for larvae to mature.

Suitable habitat does not occur in the Project site. Aquatic habitats within the Project site are agricultural drainage ditches that appear to be altered regularly in association with crop rotation and do not consistently hold water. Suitable upland habitat is also lacking from the Project site, and the Project site receives regular disturbance in association with farming activities. As such, this species will not occur on-site.

Giant Garter Snake: Giant garter snake (*Thamnophis gigas*) is designated as a federally threatened and state threatened species afforded special protection by USFWS and CDFW. The giant garter snake is generally associated with larger canals, irrigation ditches, and other semi-permanent to permanent aquatic sites with slow moving water and an abundance of emergent vegetation.

Suitable habitat is not present in the Project site. Agricultural ditches within the Project site appear to be regularly altered in association with crop rotation and do not consistently hold water. The ditches also lack essential habitat components for this species. The only occurrence within five miles of the Project site is from 1987 and occurs along Putah Creek which is not hydrologically connected to the Project site. As such, this species will not occur on-site.

Conclusion: Appropriate habitat for these special-status amphibians and reptiles were not observed within the Project site during the field survey and none are expected to be affected by the proposed Project. Overall, the proposed Project would have a **less-than-significant** impact on special-status amphibians and reptiles.

MITIGATION MEASURES

None Required.

Impact 3.4-3: Implementation of the proposed Project would not result in direct or indirect effects on special-status fish and mollusk species (No Impact)

Special-status fish that occur within the nine-quad region for the Project site include: longfin smelt, steelhead - Central Valley DPS, Delta smelt, green sturgeon - southern DPS, and western ridged

mussel. These species require aquatic habitat, which is not present within the Project site. Implementation of the proposed Project would have **no impact** on special-status fish species.

MITIGATION MEASURES

None Required.

Impact 3.4-4: Implementation of the proposed Project, with mitigation, would not result in direct or indirect effects on special-status bird species (Less than Significant with Mitigation)

Special-status birds that occur within the nine-quad region for the Project site include: tricolored blackbird, grasshopper sparrow, burrowing owl, Swainson's hawk, western snowy plover, great egret, California black rail, northern harrier, western yellow-billed cuckoo, white-tailed kite, and song sparrow ("Modesto" population). These species are discussed below:

Tricolored Blackbird: Tricolored blackbirds (*Agelaius tricolor*) are listed as Threatened by CDFW. Tricolored blackbirds nest and seek cover in emergent wetland vegetation and thorny vegetation such as Himalayan blackberry (*Rubus armeniacus*), cattail (*Typha* spp.), willow (*Salix* spp.), and tules (*Scirpus* spp.). The nesting area must be large enough to support a minimum colony of 50 pairs as they are a highly colonial species. As many as 30,000 nests have been recorded in cattail marshes of four hectares or less. This species forages on the ground in croplands, grasslands, flooded land, and edges of ponds for insects. The basic requirements for selecting breeding sites are open accessible water, a protected nesting substrate, including either flooded or thorny or spiny vegetation, and a suitable foraging space providing adequate insect prey within a few miles of the nesting colony.

Tricolored blackbird may forage in the Project site; however, the Project site does not contain suitable nesting habitat for this species. Emergent wetland vegetation and other substrates suitable for nesting do not occur in the Project site. Although suitable nesting habitat is absent, this species may forage within the cropland in the Project site. Suitable breeding sites may also be within a few miles of the Project site and tricolored blackbirds are known to forage in areas a few miles away from a nesting colony. There is one documented occurrence of this species within five miles of the Project site, approximately 4.88 miles away. Based on suitable foraging habitat in the Project site and nearby documented occurrences, tricolored blackbird may occur in the Project site.

Grasshopper Sparrow: Grasshopper sparrows (*Ammodramus savannarum*) are listed by CDFW as a species of special concern due to declining populations in the Great Central Valley of California. They prefer open grasslands with barren ground for foraging, and tend to be found in areas with vegetation and scrub cover especially in grasslands and prairies. There are no CNDDDB records within five miles of the Project site.

Suitable nesting or foraging habitat for this species is not present in the Project site.

Burrowing Owl: Burrowing owl (*Athene cunicularia*) is a ground nesting raptor species that is afforded protection by CDFW as a species of special concern due to declining populations in the Great Central Valley of California. This species occurs in a variety of open habitats, typically

grasslands, desert scrub, agricultural fields, washes, and disturbed areas such as golf courses or vacant lots. Burrows, perch sites, and friable soil are necessary for this species, and areas with low-lying, sparse vegetation are preferred. Burrowing owls may utilize culverts, abandoned pipes, rubble piles, and other artificial structures for nesting if burrows are absent. They are often associated with high densities of burrowing mammals such as prairie dogs and ground squirrels. Breeding pairs stay near a dedicated nesting burrow, while wintering owls may move around and may roost in tufts of vegetation rather than in burrows.

The entire Project site provides suitable habitat for this species. Ground squirrel (*Otospermophilus beecheyi*) burrows were observed within the Project site that provide suitable nesting/refuge habitat, and rubble piles, culverts, and other artificial structures that may also be suitable for this species are also within the Project site. Burrowing owl may forage throughout the Project site and this species is known to occupy agricultural habitats. There are thirteen documented occurrences of this species within five miles of the Project site, with the closest approximately 375 feet from the Project site. One adult and two juveniles were observed at this location indicating it was likely a nesting burrow. Based on suitable habitat in the Project site and the number and proximity of nearby documented occurrences, burrowing owl has a high potential to occur in the Project site. No sign of burrowing owl presence (pellets, whitewash, feathers etc.) was observed in the Project site during the field surveys.

Swainson's Hawk: Swainson's hawk (*Buteo swainsoni*) is a raptor species currently listed as threatened in California by the CDFW. This species is a long-distance migrant with nesting grounds in western North America, and wintering grounds in Mexico and South America. Swainson's hawks typically arrive in the California Central Valley between March and early April to establish breeding territories. Breeding occurs from late March to August, peaking in late May through July (Zeiner et al. 1988-1990). In the Central Valley, Swainson's hawks generally nest in isolated trees, small groves of trees in agricultural land, or in large woodlands next to open grasslands or agricultural fields. This species typically nests near riparian areas; however, it has been known to nest in urban areas as well. In the Central Valley, the most commonly used trees include Fremont's cottonwood (*Populus fremontii*), sycamores (*Platanus spp.*), valley oaks (*Quercus lobata*), walnut (*Juglans spp.*), and occasionally gum trees (*Eucalyptus spp.*), redwood (*Sequoia spp.*) and pine (*Pinus spp.*) (Woodbridge 1998). Nest locations are usually in close proximity to suitable foraging habitats, which include fallow fields, all types of grasslands, irrigated pastures, alfalfa and other hay crops, and low-growing row crops, especially post-harvest when the height of the vegetation is short and easy to observe prey. Swainson's hawks leave their breeding grounds to return to their wintering grounds in late August or early September.

The croplands within the Project site (261.192 acres) provide suitable foraging habitat for this species and suitable nest trees are located adjacent to the Project site and in the surrounding vicinity. There are 131 documented occurrences of this species within five miles of the Project site, and two of those occurrences overlap with the Project site. These two occurrences are documented nest trees from 2005 and 2006. Based on suitable habitat in the Project site and the number and proximity of nearby documented occurrences, Swainson's hawk has a high potential to occur in the Project site. However, it should be noted that if tall-growing crops such as corn are planted within

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the Project site, the portion of the Project site that is planted with corn may be unsuitable for Swainson's hawk foraging. Once the crops reach a certain height, foraging opportunities are minimal for this species. Swainson's hawk can forage in a variety of agricultural settings, including early-stage corn fields, but tall, dense vegetation/crops are typically unsuitable for foraging by this species.

Western Snowy Plover: The western snowy plover (*Charadrius alexandrinus nivosus*) is a federally threatened bird listed by CDFW as a species of special concern. This ground nester is associated with beaches, salt pond levees and shores of large alkali lakes with friable sandy or gravelly soils.

Suitable habitat for this species does not occur in the Project site. As such, this species will not occur on-site.

Great Egret: Great egret (*Ardea alba*) is protected by the MBTA. These species are colonial nesters who inhabit large trees. Rookery sites for this species are typically located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes.

There is no suitable rookery habitat within the Project site. This species could occur while foraging but because rookery habitat is absent from the Project site, it is not anticipated to be impacted by the proposed Project.

California Black Rail: California black rail (*Laterallus jamaicensis coturniculus*) is a State Threatened and Fully Protected species. This species inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays and requires water depths of about one inch that do not fluctuate during the year and dense vegetation for nesting habitat.

Marsh habitat does not occur in the Project site, and the Project site is outside of the current known range of this species. As such, this species will not occur on-site.

Northern Harrier: Northern harrier (*Circus cyaneus*) is listed by CDFW as a species of special concern. This species occurs in a variety of open habitats; typically, large tracts of coastal scrub, grasslands, marsh, riparian scrub, and wetland habitats with low, dense vegetation. This species is also known to occur in agricultural habitats. The northern harrier builds a nest on the ground in thick, emergent wetland vegetation usually at the edge of aquatic habitat.

Northern harrier may forage in the Project site; however, the Project site does not contain suitable nesting habitat for this species. Emergent wetland vegetation does not occur in the Project site and aquatic habitat is also absent. Although suitable nesting habitat is absent, this species may forage within the cropland in the Project site and two northern harriers were observed foraging within the Project site during the field survey on February 14, 2023. There are no documented occurrences of this species within five miles of the Project site; however, this species is not regularly reported to the CNDDDB. Based on suitable foraging habitat in the Project site and observations of this species foraging in the Project site, northern harrier is present in the Project site.

Western Yellow-Billed Cuckoo: The western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) is a federally threatened and California endangered species. This riparian forest nester

is found along the broad, lower flood-bottoms of larger river systems. They nest in riparian jungles of willow, often mixed with cottonwoods, with lower stories of blackberry, nettles, or wild grape.

Riparian forest habitat does not occur in or near the Project site. As such, this species will not occur on-site.

White-Tailed Kite: White-tailed kite (*Elanus leucurus*) is a CDFW fully protected species. This species occurs in a variety of open habitats including grasslands, savannah, oak woodland, riparian woodland, open suburban areas, and agriculture fields. Nesting generally occurs within riparian or edge habitats or in lone trees that are adjacent to foraging habitat. Foraging habitat consists of a variety of open habitats that contain a high rodent population; especially grasslands, pastures, alfalfa fields, and other agricultural crops/fields.

The entire Project site provides suitable foraging habitat for this species and suitable nest trees are located adjacent to the Project site and in the surrounding vicinity. There is one documented occurrence of this species within five miles of the Project site, approximately 4.58 miles away. However, this species is not typically reported to the CNDDDB, and it is a common species in the area. Based on suitable habitat in the Project site and nearby documented occurrences, white-tailed kite has a high potential to occur in the Project site. However, it should be noted that if tall-growing crops such as corn are planted within the Project site, that area of Project site may be unsuitable for foraging once the crops reach a certain height that limits the success of foraging. White-tailed kites can forage in a variety of agricultural settings, including early-stage corn fields, but tall, dense vegetation/crops are typically unsuitable for foraging by this species.

Song Sparrow ("Modesto" Population): The song sparrow ("Modesto" population) (*Melospiza melodia*) is a CDFW species of special concern. This species is found in emergent freshwater marshes dominated by tules and cattails as well as riparian willow thickets. They nest in riparian forests of valley oak with a sufficient understory of blackberry, along vegetated irrigation canals and levees, and in recently planted valley oak restoration sites.

The Project site does not contain dense, emergent vegetation and lacks suitable aquatic habitats. This species may pass through the Project site but is not expected to be impacted by the proposed Project due to a lack of suitable nesting habitat.

Other Nesting Migratory Birds and Raptors: Migratory birds are protected under the MBTA of 1918 (16 U.S.C. 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10; this also includes feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Additionally, Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (i.e., hawks, owls, eagles, and falcons), including their nests or eggs; and Section 3513 specifically states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

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A number of migratory birds and raptors have the potential to nest in or adjacent to the Project site. Suitable nest locations within and adjacent to the Project site include trees, grass, artificial structures, and bare ground.

Conclusion: As noted previously, the Project site contains 261.192 acres of cropland habitat, 17.426 acres developed/disturbed habitat, and 1.143 acres of ditches (which include all roadway infrastructure extensions). The proposed Project is expected to result in permanent impacts to the entire Project site. **Figure 3.4-3** shows impacts to biological communities.

One special-status wildlife species was observed within the Project site during the field survey on February 14, 2023, northern harrier. As discussed in the impact, the project would result in conversion of potential foraging and/or nesting habitat for special-status and migratory birds, including tricolored blackbird (*Agelaius tricolor*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), white-tailed kite (*Elanus leucurus*), and northern harrier (*Circus hudsonius*). Additionally, a number of migratory birds and raptors have the potential to nest in or adjacent to the Project site. This is a **potentially significant** impact.

MITIGATION MEASURE(S)

Mitigation Measure 3.4-4(a): *The Project proponent shall implement the following measure to avoid or minimize impacts on western burrowing owl:*

- *A qualified biologist shall conduct focused burrowing owl surveys in the Project area and surrounding 500 feet, where accessible, in accordance with the CDFW's Staff Report on Burrowing Owl Mitigation (Staff Report), published March 7, 2012. Surveys shall be repeated if project activities are suspended or delayed more than 14 days.*
 - *According to the Staff Report, four survey visits shall be conducted during the breeding season (February 1 to August 31): 1) at least one site visit between February 15 and April 15, and 2) a minimum of three survey visits, at least three weeks apart, between April 15 and July 15, with at least one visit after June 15.*
 - *Non-breeding season surveys shall be conducted during four site visits, spread evenly apart.*
 - *Take avoidance surveys may also be conducted. An initial take avoidance survey shall be conducted no less than 14 days prior to initiating ground disturbance activities using the methods outlined in the Staff Report. Implementation of avoidance and minimization measures would be triggered by positive owl presence on the site where project activities will occur. The development of avoidance and minimization approaches would be informed by monitoring the burrowing owls. Burrowing owls may re-colonize a site after only a few days. Time lapses between project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance.*
- *If no burrowing owls are detected, no further measures are required. If active burrowing owl burrows are detected, the avoidance, minimization, and mitigation methodologies outlined in the CDFW's Staff Report on Burrowing Owl Mitigation shall be followed prior to initiating Project related activities that may impact burrowing owls.*

Mitigation Measure 3.4-4(b): *The project proponent shall implement the following measures to avoid or minimize impacts on Swainson's hawk:*

- *If construction activities will begin during the Swainson's hawk nesting season (March 20 to September 15), a qualified biologist should conduct at least the minimum number of surveys called for within at least two survey periods prior to the initiation of construction in accordance with the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000) or the current CDFW-approved protocol. Current survey periods specified by the Guidelines are March 20 to April 5, April 5 to April 20, April 21 to June 10, and June 10 to July 30. All potential nest trees within 0.5-mile of the proposed Project footprint should be visually examined for potential Swainson's hawk nests, as accessible.*
- *If no active Swainson's hawk nests are identified on or within 0.5-mile of the proposed Project, a letter report documenting the survey methodology and findings should be submitted to the Project proponent and no additional mitigation measures are recommended.*
- *If active Swainson's hawk nests (a nest becomes active once the first egg is laid and remains active until the fledged young are no longer dependent on the nest [USFWS 2018]) are found within 0.5-mile of the Project footprint, a survey report should be submitted to CDFW, and an avoidance and minimization plan should be developed for approval by CDFW prior to the start of construction. The avoidance plan should identify measures to minimize impacts to the active Swainson's hawk nest depending on the location of the nest relative to the project footprint. These measures may include:*
 - *Conduct a worker awareness training program prior to the start of construction;*
 - *Establish a buffer zone and work schedule to avoid impacting the nest during critical periods. If possible, no work will occur within 200 yards of the nest while it is in active use. If work will occur within 200 yards of the nest, then construction will be monitored by a qualified biologist to ensure that no work occurs within 50 yards of the nest during incubation or within 10 days after hatching (Swainson's Hawk Technical Advisory Committee 2000);*
 - *Have a biological monitor conduct regular monitoring of the nest during construction activities; and*
 - *Should the project biologist determine that the construction activities are disturbing the nest; the biologist should halt construction activities until the CDFW is consulted.*
- *The Project site contains 261.192 acres of cropland habitats which provide suitable foraging habitat for Swainson's hawks. CDFW has provided guidelines for mitigating impacts to Swainson's hawk foraging habitat as summarized below (CDFW 1994):*
 - a) *Projects within 1 mile of an active nest tree shall provide:*
 - i. *One acre of foraging habitat for each acre of development at a ratio of 1:1. Mitigated lands shall consist of 10 percent of the land requirements met by fee title acquisition or a conservation easement allowing for the active management of the habitat, and the remaining 90 percent of the land protected by a conservation easement on agricultural lands or other suitable*

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habitats which provide foraging habitat for Swainson's hawk (grasslands, rangeland, etc.) and no requirements for active management of the habitat; or

- ii. One-half acre of foraging habitat for each acre of development authorized at a ratio of 0.5:1. All the land requirements shall be met by fee title acquisition or a conservation easement, which allows for the active management of the habitat for prey production on the land. Prey abundance and availability is determined by land and farming patterns including crop types, agricultural practices, and harvesting regimes. Actively managed land for prey production may result in the land becoming less valuable for crop production due to management limitations but increases the value for Swainson's hawk through functional lift.*
- b) Projects within 5 miles of an active nest tree but greater than 1 mile from the nest tree shall provide 0.75 acre of foraging habitat for each acre of urban development at a ratio of 0.75:1. All foraging habitat may be protected through fee title acquisition or conservation easement on agricultural lands or other suitable habitats.*
- c) Projects within 10 miles of an active nest tree but greater than 5 miles from an active nest tree shall provide 0.5 acre of Habitat Management land for each acre of urban development at a ratio of 0.5:1. All foraging habitat may be protected through fee title acquisition or a conservation easement on agricultural lands or other suitable habitat.*

The City of Dixon as the CEQA lead agency shall make the final determination as to the extent of the proposed Project's impacts to Swainson's hawk foraging habitat and any appropriate mitigation that might be necessary associated with project development. Mitigation bank credits may also be used to satisfy Swainson's hawk mitigation requirements as approved by the City and CDFW.

Mitigation Measure 3.4-4(c): *The project proponent shall implement the following measure to avoid or minimize impacts on tricolored blackbird, northern harrier, white-tailed kite and other special-status birds and nesting migratory birds and raptors that may occur on the site:*

Active nests and nesting birds are protected by the California Fish and Game Code Sections 3503 and 3503.5, 3513 and the MBTA. Ground-disturbing and other development activities including grading, vegetation clearing, tree removal/trim, and construction could impact nesting birds if these activities occur during the nesting season (generally February 1 to August 31). To avoid impacts to nesting birds, all ground disturbing activity shall be completed between September 1 and January 31, if feasible. If construction cannot occur outside of the nesting season, the following measures are recommended:

- If construction activities occur during the nesting season, a qualified biologist shall conduct a nesting bird survey to determine the presence of any active nests within the Project site. Additionally, the surrounding 500 feet of the Project site shall be surveyed for active raptor nests, where accessible. The nesting bird survey shall be conducted within 14 days prior to commencement of ground-disturbing or other development activities. If the nesting bird*

survey shows that there is no evidence of active nests, then a letter report shall be prepared to document the survey and be provided to the project proponent and no additional measures are recommended. If development does not commence within 14 days of the nesting bird survey, or halts for more than 14 days, then an additional survey is required prior to starting or resuming work within the nesting season.

- *If active nests are found, then the qualified biologist shall establish a species-specific buffer to prohibit development activities near the nest to and minimize nest disturbance until the young have successfully fledged or the biologist determines that the nest is no longer active. Buffer distances may range from 30 feet for some songbirds and 0.5 mile for some raptors. Nest monitoring may also be warranted during certain phases of construction to ensure nesting birds are not adversely impacted. If active nests are found within any trees slated for removal, then an appropriate buffer shall be established around the tree and all trees within the buffer shall not be removed until a qualified biologist determines that the nest has successfully fledged and/or is no longer active.*
- *A qualified biologist shall conduct environmental awareness training that is given to all onsite personnel prior to the initiation of work.*
- *If construction occurs outside of the nesting bird season (September 1 to January 31) a nesting bird survey and environmental training for nesting birds would not be required.*

LEVEL OF SIGNIFICANCE AFTER MITIGATION MEASURE

Less than Significant.

Implementation of Mitigation Measures 3.4-4(a) through 3.4-4(c) would ensure that measures to avoid or minimize impacts on tricolored blackbird (*Agelaius tricolor*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), white-tailed kite (*Elanus leucurus*), northern harrier (*Circus hudsonius*), and a number of migratory birds and raptors are implemented. For example, Mitigation Measure 3.4-4(a) requires site surveys for burrowing owls and avoidance, minimization, and mitigation methodologies outlined in the CDFW's Staff Report on Burrowing Owl Mitigation should active burrows be detected during surveys. Mitigation Measure 3.4-4(b) requires site surveys for Swainson's hawk and measures should nests be found during surveys. This measure also requires mitigation for impacts to Swainson's hawk foraging habitat depending on the distance from any active nests. Mitigation Measure 3.4-4(c) requires site surveys for other protected birds if construction occurs within the nesting bird season.

These mitigation measures would reduce the potential for impacts to special-status bird species to a ***less-than-significant*** level.

Impact 3.4-5: Implementation of the proposed Project would not result in direct or indirect effects on special-status mammal species (Less than Significant)

Special-status mammals that occur within the nine-quad region for the Project site include: pallid bat, silver-haired bat, hoary bat, western red bat, American badger, and Yuma myotis. These species are discussed below:

Pallid Bat: Pallid bat (*Antrozous pallidus*) is a listed CDFW species of special concern. It favors roosting sites in crevices in rock outcrops, caves, hollow trees, abandoned mines, and human-made structures such as barns, attics, and sheds. Though pallid bats are gregarious, they tend to group in small colonies of 10 to 100 individuals. It is a nocturnal hunter and captures prey in flight, but unlike most American bats, the species has been observed foraging for flightless insects, which it seizes after landing.

This species may pass through the Project site but because typical habitat types do not occur in the Project site and suitable roosts are also absent, it is not expected to occur.

Silver-Haired Bat: Silver-haired bat (*Lasionycteris noctivagans*) is a listed CDFW special animal. Primarily considered a coastal and montane forest species, the silver-haired bat roosts in abandoned woodpecker holes, under bark, and occasionally in rock crevices. This insectivore's favored foraging sites include open wooded areas near water features.

Suitable forest and riparian habitat do not occur on the Project site.

Hoary Bat: The hoary bat (*Lasiurus cinereus*) is a listed CDFW special animal. It is considered to be one of the most widespread of all American bats with a range extending from Canada to central Chile, Argentina, and Hawaii. Hoary bats prefer older large leaf species such as cottonwoods, willows, and fruit or nut trees for daytime roosts. The species is primarily crepuscular or nocturnal and requires open areas to hunt its main prey item, moths. The hoary bat is considered a forest/woodland species, and in California they are often associated with undisturbed riparian or stream corridors.

Suitable forest habitat does not occur on the Project site.

Western Red Bat: The western red bat (*Lasiurus cinereus*) is a listed CDFW species of special concern. This species typically prefers edges that have trees for roosting as well as open areas. This species on a multitude of insects and roosts primarily in trees and sometimes in shrubs, but less often.

This species may pass through the Project site but because typical habitat types do not occur in the Project site and suitable roosts are also absent, it is not expected to occur.

American Badger: American badger (*Taxidea taxus*) is a listed CDFW species of special concern. This burrowing carnivorous mammal is solitary and very territorial preferring to feed on small mammals, lizards, snakes, insects, and carrion. It has no known natural enemies and inhabits dry, open fields, grasslands, and pastures.

Suitable habitat does not occur in the Project site and the Project site is regularly cultivated and disturbed in association with farming activities.

Yuma Myotis: The Yuma myotis (*Myotis yumanensis*) is a listed CDFW special animal. This bat species ranges from juniper and riparian woodlands to the desert near open water sources.

This species may pass through the Project site but because typical habitat types do not occur in the Project site and suitable roosts are also absent, it is not expected to occur.

Conclusion: The Project site does not provide the necessary habitat to support these special-status mammals. This is a **less-than-significant** impact.

MITIGATION MEASURES

None Required.

Impact 3.4-6: Implementation of the proposed Project would not result in direct or indirect effects on candidate, sensitive, or special-status plant species (Less Than Significant)

The search revealed 36 special-status plant species within the 9-quad region for the Project site. Based on field observations, published information, and literature review, no special-status plants have potential to occur within the Project site. All the regional special-status plants identified in the query occur on adobe, alkaline, or serpentine soils, within vernal pools or other aquatic habitats, or within natural habitat types which do not occur in the Project site. In addition, herbicide was observed being sprayed onsite during the survey on February 2, 2023, and herbicide equipment was observed onsite during the survey on February 14, 2023. The application of herbicide and the consistent disturbance of the site in association with agricultural activities further reduces the chance of special-status plants occurring onsite. Overall, this impact would be considered **less than significant**.

MITIGATION MEASURE

None Required.

Impact 3.4-7: Implementation of the proposed Project, with mitigation, would not adversely affect protected wetlands and jurisdictional waters (Less than Significant with Mitigation)

As part of the Aquatic Resources Delineation completed for the project, a total of 1.150 acres of ditches were identified with the Project site. Although these features have not been formally verified by the USACE, they are likely to be classified as a water of the U.S. and/or water of the State. A preliminary jurisdictional determination (SPK-2021-00634) was issued May 11, 2023 by the USACE for the Project. The preliminary jurisdictional determination states the 1.17 acres of ditches are considered potential jurisdictional aquatic resources (“waters of the United States”) regulated under Section 404 of the Clean Water Act.

3.4 BIOLOGICAL RESOURCES

It is noted that the Aquatic Resources Delineation identifies features outside of the Project boundary. However, areas outside of the Project boundary are not included in this EIR analysis. A final jurisdictional determination will be made based on the Project boundary.

It is also noted that new criteria to determine the presence of a jurisdictional wetland waters of the U.S. were implemented June 22, 2020, requiring a hydrologic nexus to a USACE traditional navigable water, such as “by directly abutting or having regular surface water communication with jurisdictional waters”. The mapped features do not meet any USACE jurisdictional criteria under the Navigable Waters Protection Rule because there are no jurisdictional riverine, limnic, or tidal waters present adjacent to the swale which share hydrologic connectivity. These features are subject to the interpretation and verification of the USACE Sacramento District Regulatory Division.

The preliminary jurisdictional status of these water features has been determined as part of the Aquatic Resources Delineation completed for the project. As noted above, the preliminary jurisdictional determination states the 1.17 acres of ditches are considered potential jurisdictional aquatic resources (“waters of the United States”) regulated under Section 404 of the Clean Water Act. Therefore, this is a **potentially significant** impact.

MITIGATION MEASURE

Mitigation Measure 3.4-7: *The Project proponent shall implement the following measure to avoid or minimize impacts on potentially jurisdictional waters:*

- *Before any activities that would result in discharge, fill, removal, or hydrologic interruption of any of the water features occur within the Project site, the Project proponent shall obtain an approved jurisdictional delineation (AJD) from the USACE.*
- *For any impacts on jurisdictional features, the Project proponent shall obtain the appropriate CWA Section 404 and or 401 permits. All permit conditions including required avoidance, minimization, and mitigation measures included as conditions of the permit shall be followed.*
- *Section 404 authorization from the USACE and a Section 401 Water Quality Certification from the RWQCB shall be required prior to the start of construction that would impact any waters of the U.S. Any waters of the U.S. or jurisdictional wetlands that would be lost or disturbed shall be replaced or rehabilitated on a “no-net-loss” basis in accordance with the USACE mitigation guidelines and City of Dixon requirements. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods agreeable to the agencies.*

If a 404 permit is required for the proposed Project, then water quality concerns during construction shall be addressed in the Section 401 water quality certification from the Regional Water Quality Control Board. A Storm Water Pollution Prevention Plan (SWPPP) shall also be required during construction activities. SWPPPs are required in issuance of a National Pollutant Discharge Elimination System (NPDES) construction discharge permit by the U.S. Environmental Protection Agency. Implementation of Best Management Practices

(BMPs) during construction is standard in most SWPPPs and water quality certifications. Examples of BMPs include stockpiling of debris away from regulated wetlands and waterways; immediate removal of debris piles from the site during the rainy season; use of silt fencing and construction fencing around regulated waterways; and use of drip pans under work vehicles and containment of fuel waste throughout the site during construction.

If the ditches are determined to not be subject to federal jurisdiction, then these features may still be subject to waste discharge requirements under the Porter-Cologne Water Quality Control Act. Section 13260(a) of the Porter-Cologne Water Quality Control Act (contained in the California Water Code) requires any person discharging waste or proposing to discharge waste, other than to a community sewer system, within any region that could affect the quality of the waters of the State (all surface and subsurface waters) to file a report of waste discharge. The discharge of dredged or fill material into the ditches may constitute a discharge of waste that could affect the quality of waters of the State. A report of waste discharge shall be filed for impacts to non-federal waters, if required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION MEASURE

Less than Significant.

Implementation of Mitigation Measures 3.4-7 requires that, prior to any activities that would result in discharge, fill, removal, or hydrologic interruption of any of the water features within the Project site, a formal wetland delineation be conducted and an approved jurisdictional determination be obtained from the USACE. Additionally, any impacts on jurisdictional features would be required to obtain the appropriate CWA Section 404 and or 401 permits.

The mitigation measure identified above would reduce the above identified impact related to protected wetlands and jurisdictional waters. With implementation of the above mitigation measure, this impact would be considered *less than significant*.

Impact 3.4-8: Implementation of the proposed Project would not result in direct or indirect adverse effects on riparian habitat or a sensitive natural community. (No Impact)

The CNDDDB record search revealed documented occurrences of three sensitive habitats, Northern Claypan Vernal Pool, Valley Needlegrass Grassland, and Coastal and Valley Freshwater Marsh, within the nine-quad region for the Project site. This sensitive habitat does not occur within the Project site. Implementation of the proposed Project would have *no impact* on riparian habitats or natural communities.

MITIGATION MEASURE

None Required.

Impact 3.4-9: Implementation of the proposed Project would not result in interference with the movement of native fish or wildlife species or with established wildlife corridors, or impede the use of native wildlife nursery sites. (No Impact)

Wildlife corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. This fragmentation of habitat can also occur when a portion of one or more habitats is converted into another habitat; for instance, when woodland or scrub habitat is altered or converted into grasslands after a disturbance such as fire, mudslide, or construction activities. Wildlife corridors mitigate the effects of this fragmentation by: (1) allowing animals to move between remaining habitats thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) on population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

The CNDDDB record search did not reveal any documented wildlife corridors or wildlife nursery sites on or adjacent to the Project site. The Project site is located within an agricultural area that is surrounded by agricultural fields, industrial areas, and streets/I-80. Although wildlife may disperse through the Project site on a local level, the Project site is not considered a wildlife migration or movement corridor. Implementation of the proposed Project will have *no impact* relative to this issue.

MITIGATION MEASURE

None Required.

Impact 3.4-10: Implementation of the proposed Project would not result in conflicts with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (Less than Significant)

The City of Dixon does not have a tree preservation policy or ordinance, and the NEQSP does not specify thresholds for tree protection. The site does not contain any trees.

The Natural Environment Element of the General Plan establishes numerous policies related to biological resources as listed below:

NATURAL ENVIRONMENT ELEMENT POLICIES

Policy NE-1.1 Preserve the natural open space and agricultural lands that surround Dixon through continued leadership in cross-jurisdictional conservation initiatives such as the Vacaville-Dixon Greenbelt and the Davis-Dixon greenbelt.

- **Consistent:** *As discussed previously, the Project site is in an agricultural setting and was used to cultivate various row crops. Aerial imagery of the Project site indicates row crops have been*

cultivated on the site for at least the past thirty-five years. The site was anticipated for development of Campus Mixed Use uses as part of the City's General Plan (adopted in 2021) as well as the NQESP (adopted in 1995). The project proposes a mixed-use development planned to fully realize the intent of the City's recently created Campus Mixed Use General Plan designation. As defined by the City's 2040 General Plan, the intent of the Campus Mixed Use designation is "... to foster new mixed employment districts with a range of job-generating uses, housing, and easy access to the regional transportation network." The General Plan EIR anticipated development of the Project site as part of the overall evaluation of the buildout of the City.

Policy NE-1.2 Support regional efforts to place additional land under permanent conservation easements and continue to use the Agricultural Land Mitigation Fund to collect development impact fees for the purpose of funding greenbelt expansion.

- **Consistent:** *As discussed previously, the Project proposes a mixed-use development planned to fully realize the intent of the City's recently created Campus Mixed Use General Plan designation. As defined by the City's 2040 General Plan, the intent of the Campus Mixed Use designation is "... to foster new mixed employment districts with a range of job-generating uses, housing, and easy access to the regional transportation network." The Project would assist the City in achieving the intent of this policy.*

Policy NE-1.3 Encourage open space preservation through easements, open space designation, or dedication of lands for the purpose of connecting conservation areas, protecting biodiversity, accommodating wildlife movement, and sustaining ecosystems.

- **Consistent:** *As discussed previously, the Project proposes a mixed-use development planned to fully realize the intent of the City's recently created Campus Mixed Use General Plan designation. As defined by the City's 2040 General Plan, the intent of the Campus Mixed Use designation is "... to foster new mixed employment districts with a range of job-generating uses, housing, and easy access to the regional transportation network." The Project would assist the City in achieving the intent of this policy.*

Policy NE-1.4 Prior to annexing land into the city or expanding the SOI, continue to require agricultural mitigation consistent with the Solano County Local Agency Formation Commission's Standards and Procedures when agricultural lands would be converted to nonagricultural purposes.

- **Does Not Apply.** *The Project does not require annexation into the City or expanding the SOI.*

Policy NE-1.5 Continue to allow agriculture as an interim use on land within the City that is designated for future urban use.

- **Consistent:** *As discussed previously, the Project site is in an agricultural setting and was used to cultivate various row crops. Aerial imagery of the Project site indicates row crops have been cultivated on the site for at least the past thirty-five years. The site was anticipated for development of Campus Mixed Use uses as part of the City's General Plan (adopted in 2021) as well as the NQESP (adopted in 1995). The project proposes a mixed-use development planned to fully realize the intent of the City's recently created Campus Mixed Use General Plan designation.*

3.4 BIOLOGICAL RESOURCES

As defined by the City's 2040 General Plan, the intent of the Campus Mixed Use designation is "... to foster new mixed employment districts with a range of job-generating uses, housing, and easy access to the regional transportation network." The General Plan EIR anticipated development of the Project site as part of the overall evaluation of the buildout of the City. The General Plan EIR determined that impacts associated with the conversion and loss of Important Farmland would be less than significant.

Policy NE-1.9 Facilitate groundwater recharge in Dixon by encouraging development projects to use Low Impact Development (LID) practices such as bioretention, porous paving, and green roofs, and by encouraging private property owners to design or retrofit landscaped or impervious areas to better capture storm water runoff.

- **Consistent.** *This issue is addressed in Section 3.10 (Hydrology and Water Quality) of the Draft EIR. Impacts associated with groundwater depletion, interference with groundwater recharge, and conflicts with groundwater management plans were determined to be less than significant.*

Policy NE-1.11 Support regional habitat conservation efforts, including implementation of the Solano Countywide Multispecies Habitat Conservation Plan.

- **Consistent.** *This issue is addressed in Impact 3.4-11 of this section of the Draft EIR. As noted, the Solano HCP is currently in the draft stages and is not a final document or plan as of December 2023. If the Solano HCP becomes final prior to Project initiation, the Project proponent may apply for coverage under the Solano HCP. The proposed Solano HCP establishes a framework for complying with State and Federal endangered species regulations while accommodating future urban growth, development of infrastructure, and ongoing operations and maintenance activities associated with flood control, irrigation facilities, and other public infrastructure undertaken by or under the permitting authority/control of the Plan Participants within Solano County. Implementation of Mitigation Measures 3.4-5 requires that, should the Solano HCP be adopted prior to initiation of any ground disturbing activities for any phase of development associated with the project, the Project shall be developed in accordance with the Solano HCP and the Programmatic Endangered Species Act Consultation issued by the U.S. Fish and Wildlife Service.*

Policy NE-1.12 Ensure that adverse impacts on sensitive biological resources, including special-status species, sensitive natural communities, sensitive habitat, and wetlands are avoided or mitigate to the greatest extent feasible as development takes place.

- **Consistent.** *Section 3.4, Biological Resources, analyzes impacts related to including special-status species, sensitive natural communities, sensitive habitat, and wetlands. This section includes mitigation measures to reduce the potential impacts to special-status birds and ditches which are considered potential jurisdictional aquatic resources ("waters of the United States") to a less-than-significant level. Although the Project would involve development of land currently used for agricultural purposes, the Project site is designated Campus Mixed Use uses by the General Plan and NEQSP, and development of the site with mixed uses has been anticipated by the General Plan and NEQSP.*

Policy NE-1.13 In areas where development (including trails or other improvements) has the potential for adverse effects on special-status species, require project proponents to submit a study conducted by a qualified professional that identifies the presence or absence of special-status species at the proposed development site. If special-status species are determined by the City to be present, require incorporation of appropriate mitigation measures as part of the proposed development prior to final approval.

- **Consistent.** *As noted previously, a Biological Resources Assessment (Helix Environmental Planning, 2023) (see Appendix D of this EIR) was completed for the project. The Assessment was conducted by a qualified professional and identifies the presence or absence of special-status species at the proposed development. The recommendations of the Assessment are included as mitigation measures in this section.*

Policy NE-1.14 Protect the nests of raptors and other birds when in active use, as required by State and federal regulations. In new development, avoid disturbance to and loss of bird nests in active use by scheduling vegetation removal and new construction during the non-nesting season or by conducting a pre-construction survey by a qualified biologist to confirm nests are absent or to define appropriate buffers until any young have successfully fledged the nest.

- **Consistent.** *Section 3.4, Biological Resources, includes mitigation measures to reduce the potential impacts to special-status birds (including raptors and other birds) to a less-than-significant level. The measures include avoidance and minimization measures as well as preconstruction surveys.*

Policy NE-1.15 Recognize the importance of the urban forest to the natural environment in Dixon and expand the tree canopy on public and private property throughout the community.

- **Does Not Apply.** *There are no trees located on-site. Future development of the site would include landscaping (street trees, etc.).*

Policy NE-1.17 Minimize removal of, and damage to, trees due to construction-related activities and continue to require replacement of trees, including street trees lost to new development.

- **Does Not Apply.** *There are no trees located on-site.*

Policy NE-1.18 Require new development to provide and maintain street trees suitable to local climatic conditions.

- **Consistent.** *As noted previously, there are no trees located on-site. Future development of the site would include landscaping (street trees, etc.).*

The proposed Project would not result in conflicts with local policies or ordinances protecting biological resources, and the impact would be **less than significant**.

MITIGATION MEASURE

None Required.

Impact 3.4-11: Implementation of the proposed Project, with mitigation, would not result in conflicts with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. (Less than Significant with Mitigation)

As noted previously, the Solano HCP is currently in the draft stages and is not a final document or plan as of April 2024. If the Solano HCP becomes final prior to Project initiation, the Project proponent may apply for coverage under the Solano HCP.

The proposed Solano HCP establishes a framework for complying with State and Federal endangered species regulations while accommodating future urban growth, development of infrastructure, and ongoing operations and maintenance activities associated with flood control, irrigation facilities, and other public infrastructure undertaken by or under the permitting authority/control of the Plan Participants within Solano County.

The possibility exists that the Solano HCP will be adopted prior to development of the first phase of the project. Should the Solano HCP be in place prior to development of any phase of the project, a **potentially significant** impact would result.

MITIGATION MEASURE(S)

Mitigation Measure 3.4-11: *Should the Solano Multispecies Habitat Conservation Plan (Solano HCP) be adopted prior to initiation of any ground disturbing activities for any phase of development associated with the project, the Project shall be developed in accordance with the Solano HCP and the Programmatic Endangered Species Act Consultation issued by the U.S. Fish and Wildlife Service. The Solano HCP is proposed to include avoidance and minimization measures as well as mitigation protocols for covered species and sensitive habitats. The City of Dixon is a voluntary participant in the proposed Solano HCP.*

The Project applicant, the City of Dixon, and a representative from the Solano HCP shall ensure that all mitigation/conservation requirements of the Solano HCP are adhered to prior to and during construction. To the extent there is duplication in mitigation for a given species, the requirements of the Solano HCP shall supersede. If this measure is implemented after adoption of the Solano HCP, the project proponent shall comply with all requirements of the Solano HCP.

LEVEL OF SIGNIFICANCE AFTER MITIGATION MEASURE

Less than Significant.

Implementation of Mitigation Measures 3.4-11 requires that, should the Solano HCP be adopted prior to initiation of any ground disturbing activities for any phase of development associated with the project, the Project shall be developed in accordance with the Solano HCP and the Programmatic Endangered Species Act Consultation issued by the U.S. Fish and Wildlife Service.

The mitigation measure identified above would reduce the above identified impact related to conflicts with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or

other approved local, regional, or state habitat conservation plan. With implementation of the above mitigation measure, this impact would be considered *less than significant*.

CUMULATIVE IMPACTS

The cumulative setting for biological resources includes the Project site and the greater Solano County region. Development associated with implementation of the local General Plan(s) and Specific Plan(s), including the NEQSP, would contribute to the ongoing loss of natural and agricultural lands in Solano County, including the Project site. Cumulative development would result in the conversion of existing habitat to urban uses. The local General Plan(s), in addition to regional, State and federal regulations, includes policies and measures that mitigate impacts to biological resources associated with General Plan buildout.

Impact 3.4-12: The proposed Project, in combination with other cumulative development, could result in the loss of biological resources including habitats and special status species. (Less than Significant with Mitigation)

Under cumulative conditions, buildout of the General Plan(s) within Solano County will result in impacts to biological resources in the cumulative area through new and existing development and habitat loss. Further, some developments may result in the take of species or a disruption to wildlife corridors. Therefore, the cumulative impact to biological resources is potentially significant.

The proposed Project has the potential to result in impacts to special-status species in the region. Although there has been no documented sighting within the immediate area in, or near the Project site, the Project site provides potential habitat for several species. Therefore, the proposed Project would have a considerable contribution to the impact, and the impact would be *potentially significant*.

MITIGATION MEASURE(S)

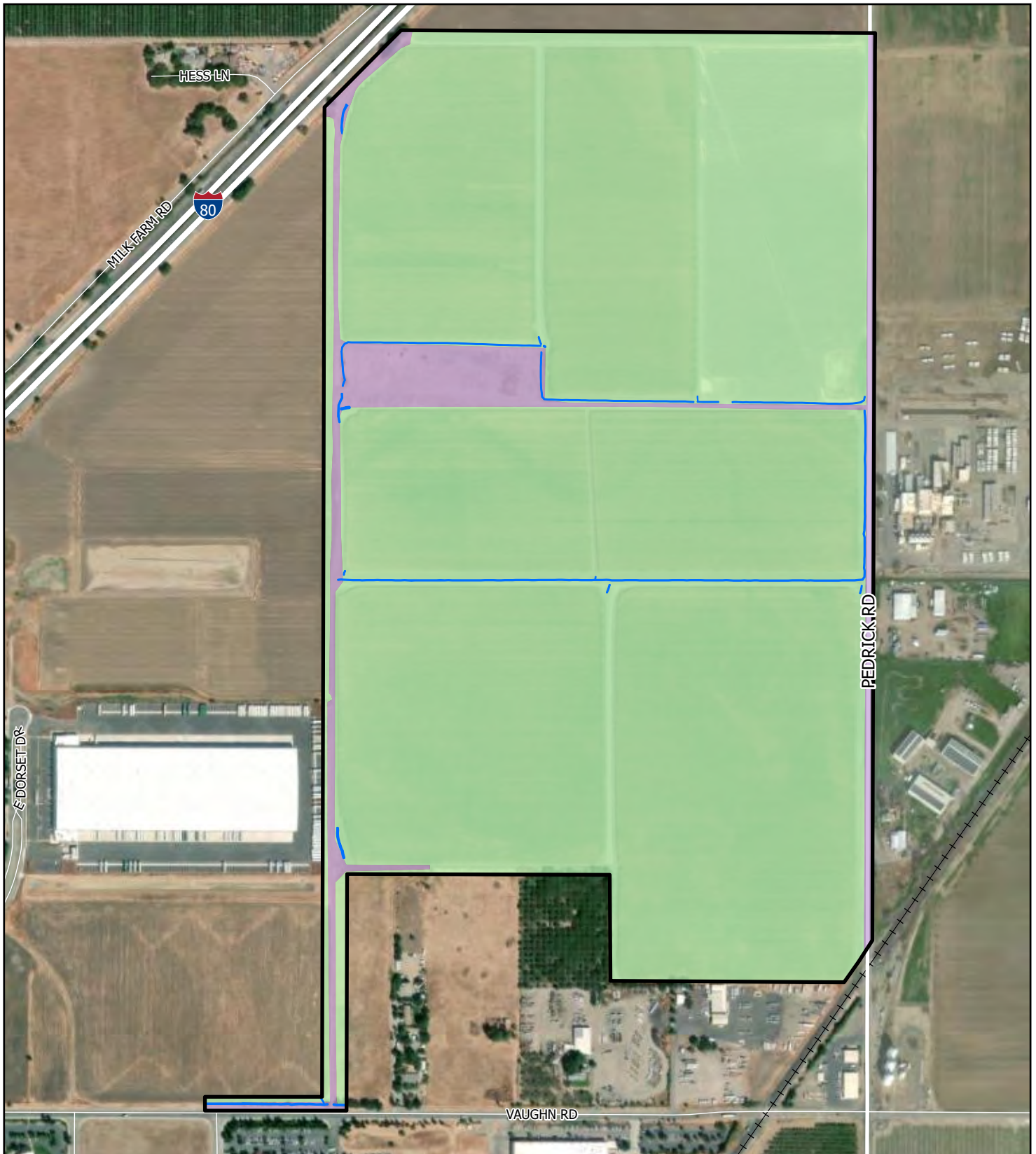
Mitigation Measure 3.4-12: *Implement Mitigation Measures 3.4-4(a) through 3.4-4(c), and 3.4-7 and 3.4-11.*

LEVEL OF SIGNIFICANCE AFTER MITIGATION MEASURE

Less than Significant.

Mitigation Measure 3.4-12 requires measures to avoid or minimize impacts on other protected bird species that may occur on the site. In addition, Mitigation Measure 3.4-12 requires that, prior to grading, the Project applicant is required to conduct a survey of the area to be graded for bat roosts, and if present, the Project applicant shall implement the following measures to avoid or minimize impacts on special-status bats.

Implementation of Mitigation Measure 3.4-12 would reduce potentially cumulative impacts to a *less than significant* level.

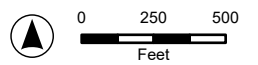


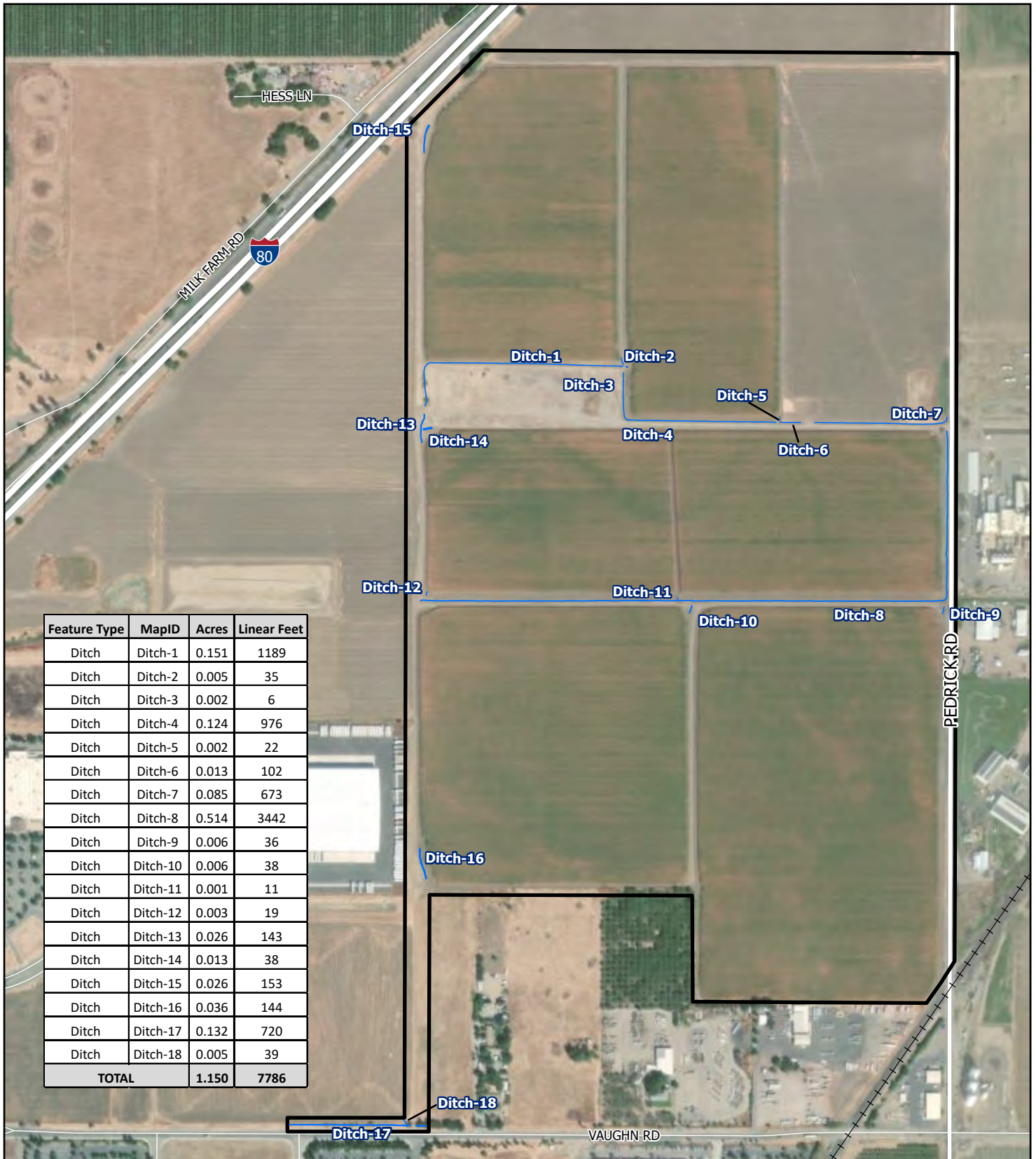
LEGEND

- The Campus Project Site
- Wetland Ditch
- Cropland
- Developed/Disturbed

THE CAMPUS EIR

Figure 3.4-1. Biological Communities



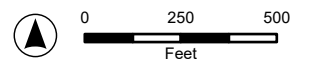


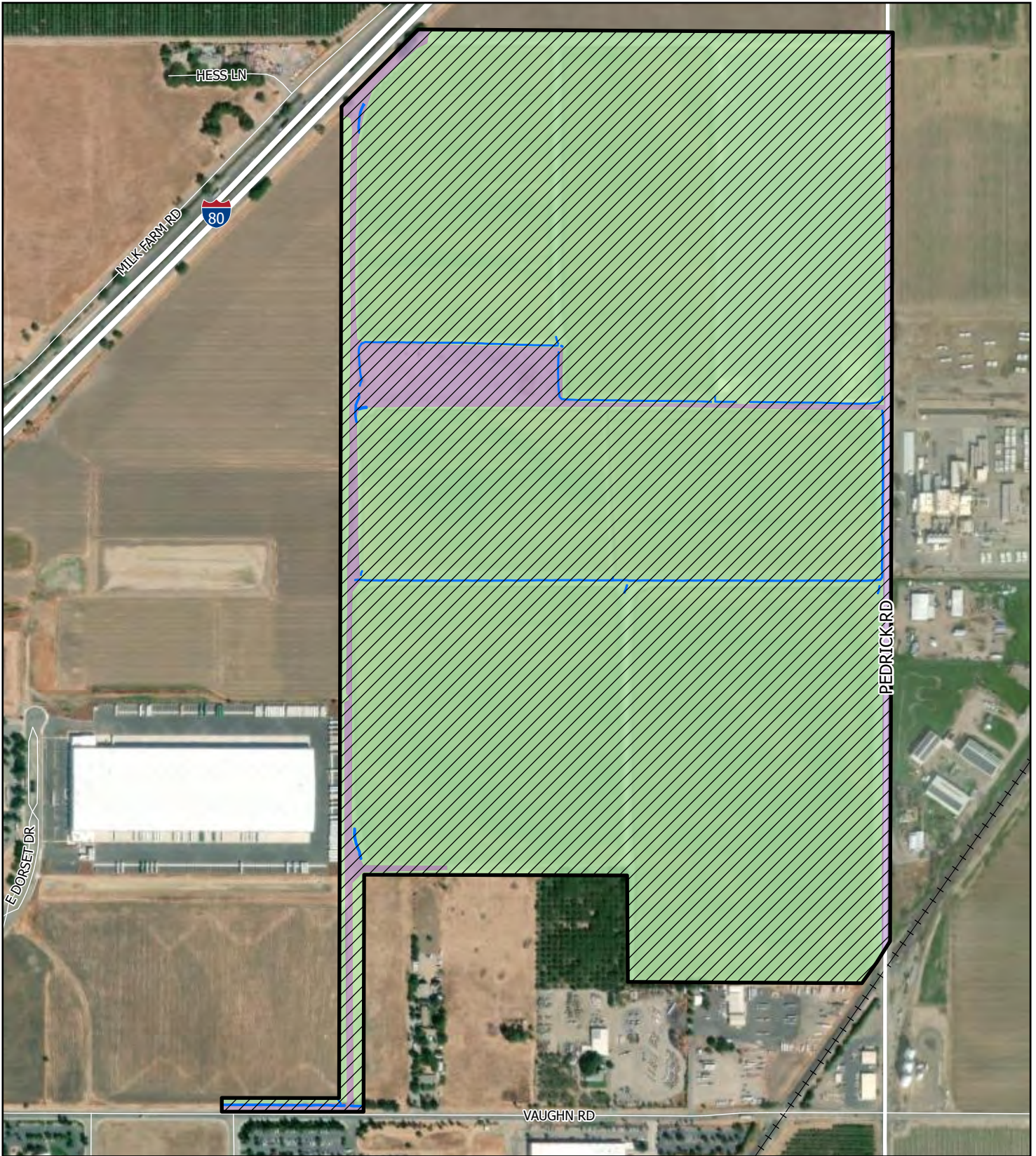
LEGEND

- The Campus Project Site
- Ditch

THE CAMPUS EIR

Figure 3.4-2. Aquatic Resources Delineation



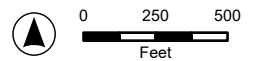


LEGEND

- Study Area
- Cropland
- Project Impacts
- Developed/ Disturbed
- Wetland Ditch

THE CAMPUS EIR

Figure 3.4-3. Impacts to Biological Communities



The purpose of this section is to provide a discussion of the archaeological background, ethnographic overview, historic overview, known cultural resources in the region, the regulatory setting, an impact analysis, and mitigation measures. This section is primarily based upon the *Dixon 257 Development Project Cultural Resources Assessment*, Helix Environmental Planning, April 2023.

One comment was received during the public review period or scoping meeting for the Notice of Preparation (NOP) regarding this topic from the following: Native American Heritage Commission (NAHC) (August 30, 2023). This comment is addressed within this section. Full comments received are included in Appendix A.

This section refers to a cultural resources report prepared for the proposed Project. This report contains confidential information and, therefore, is not attached to this EIR. The report, referred to as Appendix O, *Cultural Resources Assessment*, is on file at the City of Dixon Community Development Department, 600 East A Street, Dixon, CA 95620.

3.5.1 ENVIRONMENTAL SETTING

PROJECT SETTING

The Project site is located within the City's Northeast Quadrant Specific Plan (NEQSP) which comprises nearly 40 percent of the plan's total 643+/- acres. The Project site is located on the eastern edge of the NEQSP adjacent to Pedrick Road. The Project site terrain consists of a flat area that was used for agriculture. Current property access consists of an existing roadway (Pedrick Road) along the eastern boundary of the Project site.

The Cultural Resources Assessment evaluated the Area of Potential Effects (APE) for the proposed Project. The APE is defined as the geographic area where project activities may directly or indirectly cause changes in the character or use of historic properties of prehistoric or historic age, if any such properties exist. The APE includes the entire 279.76 acres of the proposed Project site. The APE is surrounded by light industrial and neighborhood commercial to the south, highway commercial to the west, and highway commercial/agricultural land to the north, and train tracks, agricultural fields, and an industrial center to the east. The terrain consists of a flat area with the Project site itself in use for agriculture.

PREHISTORIC BACKGROUND

Windmiller Pattern or Early Horizon (3000 to 1000 B.C.)

The Early Horizon was centered in the Cosumnes district of the Delta and emphasized hunting rather than gathering, as evidenced by the abundance of projectile points in relation to plant processing tools. Additionally, atlatl, dart, and spear technologies typically included stemmed projectile points of slate and chert but minimal obsidian. The large variety of projectile point types and faunal remains suggests the exploitation of numerous types of terrestrial and aquatic species. Burials occurred in cemeteries and intra-village graves. These burials typically were ventrally extended, although some dorsal extensions are known with a westerly orientation and a high number of grave goods. Trade networks focused on the acquisition of ornamental and ceremonial objects in finished form rather than on raw material. The presence of artifacts made of exotic materials such as quartz, obsidian, and shell indicate an extensive

trade network that may represent the arrival of Utian populations into central California. Also, indicative of this period are rectangular Haliotis and Olivella shell beads, and charmstones that usually were perforated.

Berkeley Pattern or Middle Horizon (1000 B.C. to A.D. 500)

The Middle Horizon is characterized by the Berkeley Pattern, which displays considerable changes from the Early Horizon. This period exhibited a strong milling technology represented by minimally shaped cobble mortars and pestles, although metates and manos were still used. Dart and atlatl technologies during this period were characterized by non-stemmed projectile points made primarily of obsidian. The Berkeley Pattern marked the eastward expansion of Miwok groups from the San Francisco Bay Area. Compared with the Early Horizon, there is a higher proportion of grinding implements at this time, implying an emphasis on plant resources rather than on hunting. Typical burials occurred within the village with flexed positions, variable cardinal orientation, and some cremations. The practice of spreading ground ochre over the burial was common at this time. Grave goods during this period are generally sparse and typically include only utilitarian items and a few ornamental objects. However, objects such as charmstones, quartz crystals, and bone whistles occasionally were present, which suggest the religious or ceremonial significance of the individual. During this period, larger populations are suggested by the number and depth of sites compared with the Windmill Pattern. The Berkeley Pattern reflects the gradual expansion or assimilation of different populations rather than sudden population replacement and a gradual shift in economic emphasis.

Augustine Pattern or Late Horizon (A.D. 500 to Historic Period)

The Late Horizon is characterized by the Augustine Pattern, which represents a shift in the general subsistence pattern. Changes include the introduction of bow and arrow technology, and most importantly, acorns became the predominant food resource. Trade systems expanded to include raw resources as well as finished products. There are more baked clay artifacts and extensive use of Haliotis ornaments of many elaborate shapes and forms. Burial patterns retained the use of flexed burials with variable orientation, but there was a reduction in the use of ochre and widespread evidence of cremation. Judging from the number and types of grave goods associated with the two types of burials, cremation seems to have been reserved for individuals of higher status, whereas other individuals were buried in flexed positions. The Augustine Pattern represents the expansion of the Wintun population from the north, which resulted in combining new traits with those established during the Berkeley Pattern.

Central California research has expanded from an emphasis on defining chronological and cultural units to a more comprehensive look at settlement and subsistence systems. This shift is illustrated by the early use of burials to identify mortuary assemblages and more recent research using osteological data to determine the health of prehistoric populations. Although debate continues over a single model or sequence for central California, the general framework consisting of three temporal/cultural units is generally accepted, although the identification of regional and local variation is a major goal of current archaeological research.

The oldest archaeological sites in the vicinity of the Project site are few in number and consist of evidence of occupations by groups, which made use of lithic tools associated with the Lower Berkeley Pattern of

the San Francisco Bay and the Windmill Pattern of the Delta area, which date to between 3,000 and 500 B.C. Beyond this, however, the archaeology of the foothill margins along the east slope of the Central Valley and in Solano County is poorly understood and under-researched. Despite that, it is suggested through linguistic data that the ancestors of the cultural groups encountered in the Project site by the earliest European explorers, moved into the area around 700 A.D. These peoples are known as the Patwin.

ETHNOGRAPHIC OVERVIEW

The project area was once occupied by the Southern Patwin, a cultural group with a language and geographical relation to the Wintun group, who occupied the entire west side of the Sacramento Valley and north of the headwaters of the Sacramento River. Southern Patwin are known to have spoken several dialects, with those who lived within the current project area, and are thought to have spoken "Suisun." This group, though few in number, exerted influence over an extensive, yet sparsely populated region of the lower Sacramento Valley stretching from the west of the river and from San Pablo and Suisun bays to the north, perhaps as far as Knights Landing. Detailed information on this group is scarce, as even early ethnographers in the area (1870s) were unable to find large settlements and or individuals from this group from whom to gather data. Instead, understanding of these groups largely comes from locals of Spanish descent, who had been living in the area, and from what is known of Northern Patwin groups and other neighboring cultures.

Patwin settlement patterns consisted of a variety of larger permanent villages and population centers, and smaller temporary camps developed in specific locations to facilitate the exploitation of various resources. Patwin habitation sites were often established along high ground and banks along the Sacramento River or tributary streams, including the Cache, Putah, and Ulatis creeks, and valleys within the coastal range. Major settlements included Aguasto and Suisun, which were established near the bay environments of San Pablo and Suisun. Patwin winter houses were earth-covered, semi-subterranean multi-family structures 20 to 30 feet in diameter, while rectangular brush ramadas were used in summer. Long before the arrival of Europeans, the largest Patwin villages were able to grow to tremendous sizes due to the abundance of resources throughout the Sacramento River and bay resources, reaching upwards of 1,000 individuals or more. Populations subsisted on resources from abundant nearby fisheries, plant foods including seeds, nuts (especially acorns, which served as a dietary staple in the form of soup or gruel), berries, tubers and leafy greens, and wild game including tule elk, antelope, and waterfowl. Many of these plant resources would be dried and stored for use during later seasons. During seasonal salmon runs, communities would come together to fish and build fishing weirs, nets, and tule watercraft to help facilitate the activity. The seasonal availability of these resources would determine the gathering schedule.

In plains areas, the Patwin only built temporary camps during the summer months. This was partially due to the absence of firewood and is also attributed to the persistence of nuisance insects, such as gnats during the summer, which were extremely unpleasant. During winter months, camps were built along the margins of bay marshes and estuaries to facilitate the hunting of water birds.

Politically, the Patwin were divided into tribelets, each with its own chief, who would have lived in the group's major permanent village. Patwin chiefs held more authority than other chiefs who governed over other central California group. Here, ceremonial events would be held. Chieftdom was inherited

patrilineally, but village elders also held sway over who would actually take on the role. Leadership responsibilities consisted of overseeing religious ceremonies and overseeing economic prosperity. Larger “dance houses” up to 50 feet in diameter, where the centers of a complex ceremonial system called the “Kuksu Cult” a series of spirit impersonations held from October to May by a powerful secret society. Little is known about this cult and the ritual dances, but it is suspected that these were perceived by Patwin as essential for the maintenance of proper order of nature and human’s role within it. The chief of a village would also make determinations regarding when and where fishing, hunting, and or gathering efforts would take place. The chief also helped to resolve intra- and extra-tribal conflicts, either through negotiations, or in cases of territorial disputes, outright war with neighboring groups.

In terms of trade, Patwin groups bartered and purchased items with clam shell disk bead currency. Patwin groups are known to have traded for pine nuts, seeds, bear hides, beads, sinew-backed bows, shell beads, magnesite, salt, clams, and obsidian. In exchange, they would offer salmon, river otter pelts, cordage, shell beads, and yellow hammer headbands. Patwin groups were also renowned for their weaved baskets, which would be made in many shapes and sizes to assist with the gathering and storing of resources and in the preparation of foods. Skilled weavers would use sedge roots and willow and redbud shoots in the production of the baskets, which were also imbued with elaborate designs.

The missionization of California proved disastrous for the Patwin, who lived in close proximity to the San Francisco Bay. The missions established in the region (Delores, San Jose, and Sonoma) would all recruit “neophyte” from Patwin villages. As early as 1800, for example, Patwin from the Aguastos village was taken to Mission Delores. Mariano Vallejo exerted political control of Sonoma and the surrounding area in the 1820s. He worked towards an amicable relationship with local indigenous groups, including the Southern Patwin under Chief Solano, who proved to be a skilled diplomat.

In the late 1840s, the Gold Rush changed local dynamics in the area. During this period, the Southern Patwin way of life was tremendously disturbed. Diseases took a heavy toll on local populations, and kidnappings for forced labor on ranchos, or violent raids on villages by Euro-American settlers became common. While some Patwin successfully assimilated into surrounding populations and towns, the Southern Patwin village system and their traditional lifeways were all but destroyed by the time early ethnographer Stephen Powers surveyed their former territories in 1871-72.

HISTORIC OVERVIEW OF THE REGION

In the late 1760s and 1770s, several Spanish expeditions explored coastal areas within present-day Solano and Contra Costa Counties. In 1776, Mission San Francisco de Asis (Delores) and the Presidio were founded. By 1797, Mission San Jose de Guadalupe was established near Fremont, and in 1823, San Francisco de Solano near Sonoma was established. From these seats of Spanish power, outposts, and ranchos were established in the vicinity. These ranchos were used to supply missions with cattle, sheep, grains, fruits, and vegetables.

Expeditions were launched from these missions to collect “neophytes” from neighboring indigenous tribes, and when tribes resisted these efforts, or when neophytes managed to escape, the Spaniards would send raiding parties to retrieve the runaways and or exact revenge on tribes to ensure future

compliance. During the early 1830s, Mariano Vallejo gained the confidence of Francisco Solano, a Patwin Tribal chief. Chief Solano was eventually made one of Vallejo's lieutenants and later received title to a 17,000-acre rancho (Rancho Suscol), which was later sold to Vallejo. The county of Solano received its name from this Patwin Chief.

Mexican independence from Spain brought sweeping changes to the area, with the end of Spanish domination in the bay area, the secularization of the missions in 1833, and the opening up of huge tracts of land for settlement, cultivation, and animal husbandry. During the Mexican Period, former soldiers and prominent citizens developed and resided on ranchos, which were self-sustaining farms and homesteads. Many indigenous peoples were put to work on these rancheros. Some for pay, while others were simply forced to work. Some residents applied for and obtained large grants (known as Mexican Land grants), but the title was not given for this grant until the end of the 1800s, long after California was incorporated into the United States.

The Mexican rancho system eventually fell into disarray because owners had difficulty retaining control of their property. Though largely self-sufficient, this sufficiency was, in part, supported by the ability to sell off excess livestock and farm products, which were cultivated on the expansive parcels of rancho land. With the annexation of California by the United States and the Gold Rush of 1848, squatters on ranchos became a serious problem, with owners having little capacity to enforce or protect their borders from would-be intruders. In addition, some ranchos periodically fell on hard times economically, and owners would find themselves obligated to sell off portions of larger ranches to pay for debts incurred in labor and maintenance costs.

In the 1840s, Americans began to settle in the lands that today lie in Solano County. The first such American was John Wolfskill, who brought some 96 heads of cattle to the area and built a small settlement on Putah Creek. Wolfskill was the first of what would eventually become a steady stream of cattle ranchers moving into the area during the 1850s. Soon ranching and grain cropping would become the primary economic base of the region. To move surpluses of grain to the San Francisco area, boats began to ply the Cordelia, Suisun and Lindsay Slough, and Suisun and Laguna Creeks, which provided access to Benicia. From there, these goods were shipped to the city.

Throughout the 1850s, towns and cities in the area continued to grow and developed into places of commerce. In 1850, Rockville was founded, and by 1852, Suisun City had become a major trading center. Soon after, in 1853, the town of Cordelia (named after the wife of its founder, R. H. Waterman) was established as a shipping center for the region, and it quickly became a regular stop for stagecoaches headed east, north, and west. By this time, Green Valley had become a significant cattle-raising and wheat-growing area. The first winery in the county was also established in the Green Valley in 1858. By the end of the decade, however, Cordelia started to fall out of favor as a shipping center, and Waterman chose to donate funds and lands to help establish the city of Fairfield, which became the county seat in 1858.

The coming of the railroad to Suisun City in 1868 (which was later extended into the Central Valley) provided local access to the wheat produced in the Central Valley area, causing wheat prices to decline. As a result of the railroad's arrival, in the 1860s and 70s, local wheat fields were gradually transitioned into orchards, a more lucrative opportunity. During this period, marshes were drained and instead planted

in orchards, while fruit processing plants were established in Cordelia, Fairfield, and elsewhere to support this new enterprise. All the while, the cattle ranching industry continued to grow and thrive in the Green Valley. With the completion of the railroad in the late 1860s, many of the Chinese laborers who had been involved in its construction instead sought work on larger cattle ranches in the area. Reportedly, they were responsible for the construction of numerous stone walls used to demarcate land holdings and fence in cattle.

Moving into the 20th century, agriculture remained (and remains today) an important aspect of Solano County's economy. Cattle ranching has also remained a significant enterprise in the area. However, the region's principal economic drivers have faced setbacks. The Great Depression led to a temporary decline in local fruit production, packaging, shipping, and sales. Furthermore, in 1924 a hoof and mouth disease epidemic significantly affected the area's livestock, with thousands of animals having to be killed and burned to prevent total losses of herds.

HISTORIC OVERVIEW OF DIXON

The history of Dixon is closely tied to the agricultural development throughout Solano County, and the history of the railroad in the region. The first Euro-American settlement in the Dixon area was established by Elijah S. Silvey in 1852, who set up an inn and a saloon to serve as a mid-way point along the stagecoach route from Napa to Sacramento. He soon built a house and corral and kept around 100 dairy cows on his property. By 1865, the community, now known as Silveyville, had developed into a trade center, with a general store, post office, and blacksmith. In 1868 however, the Central Pacific Railroad built a new line that ran through Solano County, though it did not pass by Silveyville. Instead, it crossed through parcels of land owned by Thomas Dickson. This development prompted Silveyville residents to move closer to the tracks, in what is now the present-day downtown area of Dixon. Several Silveyville buildings were moved to the new location by Peter Timm on large flat cars, which used wooden rollers. The new community was named "Dicksonville." At this point, Dickson donated ten acres of land for the construction of a railway depot. Throughout the 1870s, the town grew as a shipping and marketing point for the agricultural industry, which continued to develop in Solano County.

In 1883, there was a fire that started in the Centennial Hotel Kitchen within Dixon. This fire burned down the residences, businesses, and gathering places. Several saloons and six churches were affected as well. Due to the fire, a new city ordinance required new construction projects to use brick and tin, and the first firehouse in the area was built in 1891. Dixon community faced another hazardous event in 1892, when a severe earthquake caused damage to several of the newly built brick buildings in the downtown area.

The proposed Project site is thought to have been used for agricultural production by the later decades of the 19th century, and presumably, has been kept in agricultural use from then through the present.

KNOWN CULTURAL RESOURCES

A summary of the record search, recorded resources, pedestrian survey, and Native American consultation that was performed for the Project site is included below.

Record Search

On February 22, 2023, records of previously recorded cultural resources and cultural resource investigations were examined by the Northwest Information Center (NWIC) at California State University, Sonoma for the project APE and within 0.5-mile of the APE boundaries. The NWIC records search revealed that 13 cultural studies have been conducted within a 0.5-mile radius of the proposed Project site, and that six of those studies at least partially overlap with the currently proposed APE.

The NWIC records search found seven cultural resources that have been previously recorded within 0.5-mile radius of the Project site. All seven previously recorded resources are described briefly in the *Cultural Resources Assessment*. The resources within the project vicinity consist of both prehistoric and historic era resources, including a multi-component site with both historic and prehistoric remains (P-48-001918), three prehistoric sites, including basalt bowl fragments (P-48-001914), abalone fragments (P-48-001915), lithic scatters (P-48-001929), and three historic era sites including two isolated finds including a porcelain sherd (P-48-001916), black and gold ceramic sculpture fragments (P-48-001917), and the Southern Pacific Railroad (P-48-000549). Two of the seven recorded cultural resources were potentially found lying within the project APE: P-48-001916 and P-48-001917.

P-48-001916 also known as resource 4144-I-028 or 4144-I-3, was recorded on May 9, 2018. It was encountered during an intensive pedestrian survey associated with Report S-053315, which covered an area immediately adjacent to, and just slightly overlapping with, the western boundary of the currently proposed Project APE. The cultural resource is an isolated find, consisting of a single sherd of a historic, multicolored, porcelain ceramic dish. The cultural resource was found near the western boundary of the currently proposed APE, reported by the NWIC as potentially lying within the current APE, but a later report in 2020, found the cultural resource as lying outside the project APE. This isolated find was encountered in the vicinity of a now graveled-over area in the project APE, an area identified by past reports and by historic map and aerial photograph analysis as an area that may potentially contain the remnants of an early to late 20th-century homestead/agricultural complex. Cultural resource P-48-001916 is a ceramic sherd and is not temporally diagnostic but could certainly date to the potential date of occupation/use of the now graveled-over area.

P-48-001917 also known as resource 4144-I-029 or 4144-I-4, was on May 9, 2018. The cultural resource is an isolated find that consists of two sherds of a historic era, black and gold, ceramic sculpture. P-48-001917 was encountered near P-48-001916, near the western boundary of the project APE. Similar as P-48-001916, this cultural resource was reported by the NWIC as potentially lying within the APE but a later report in 2020, found P-48-001917 as lying outside the project APE. The find was made in the vicinity of a now graveled-over area, thought to potentially contain the remnants of an early to late 20th-century homestead/agricultural complex based on past reports, and historic map and aerial photograph analysis. P-48-001917 is a nondiagnostic ceramic but could certainly date to the potential date of occupation/use of the now graveled-over area.

Historic maps and aerial photographs examined for the review include a 1914 Map of Napa and Solano Counties California (published by C.F. Weber & Co), Vacaville USGS 15-minute quadrangle maps from 1908 and 1953, and a series of aerial photographs dating from 1957 through 2020. The 1908 Vacaville map shows an east-west dirt road, which enters the Project site in its northern half. The route of this road

roughly corresponds to the dirt road still present within the APE today. A structure is depicted on the north side of the dirt road, likely within the current project boundaries. The 1953 Vacaville map shows the same dirt road but depicts an additional structure just east of the structure shown in the 1908 map, and a second additional structure in the west of the dirt road after it turns to the south in the western portion of the APE. This third structure likely stood just outside the western boundary of the APE.

A series of aerial photographs depicting the currently proposed Project site, dating from 1957, 1968, 1984, 1993, 2005, 2009, 2010, 2012, 2014, 2016, 2018, and 2020, were also visually examined. These photographs reveal that the APE was in agricultural use as early as 1957. By this time, the two ephemeral drainages which run across the APE from the northwest to the southeast have already been filled in/converted into flat agricultural land and are not discernable within the aerial photographs. The APE appears to be in continuous agricultural use throughout the period of study (1957 through 2020), with only slight changes in field size, crop row orientation, and dirt road construction within the boundaries of the APE discernable. The one exception to this pattern of land use consists of the construction of a small homestead or agricultural facility within the western half of the APE, in an approximately central location of the APE, within the more northern of the two previously noted ephemeral drainages. This feature first appears within the 1957 aerial photograph of the APE, though deliberately planted trees surrounding the homestead make it difficult to discern the number, size, or shape of the structures therein. By 1984, this feature was expanded considerably, stretching to the western extent of the currently proposed APE, with the footprint consisting of what appears to be a graded area covered in gravel. At this point, a larger rectangular structure (with an east-west orientation) and another rectangular structure just to the northeast of the first, are apparent. Within the 1984 photo, several of the trees which obscured the original complex have also been removed, revealing four structures, the northernmost and northeastern most of which are rectangular (with north/south orientations). However, it is unclear from the photograph series when these structures were built and/or which of these may be associated with the original construction of the complex. Conditions within this portion of the APE remain constant within photographs from 1984, 1993, and 2005. A 2009 photograph, however, reveals that this area was largely cleared of all structures and trees, and by 2012, the area had been entirely scraped clean, with no traces of the structures or trees associated with the complex still present. These barren conditions within this area of interest persist through a photograph from 2020.

The results of the findings of this historic map and aerial photograph analysis revealed the former location of a small homestead/agricultural facility within the APE, which was depicted as lying to the north of an east-west dirt road within the 1908 and 1953 Vacaville maps, and which was depicted as lying in a similar location within aerial photographs between 1957 and 2009. This same area was identified as having been the site of a historic era homestead/complex as early as 1916. Additionally, this same area was found to contain two previously recorded cultural resources (isolates P-48-001916, a nondiagnostic porcelain sherd, and P-48-001917, two nondiagnostic black and gold ceramic sherds) during a 2018 survey of the western portion of the current APE.

Pedestrian Survey

As part of the Cultural Resources Assessment, the project APE was surveyed on March 1, 2, 3, 15, 16, and 17, 2023. The Project site ground visibility was found to be excellent because the fields had recently been

cleared of crops and tilled. Traces of corn stalks were found throughout the APE, suggesting a fairly recent harvest. There were two small interruptions in this ground surface visibility and conditions, including a section in the northeastern corner of the APE approximately 518 feet from east to west and 643 feet from north to south, which was covered in knee-high or taller grasses during the survey (affording only 10 to 20 percent ground surface visibility), and a graveled area measuring approximately 289 feet north to south and 991 feet east to west in the western half of the APE. The graveled area was a location of a previously standing homestead/agricultural complex between 1957 and 2009, and during the aerial photograph analysis, was identified as the location of a historic property built in 1916. The topography of the APE can be described as flat, and there were no trees or shrubs observed within the entirety of the area surveyed. Generally, the Project site showed signs of having been artificially leveled over an extended period of time and repeatedly tilled and farmed.

Exposed soils were observed to be primarily of a dark brown loam, which at the time of the survey, was found to be heavily saturated with water from recent storms. Several artificial drainages were encountered, which are used to support the agricultural efforts on-site. These drainages run alongside the agricultural fields (the majority of which run east to west) to both supply water to the crops and provide drainage to the fields in times of heavy rains. Pipes were found extending from some of the walls of the drainages into what appeared to be dryer beds. These drainages are approximately three feet wide and two feet deep. One particularly long drainage cuts through the center of the site (running east/west), measuring approximately 5 feet wide and 6 feet deep.

Within the northeast quadrant of the project APE, there is a large basin that measures approximately 148 feet across and 230 feet long. Between the watery edge of this basin and the grass line is approximately 10 feet of exposed dirt, presumably from times when the basin has contained more water. The basin appears to be recent because the satellite imagery from 2020 does not show the feature. Several small dirt roads were found to intersect the Project site, including one which runs directly through the previous locations of the northern and southern historic drainages (now filled in). The survey found an additional third road that runs north to south direction along the western edge of the project APE.

Three cultural resources were identified over the course of the pedestrian survey. These are described in the *Cultural Resources Assessment*.

The first cultural resource was a large flake made of a river cobble that was found within the boundaries of the southern historic drainage, which is located approximately 755 feet west of Pedrick Road and roughly 492 feet north of the Project APE's southern boundary. The flake is mahogany in color and measures 2.375 inches long, with a 1.5-inch width and a base of roughly 1 inch. The resource was found partially buried in soils. It appears to have been worked on its ventral (interior) side and near its edge. Efforts were made to locate additional artifacts and or features in association with this find, but no additional cultural materials were found within a 82 feet radius. As a result, the finding was given the name "Dixon 257 Isolate 1." The flake's position and other relevant details were recorded, and the artifact was placed back in its original location.

The second cultural resource found during the survey was the anvil/hammer stone which is located approximately 1,788 feet east of the Project APE's western boundary. Notably, and similar to Dixon 257 Isolate 1, this isolated cultural resource was located within a previously noted, but now filled-in drainage. While it is possible that this item is a river-worn cobble that has since been mechanically modified by disc ploughing and other agricultural activities, the two pecking marks at the stone's base suggest that it was potentially used as an anvil or hammerstone during the prehistoric or protohistoric periods. This potential lithic artifact is brown in color, 7.5 centimeters long, 6.5 centimeters wide, and 5 millimeters thick. Efforts were made to locate additional artifacts and or features in association with this find, but no additional cultural materials were found within a 82 feet radius. As a result, the finding was given the name "Dixon 257 Isolate 2." The potential hammerstone's position and other relevant details were recorded, and the artifact was placed back in its original location.

The third cultural resource found was a small remnant of a structure, which dated to 1969, within the graveled-over section of the project APE, which as described above, once contained a homestead or agricultural complex. The lone trace of historic structures was found in the westernmost portion of the graveled-over area. It consists of a three-sided concrete wall, measuring 3 feet east to west at its north side, and approximately 8 feet from north to south on the east and west sides. Within these three-sided walls is a 2 feet diameter upright pipe, extending roughly 1.5 feet out of the ground, which appears to be a drainage pipe. The eastern side of this concrete wall possesses an incised inscription, which reads "3-25-1969 R. J." Presumably, this inscription means that the wall's construction and perhaps the pipe's installation was completed as of March 25, 1969, and that it was built by someone with the initials "R. J." The entire three-sided wall and pipe assemblage was found to lie within a small artificial drainage running from north to south. This finding was given the field name of "Dixon 257 – Structural Remain."

Outside of the three cultural resources that were found during the survey, a groundwater well or pumping complex was found. This structure consisted of a 20 feet long pipe that connects to an approximately 5 feet tall by 3 feet wide circular well, which is 40 inches in diameter. There are two PVC pipes, a little over 5 feet tall each, on the north and south side of the well. North adjacent and south adjacent of these PVC pipes are two far narrower metallic pipes, each capped and connected to a red-painted metallic wheel. Each of these PVC pipes is flanked by two PVC pipes that measure approximately 5.5 ft in height. Adjacent to those two poles are two red wheels. There are no temporally diagnostic items associated with this installation, though the materials are in good condition, and it generally appears to be a modern installation. No additional traces of structural remains, nor any signs of previously recorded isolates P-48-001916 (a porcelain ceramic dish sherd) or P-48-001917 (two sherds of a black and gold ceramic sculpture) were located in the vicinity of the now graveled-over area in the western central portion of the APE. The inability to relocate resources P-48-001916 and P-48001917 during the pedestrian survey suggest that either the resources are located further west (and thus outside the currently proposed APE) than believed by the NWIC or that the isolates have been moved off-site since their recording.

Surveyors also encountered modern trash, including plastic bottles, tarps, and other miscellaneous debris in various locations across the APE during the pedestrian survey. Some discarded piping and glass beer bottles were also found within the northeastern corner of the APE, adjacent to Pedrick Road. This refuse quite likely represents littering from passersby on the road.

Native American Consultation

On March 14, 2023, a request was sent to the NAHC requesting a records search of the Sacred Land File (SLF) for the Project site. NAHC responded on March 29, 2023, that the SLF search returned with negative results. The NAHC provided a list of individuals and groups to contact regarding potential cultural resources within the Project site. Letters were sent to the groups and individuals listed on March 29, 2023. Refer to Appendix N of this EIR for tribal consultation correspondence.

The City conducted Native American consultations under Senate Bill (SB) 18 (Chapter 905, Statutes of 2004), which requires local governments to consult with tribes prior to making certain planning decisions and requires consultation and notice for a general and specific plan adoption or amendments in order to preserve, or mitigate impacts to, cultural places that may be affected. In addition to SB 18 consultation, the City conducted tribal consultations under the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21080.3.1 subdivisions (b), (d) and (e)), also known as Assembly Bill (AB) 52, which requires consulting for projects within the City's jurisdiction and within the traditional territory of the Tribal Organizations who have previously requested AB 52 consultations with the City.

On May 30, 2023, the City sent letters via mail to three Native American Tribal Organizations in compliance with AB 52 and SB 18; refer to Appendix N for tribal consultation communications. The Yocha Dehe Wintun Nation responded in writing to the City on August 3, 2023, summarizing the consultation discussion that occurred between the City and the Yocha Dehe Wintun Nation. The Yocha Dehe Wintun Nation recommended the City to include cultural monitors during development and ground disturbance, cultural sensitivity training for any pre-project personnel, and incorporate Yocha Dehe Wintun Nation's Treatment Protocol into the mitigation measures for this project. The consultation was concluded on August 3, 2023.

3.5.2 REGULATORY SETTING

FEDERAL

National Historic Preservation Act

Enacted in 1966 and amended in 2000, the National Historic Preservation Act (NHPA) declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the Federal, State, and local levels. The NHPA authorized the expansion and maintenance of the NRHP, established the position of State Historic Preservation Officer (SHPO) and provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHPA, assisted Native American tribes to preserve their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

Section 106 Process

Through regulations associated with the NHPA, an impact to a cultural resource would be considered significant if government action would affect a resource listed in or eligible for listing in the NRHP. The NHPA codifies a list of cultural resources found to be significant within the context of national history, as

determined by a technical process of evaluation. Resources that have not yet been placed on the NRHP, and are yet to be evaluated, are afforded protection under the NHPA until shown to be not significant.

Section 106 of the NHPA and its implementing regulations (36 Code of Federal Regulations [CFR] Part 800) note that for a cultural resource to be determined eligible for listing in the NRHP, the resource must meet specific criteria associated with historic significance and possess certain levels of integrity of form, location, and setting. The criteria for listing on the NRHP are applied within an analysis when there is some question as to the significance of a cultural resource. The criteria for evaluation are defined as the quality of significance in American history, architecture, archaeology, engineering, and culture. This quality must be present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

- *Criterion A:* It is associated with events that have made a significant contribution to the broad patterns of our history; or
- *Criterion B:* It is associated with the lives of persons significant in our past; or
- *Criterion C:* It embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- *Criterion D:* It has yielded, or may be likely to yield, information important in prehistory or history.

Criterion D is usually reserved for archaeological resources. Eligible cultural resources must meet at least one of the above criteria and exhibit integrity, measured by the degree to which the resource retains its historical properties and conveys its historical character.

The Section 106 evaluation process does not apply to projects undertaken under City environmental compliance jurisdiction. However, should the undertaking require funding, permits, or other administrative actions issued or overseen by a Federal agency, analysis of potential impacts to cultural resources following the Section 106 process would likely be necessary. The Section 106 process typically excludes cultural resources created less than 50 years ago unless the resource is considered highly significant from the local perspective. Finally, the Section 106 process allows local concerns to be voiced and the Section 106 process must consider aspects of local significance before a significance judgment is rendered.

Secretary of the Interior’s Standards for the Treatment of Historic Properties

Evolving from the Secretary of the Interior’s Standards for Historic Preservation Projects with Guidelines for Applying the Standards that were developed in 1976, the Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings were published in 1995 and codified as 36 CFR 67.

Neither technical nor prescriptive, these standards are “intended to promote responsible preservation practices that help protect our Nation’s irreplaceable cultural resources.” “Preservation” acknowledges a resource as a document of its history over time, and emphasizes stabilization, maintenance, and repair of existing historic fabric. “Rehabilitation” not only incorporates the retention of features that convey

historic character, but also accommodates alterations and additions to facilitate continuing or new uses. “Restoration” involves the retention and replacement of features from a specific period of significance. “Reconstruction,” the least used treatment, provides a basis for recreating a missing resource. These standards have been adopted, or are used informally, by many agencies at all levels of government to review projects that affect historic resources.

American Indian Religious Freedom Act and Native American Graves and Repatriation Act

The American Indian Religious Freedom Act recognizes that Native American religious practices, sacred sites, and sacred objects have not been properly protected under other statutes. It establishes as national policy that traditional practices and beliefs, sites (including right of access), and the use of sacred objects shall be protected and preserved. Additionally, Native American remains are protected by the Native American Graves and Repatriation Act of 1990.

STATE

California Environmental Quality Act

CEQA requires a lead agency, in this case the City of Dixon, to determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1). A historical resource is a resource listed in, or determined to be eligible for listing, in the CRHR, a resource included in a local register of historical resources or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]). A resource shall be considered historically significant if it:

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, if it can be demonstrated that a project would cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required. PRC Section 21083.2[a], [b], and PRC Section 21083.2(g) define a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, the probability is high that it:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;

2. Has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Health and Safety Code

The discovery of human remains is regulated in accordance with California Health and Safety Code Section 7050.5, which states:

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation...until the coroner...has determined...that the remains are not subject to...provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible.... The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains. If the coroner determines that the remains are not subject to his or her authority and...has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

California Penal Code

Section 622.5 of the Penal Code provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands, but specifically excludes the landowner.

California Public Resources Code

PRC Sections 5097.9 to 5097.991 provide protection to Native American historical and cultural resources and sacred sites; identify the powers and duties of the Native American Heritage Commission (NAHC); require descendants to be notified when Native American human remains are discovered; and provide for treatment and disposition of human remains and associated grave goods.

California Register of Historic Places

Created in 1992 and implemented in 1998, the CRHR is “an authoritative guide in California to be used by State and local agencies, private groups, and citizens to identify the State’s historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change.” Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historical resources surveys or designated by local landmarks programs, may be nominated

for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the criteria modeled on the NRHP criteria.

Senate Bill 18 (Burton, Chapter 905, Statutes 2004)

SB 18, authored by Senator John Burton and signed into law by Governor Arnold Schwarzenegger in September 2004, requires local (city and county) governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places (“cultural places”) through local land use planning. This legislation, which amended §65040.2, §65092, §65351, §65352, and §65560, and added §65352.3, §65352.4, and §65562.5 to the Government Code; also requires the Governor’s Office of Planning and Research to include in the General Plan Guidelines advice to local governments for how to conduct these consultations. The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. These consultation and noticing requirements apply to adoption and amendment of both general plans (defined in Government Code §65300 *et seq.*) and specific plans (defined in Government Code §65450 *et seq.*).

Assembly Bill 978

In 2001, AB 978 expanded the reach of Native American Graves Protection and Repatriation Act of 1990 and established a state commission with statutory powers to assure that federal and state laws regarding the repatriation of Native American human remains and items of patrimony are fully complied with. In addition, AB 978 also included non-federally recognized tribes for repatriation.

Assembly Bill 52

AB 52, approved in September 2014, creates a formal role for California Native American tribes by creating a formal consultation process and establishing that a substantial adverse change to a tribal cultural resource has a significant effect on the environment. Tribal cultural resources are defined as:

- 1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - A) Included or determined to be eligible for inclusion in the CRHR;
 - B) Included in a local register of historical resources as defined in PRC Section 5020.1(k).
- 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1 (c). In applying the criteria set forth in PRC Section 5024.1 (c) the lead agency shall consider the significance of the resource to a California Native American tribe.

A cultural landscape that meets the criteria above is also a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. In addition, a historical resource described in PRC Section 21084.1, a unique archaeological resource as defined in PRC Section 21083.2(g), or a “non-unique archaeological resource” as defined in PRC Section 21083.2(h) may also be a tribal cultural resource if it conforms with above criteria.

AB 52 requires a lead agency, prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project, to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed Project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed Projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation.

LOCAL

Dixon General Plan 2040

The Dixon General Plan 2040 includes goals and policies to protect resources, including historical and cultural resources. The Land Use and Community Character Element contains the following goals and policies specific to archaeological, paleontological, and historic resources:

LAND USE AND COMMUNITY CHARACTER ELEMENT

GOAL LCC-3: Protect, preserve, and enhance the significant cultural and historic features of Dixon, recognizing their importance to the character of the community.

- Policy LCC-3.1: Foster the preservation, restoration, and compatible reuse of historically significant structures and sites.
- Policy LCC-3.2: Maintain opportunities for dialogue with local Native American groups regarding cultural resources in Dixon.
- Policy LCC-3.3: Require cultural resource assessments prior to the approval of development proposals on properties located in archaeologically sensitive areas. Assessments shall include a records search of the California Historical Resources Information System database at the Northwest Information Center and a pedestrian survey of the site to determine the potential for archaeological, paleontological, and historic resources as well as Native American remains.

3.5.3 IMPACTS AND MITIGATION MEASURES

THRESHOLD OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project is considered to have a significant impact on cultural or tribal cultural resources if it will:

- Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5;
- Disturb any human remains, including those interred outside of formal cemeteries;
- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is

geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k);
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.

IMPACTS AND MITIGATION

Impact 3.5-1: The proposed Project would not, with mitigation, cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5. (Less than Significant with Mitigation)

The findings of the Cultural Resources Assessment concluded that the Project site possesses a moderate to high potential to contain previously unrecorded historic era cultural resources. The moderate to high cultural potential of the graveled-over area in the western central portion of the Project site to contain historic era resources is suggested by: (1) the identification of indicators of a historic structure or structures in the vicinity within early 20th-century maps analyzed in the Cultural Resources Assessment and within mid- to late-20th-century historic aerial photographs analyzed in the Cultural Resources Assessment, and (2) by the identification of “Dixon 257 Structural Remain” which consists of historical structural remnants within the graveled-over area, in the form of a three-sided wall feature, likely a subterranean feature associated with a structure, which possessed an inscription of “3-25-1969 R. J.” presumably dating the remnants to the mid-20th century. While no other traces of historic-era materials were found in the graveled-over area during the pedestrian survey, and while the presence of these remnants alone likely does not constitute a cultural resource worthy of consideration for the CRHR or NRHP, the presence of the remnants of a structure over 50 years in age, along with cartographic and aerial photographic evidence suggesting that an above ground structure once stood in this area during the latter half of the 20th century, suggests that there is a moderate to high potential to find additional historic era features and/or artifacts within the vicinity of the gravel-covered area.

Although no historic resources are known to occur within the Project site, there is a moderate to high potential of discovery of previously unknown historic resources during ground-disturbing activities. This is a ***potentially significant*** impact.

LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Potentially Significant

MITIGATION MEASURE(S)

Mitigation Measure 3.5-1(a): *The Project proponent shall develop and implement an Archaeological Monitoring Program, whereby the Project proponents shall retain the services of an experienced archaeologist who will be present on-site to observe ground-disturbing activities requiring grubbing, grading, trenching, or excavation within defined Project areas. The Archaeological Monitor will be given access to inspect all ground surface and subsurface modifications, excavations, installations, equipment parking, and any other construction-related activities in the vicinity of the defined Project areas. These defined Project areas consist of the two (now filled-in) historic drainage areas, located in the northern and southern portions of the APE, and the graveled-over area, located within the central-western portion of the APE.*

The archaeological monitoring will consist of on-the-ground and close observation by an experienced archaeologist for any kind of archaeological or cultural remains that might be exposed during ground-disturbing construction activities. Construction activities will be monitored by following the construction equipment as it removes or modifies soils and vegetation, and may involve walking cuts or excavations after the machinery has passed, or standing to the side and observing the soil removal activity. The archaeologist on-site will be given “stop work authority” so that in the event that they observe a change in soil conditions and/or artifacts or structural remains, they shall bring all construction activities within a 164 ft radius of the area to a stop so that they may further assess the find. Further ground disturbances in the vicinity of the find will remain stopped while an assessment is underway and until the archaeologist on-site can provide recommendations for treatment of the discovery. If a potentially significant find cannot be avoided by the project, the retained archaeologist, who meets the Secretary of the Interior’s Professional Qualifications Standards, will develop an evaluation plan in consultation with the City that contains a research design to guide assessments of the resource’s significance and scientific potential.

Mitigation Measure 3.5-1(b): *The Project proponent shall develop and implement a Worker Awareness Training Program, where all construction personnel involved in ground-disturbing activities shall be trained in the recognition of possible cultural resources and the protection of such resources. The training program will inform all construction personnel of the procedures to be followed upon the discovery of archaeological materials, including Native American artifacts. Construction personnel will be instructed that cultural resources must be avoided and that all travel and construction activity must be confined to designated roads and areas. The training will include a review of the local, state, and federal laws and regulations related to cultural resources, as well as instructions on the procedures to be implemented should unanticipated resources be encountered during construction, including stopping work in the vicinity of the find and contacting the appropriate environmental compliance specialist.*

SIGNIFICANCE AFTER MITIGATION

Less than significant.

Implementation of Mitigation Measures 3.5-1(a) and 3.5-1(b) would reduce potential impacts of the proposed Project on inadvertently discovered archaeological resources to a less-than-significant level by ensuring that any resources inadvertently discovered during construction would be evaluated for significance and treated appropriately in consultation with a culturally affiliated Native American tribe.

Impact 3.5-2: The proposed Project would not, with mitigation, cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5. (Less than Significant with Mitigation)

The findings of the Cultural Resources Assessment concluded that the Project site possesses a moderate to high potential to contain previously unrecorded prehistoric and/or historic era cultural resources. Areas of particular concern include the locations of two (now filled in) historic drainages, which run from west to east across the entire span of the Project site, and the gravel-covered area located within the western central portion of the Project site. The two drainages are highlighted as having a moderate to high potential to contain prehistoric resources through both the noted presence of significant prehistoric resources located along drainages found elsewhere in the Dixon area and project vicinity as well as the presence of two isolated finds (Dixon 257 Isolate 1 and 2) encountered within the western portion of the Project site's southern historic drainage during the pedestrian survey. The presence of these resources at the ground surface within the historic drainage points towards the possibility for additional prehistoric resources to be located beneath the ground surface.

As noted above, the Cultural Resources Assessment revealed the presence of three cultural resources within the project APE. Additionally, there is a moderate to high potential that the Project site would contain previously unrecorded prehistoric and/or historic era cultural resources. This is a **potentially significant** impact.

LEVEL OF SIGNIFICANCE BEFORE MITIGATION

POTENTIALLY SIGNIFICANT

Mitigation Measure(s)

Mitigation Measures 3.5-2: Implement Mitigation Measures 3.5-1(a) and 3.5-1(b).

SIGNIFICANCE AFTER MITIGATION

Less than significant.

Implementation of Mitigation Measure 3.5-2 would reduce potential impacts of the proposed Project on inadvertently discovered archaeological resources to a less-than-significant level by ensuring that any resources inadvertently discovered during construction would be evaluated for significance and treated appropriately in consultation with a culturally affiliated Native American tribe.

Impact 3.5-3: The proposed Project would not disturb any human remains, including those interred outside of dedicated cemeteries. (Less than Significant with Mitigation)

No known human remains or cemeteries are located on the Project site. However, the records search performed as part of the Cultural Resources Assessment determined that large prehistoric villages with cemeteries and substantial buried components have been found in the past in the Dixon vicinity. Human

remains that may occur outside of formal burial sites are difficult to predict and could be encountered during construction and excavation activities.

While there is no indication that the project area contains human remains, there is the potential for previously unknown human remains to be discovered during construction activities. If any previously unknown human remains are identified on the Project site, the impact would be **potentially significant**.

LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Potentially Significant

MITIGATION MEASURE(S)

Mitigation Measure 3.5-3: *If an inadvertent discovery of human remains is made at any time during project-related construction activities or project planning, the following performance standards shall be met before implementing or continuing actions such as construction that may result in damage to or destruction of human remains. In accordance with the California Health and Safety Code (HSC), if human remains are encountered during ground-disturbing activities, the City shall immediately halt potentially damaging excavation in the area of the remains and notify the Solano County Coroner and a qualified archaeologist (meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology) to determine the nature of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (HSC Section 7050.5[b]).*

If the human remains are of historic age and are determined by the Solano County Coroner to be not of Native American origin, the City will follow the provisions of HSC Section 7000 et seq. regarding the disinterment and removal of non-Native American human remains.

If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (HSC Section 7050[c]). After the coroner's findings have been made, the archaeologist and the NAHC-designated Most Likely Descendant, in consultation with the landowner, shall determine the ultimate treatment and disposition of the remains. The responsibilities of the City for acting upon notification of a discovery of Native American human remains are identified in Public Resources Code Section 5097.9 et seq.

SIGNIFICANCE AFTER MITIGATION

Less than Significant

Mitigation Measure 3.5-3 would reduce the potential impacts of the proposed Project on inadvertently discovered human remains to a less-than-significant level by determining if the remains are Native American in origin and, if determined to be Native American, a Most Likely Descendant is assigned to determine the treatment.

Impact 3.5-4: The proposed Project could cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- **Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or is**
- **A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. (Less Than Significant with Mitigation)**

Prehistoric archaeological sites and isolates are tribal cultural resources; additionally, plants and other natural resources, as well as geographic locations can also be tribal cultural resources. Grading of original in situ soils could expose buried tribal cultural resources and features including sacred sites. Redevelopment and development of previously undeveloped areas have the potential to impact known and unknown tribal cultural and archaeological resources. Surface-level and subsurface archaeological sites and deposits can be affected by ground-disturbing activities associated with construction activities.

The Cultural Resource Assessment found no Native American sacred sites or human remains on the Project site. In accordance with requirements promulgated by SB 18 and AB 52, the City notified the Cachill Dehe Band of Wintun Indians of the Colusa Indian Community, Cortina Rancheria - Kletsel Dehe Band of Wintun Indians, and the Yocha Dehe Wintun Nation of the proposed Project on May 30, 2023, and invited the tribes to participate in consultation (see Appendix N). The Yocha Dehe Wintun Nation responded to the City on August 3, 2023. The Yocha Dehe Wintun Nation recommended the City to include cultural monitors during development and ground disturbance, cultural sensitivity training for any pre-project personnel, and incorporate Yocha Dehe Wintun Nation's Treatment Protocol into the mitigation measures for this project. The consultation was concluded on August 3, 2023. Based on information in the Cultural Resources Assessment and information provided by the Yocha Dehe Wintun Nation during consultation, there is a moderate to high potential of discovery of previously unknown tribal cultural resources during ground-disturbing activities. This is a ***potentially significant*** impact.

LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Potentially Significant

MITIGATION MEASURE(S)

Mitigation Measure 3.5-4(a): *Implement Mitigation Measures 3.5-1(a), 3.5-1(b), 3.5-2, and 3.5-3.*

Mitigation Measure 3.5-4(b): *A tribal cultural resources awareness brochure and training program for all personnel involved in the project's ground disturbing activities (site grading, utility infrastructure installation, construction, etc.) shall be developed in coordination with interested Native American Tribes. The brochure shall be distributed and the training will be conducted by Native American representatives, or tribal monitors from culturally affiliated Native American Tribes, before any stages of project implementation and construction activities begin on the Project site. The training may be done in coordination with the project archaeologist. The program will include relevant information regarding sensitive tribal cultural resources, applicable regulations and protocols for avoidance, and consequences of violating state laws and regulations. The program will describe appropriate avoidance and minimization measures for resources that have the potential to be located on the Project site and will outline what to do and whom to contact if any potential tribal cultural resources or archaeological resources are encountered. The program will underscore the requirement for confidentiality and culturally appropriate treatment of any find with cultural significance to Native Americans' tribal values. All operators of ground-disturbing equipment shall receive the training and sign a form that acknowledges receipt of the training.*

SIGNIFICANCE AFTER MITIGATION

Less than Significant

Mitigation Measures 3.5-4(a) and 3.5-4(b) would reduce the potential impacts of the proposed Project on inadvertently discovered tribal cultural resources to a less-than-significant level by determining if the remains are Native American in origin and, if determined to be Native American, a Most Likely Descendant is assigned to determine the treatment.

CUMULATIVE IMPACTS

The cumulative context for cultural resources includes Solano County for historic-era archaeological resources, and the Patwin traditional territory that includes Solano County, Yolo County, and portions of Colusa County, Lake County, Napa County, and Sacramento County. Historic-era archaeological resources tend to be concentrated within the city limits or immediately adjacent, but are not confined to historically urban areas.

Impact 3.5-5: Implementation of the proposed Project, in combination with other cumulative development, could contribute to the cumulative loss or alteration of historic-era and indigenous archaeological resources and/or human remains in archaeological contexts. (Less than Significant with Mitigation)

Cumulative development in Solano County, in portions of the Sacramento Valley identified as the territory of the Yocha Dehe Winton Nation Native American community, or the area of historic-era use and occupation in Solano County could result in significant cumulative impacts on cultural and tribal cultural

resources. Each individual project is subject to review under CEQA and is required to obtain necessary permits and approvals from federal and state resource agencies. As a result of these processes, each project would be required to avoid, minimize, and compensate for its impacts on sensitive cultural resources, such that the cumulative impact would be reduced, though not completely eliminated. Because not all such impacts from these other projects have been or can be reduced with certainty to less-than-significant levels, the loss of any cultural or tribal cultural resources would result in a potentially significant cumulative impact.

The Cultural Resources Assessment concluded that the Project site possesses a moderate to high potential to contain previously unrecorded prehistoric and/or historic era cultural resources. There is no indication that the Project site contains human remains; however, the possibility cannot be entirely discounted. The discovery of previously unknown archaeological resources or human remains, including those that could qualify as tribal cultural resources, is possible given the history of the area. As a result, development allowed under the proposed Project could result in a considerable contribution to the cumulative loss of cultural and tribal cultural resources in Solano County and in portions of the Patwin traditional territory, and this cumulative impact would be **potentially significant**.

LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Potentially Significant

MITIGATION MEASURE(S)

Mitigation Measure 3.5-5: Implement Mitigation Measures 3.5-1(a), 3.5-1(b), 3.5-2, and 3.5-3.

SIGNIFICANCE AFTER MITIGATION

Less than Significant

Implementation of Mitigation Measure 3.5-5 would establish protocols for the avoidance and safe handling of any cultural and tribal cultural resources encountered during implementation of the proposed Project. With implementation of this mitigation measure, the proposed Project's contribution to this cumulative impact would be less than considerable, and this impact would be reduced to a less-than-significant level.

The purpose of this EIR section is to identify the energy impacts that are likely to result from project implementation. Following this discussion is an assessment of consistency of the proposed Project with applicable policies and local plans. The Air Quality analysis is located in Section 3.2, and the Greenhouse Gas/Climate Change analysis is located in Section 3.6.

The analysis and discussion of the energy impacts in this section focuses on the proposed Project's consistency with local, regional, statewide, and federal energy conservation efforts and discusses the context of these planning efforts as they relate to the proposed Project. Disclosures of the project's estimated energy consumption are provided.

Information in this section is based in part on the following resource:

- *Traffic Impact Analysis for the Campus 257 NEQSP* (Flecker Associates, 2023),¹ and
- *California Emissions Estimator Model* (CalEEMod v. (v.2020.1.1.21) (CAPCOA, 2023).²

During the NOP comment period for the EIR, there were no comments received relating to this environmental topic.

3.6.1 ENVIRONMENTAL SETTING

ENERGY CONSUMPTION

Energy in California is consumed from a wide variety of sources. Fossil fuels (including gasoline and diesel fuel, natural gas, and energy used to generate electricity) are the most widely used form of energy in the State. However, renewable sources of energy (such as solar and wind) are growing in proportion to California's overall energy mix. A large driver of renewable sources of energy in California is the State's current Renewable Portfolio Standard (RPS), which requires the State to derive at least 60 percent of electricity generated by 2030, and to achieve zero-carbon emissions by 2045 (as passed in September 2018, under Senate Bill 100). The 2021 SB 100 Joint Agency Report was published in 2021, which found that the long-term goals contained in SB 100 are technically achievable through multiple pathways, although achieving 100 clean electricity would increase the total annual electricity system cost by 6 percent relative to the cost under the state's Renewables Portfolio Standard requirement of having at least 60 percent clean electricity by the end of 2030. These estimates will change over time as markets change, new technologies are commercialized, and additional factors such as grid reliability are included in future analyses.

Overall, in 2019, California's per capita energy usage was ranked second-lowest in the nation. California's per capita rate of energy usage has remained relatively constant since the 1970's. Many State regulations since the 1970s, including new building energy efficiency standards, vehicle fleet efficiency measures, as well as growing public awareness, have helped to keep per capita energy usage in the State in check.

The consumption of non-renewable energy (i.e., fossil fuels) associated with the operation of passenger, public transit, and commercial vehicles results in GHG emissions that contribute to global climate change.

¹ Flecker Associates. 2023. *Traffic Impact Analysis for the Campus 257 NEQSP*. December 6, 2023.

² California Air Pollution Control Officers Association (CAPCOA). 2023. CalEEMod (v.2022.1.121). Available: www.caleemod.com

Alternative fuels such as natural gas, ethanol, and electricity (unless derived from solar, wind, nuclear, or other energy sources that do not produce carbon emissions) also result in GHG emissions and contribute to global climate change.

Electricity Consumption

California relies on a regional power system composed of a diverse mix of natural gas, renewable, hydroelectric, and a very small amount of nuclear generation resources. In 2020, nearly one-half of the electricity supply came from facilities outside of the State. Much of the power delivered to California from states in the Pacific Northwest was generated by wind. States in the Southwest delivered power generated at coal-fired power plants, at natural gas-fired power plants, and from nuclear generating stations.³ In 2020, approximately 41 percent of California’s utility-scale net electricity generation was fueled by natural gas. In addition, about 48 percent of the State’s utility-scale net electricity generation came from renewable sources, such as solar, wind, geothermal, hydropower, and biomass. Nuclear energy powered an additional 11 percent. The amount of electricity generated from coal was effectively zero. The percentage of renewable resources as a proportion of California’s overall energy portfolio is increasing over time, as directed the State’s Renewable Portfolio Standard (RPS).⁴

According to the California Energy Commission (CEC), total statewide electricity consumption increased from 166,979 gigawatt-hours (GWh) in 1980 to 228,038 GWh in 1990, which is an estimated annual growth rate of 3.66 percent. The statewide electricity consumption in 1997 was 246,225 GWh, reflecting an annual growth rate of 1.14 percent between 1990 and 1997.⁵ Statewide consumption was 274,985 GWh in 2010, an annual growth rate of 0.9 percent between 1997 and 2010. In 2021, the latest year for which data is available, statewide consumption was 277,205 GWh.⁶ In 2022, electricity consumption in Solano County was 2,880 GWh.⁷

PG&E is a publicly traded utility company that, under contract with the California Public Utilities Commission (CPUC), generates, purchases, and distributes energy. PG&E’s service area covers 70,000 square miles, roughly extending north to south from Eureka to Bakersfield and east to west from the Sierra Nevada to the Pacific Ocean. PG&E’s electricity distribution system consists of 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines.

PG&E’s electricity is generated from a combination of traditional sources, such as coal-fired plants, nuclear power plants, and hydroelectric dams, as well as newer sources of energy, such as wind turbines and photovoltaic plants, or “solar farms.” “The grid,” or bulk electric grid, is a network of high-voltage

³ United States Energy Information Administration (U.S. EIA). 2022. California End-Use Energy Consumption 2022, Estimates. Available at: <https://www.eia.gov/beta/states/states/ca/overviewhttps://www.eia.gov/tools/faqs/faq.php?id=33&t=6>

⁴ United States Energy Information Administration (U.S. EIA). 2022. California End-Use Energy Consumption 2022, Estimates. Available at: <https://www.eia.gov/beta/states/states/ca/overviewhttps://www.eia.gov/tools/faqs/faq.php?id=33&t=6>

⁵ United States Energy Information Administration (U.S. EIA). 2023. Table C14. Total Energy Consumption Estimates per Capita by End-Use Sector, Ranked by State, 2019. Available at: https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_sum/html/rank_use_capita.html&sid=US

⁶ California Energy Commission. 2022. California Electrical Energy Generation. Available: <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-electrical-energy-generation>

⁷ California Energy Commission. 2024. Energy Almanac. Available: <http://www.ecdms.energy.ca.gov/elecbycounty.aspx>

transmission lines that link power plants to the PG&E system. The distribution system, comprising lower-voltage secondary lines, is at the street and neighborhood level. It consists of overhead or underground distribution lines, transformers, and individual service “drops” that connect to individual customers.

In addition to its base plan, PG&E has three plan options, known as Solar Choice options and Green Saver, which give customers the option of purchasing energy from solar resources. The first Solar Choice option provides up to 50 percent of a customer’s energy from solar resources, while the other option provides up to 100 percent of a customer’s energy from solar resources, and the Green Saver option provides up to 90 percent of a customer’s energy from solar resources.

Table 3.6-1 outlines PG&E’s power mix in 2021, compared to the power mix for the state. The table identifies the renewable and non-renewable energy sources for PG&E. It should be noted that some GHG free sources are not considered renewable (e.g., nuclear is GHG free but not renewable).

TABLE 3.6-1. PG&E AND THE STATE OF CALIFORNIA POWER MIX IN 2021

ENERGY RESOURCES	PG&E OPTION: BASE	PG&E OPTION: 50% SOLAR CHOICE	PG&E OPTION: 100% SOLAR	PG&E OPTION: GREEN SAVER	CALIFORNIA POWER MIX 2021
Eligible Renewable	47.7%	70.9%	93.9%	89.9%	33.6%
Biomass and waste	4.2%	2.1%	0.0%	0.0%	2.3%
Geothermal	5.2%	2.6%	0.0%	0.0%	4.8%
Small hydroelectric	1.8%	0.9%	0.0%	0.0%	1.0%
Solar	25.7%	59.8%	93.9%	89.9%	14.2%
Wind	10.9%	5.5%	0.0%	0.0%	11.4%
Coal	0.0%	0.0%	0.0%	0.0%	3.0%
Large Hydroelectric	4.0%	2.0%	0.0%	0.0%	9.2%
Natural Gas	8.9%	7.4%	0.0%	0.0%	37.9%
Nuclear	39.3%	19.7%	0.0%	0.0%	9.3%
Other	0.0%	0.0%	0.0%	0.0%	0.2%
Unspecified	0.0%	0.0%	6.1%	10.1%	6.8%

SOURCE: PG&E. 2021. 2021 POWER CONTENT LABEL. AVAILABLE: [HTTPS://WWW.ENERGY.CA.GOV/FILEBROWSER/DOWNLOAD/4653](https://www.energy.ca.gov/filebrowser/download/4653). ACCESSED: NOVEMBER 10, 2023.

^A. ELECTRICITY FROM TRANSACTIONS THAT ARE NOT TRACEABLE TO SPECIFIC GENERATION SOURCES ARE CLASSIFIED AS UNSPECIFIED SOURCES OF POWER.

Oil

The primary energy source for the United States is oil, which is refined to produce fuels like gasoline, diesel, and jet fuel. Oil is a finite, nonrenewable energy source. World consumption of petroleum products has grown steadily in the last several decades. As of 2019, world consumption of oil had reached approximately 98 million barrels per day. The United States, with approximately five percent of the world's population, accounts for approximately 19 percent of world oil consumption, or approximately 18.6 million barrels per day.⁸ The transportation sector relies heavily on oil. In California, petroleum-based fuels currently provide approximately 95 percent of the State's transportation energy needs.

Natural Gas/Propane

The State produces approximately 12 percent of its natural gas, while obtaining 22 percent from Canada and 65 percent from the Rockies and the Southwest. PG&E is the largest publicly-traded utility in California and provides natural gas for residential, industrial, and agency consumers within the San Joaquin County area. PG&E's natural gas (i.e., methane) delivery system includes 42,000 miles of natural gas distribution pipelines and 6,700 miles of transmission pipelines. PG&E's gas transmission system serves approximately 15 million energy customers in California. The system is operated under an inspection and monitoring program in real time on a 24-hour basis, with leak inspections, surveys, and patrols continuously taking place along the pipelines. Gas delivered by PG&E originates in gas fields in California, the Southwest, the Rocky Mountains, and Canada. Transmission pipelines send natural gas from the fields and storage facilities. The smaller distribution pipelines deliver gas to individual businesses or residences.

As of March 2022, California produced 11.4 billion cubic feet of natural gas per month.⁹ PG&E is the largest publicly-owned utility in California and provides natural gas for residential, industrial, and agency consumers within the San Joaquin County area. In 2022, natural gas consumption in San Joaquin County was 191 million therms.¹⁰

3.6.2 REGULATORY SETTING

FEDERAL

Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the Act, the National Highway Traffic and Safety Administration, which is part of the U.S. Department of Transportation (USDOT), is responsible for establishing additional vehicle standards and for revising existing standards.

⁸ United States Energy Information Administration (U.S. EIA). 2020c. Independent Statistics and Analysis. Frequently Asked Questions. Last updated September 4, 2020. Available at: <https://www.eia.gov/tools/faqs/faq.php?id=33&t=6>

⁹ United States Energy Information Administration (U.S. EIA). 2022. California Natural Gas Marketed Production. Available at: <https://www.eia.gov/dnav/ng/hist/n9050ca2M.htm>

¹⁰ California Energy Commission. 2023. Gas Consumption By County. Available: <http://www.ecdms.energy.ca.gov/gasbycounty.aspx>

Since 1990, the fuel economy standard for new passenger cars has been 27.5 mpg. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is determined on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the U.S. The Corporate Average Fuel Economy (CAFE) program, which is administered by the EPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, the USDOT is authorized to assess penalties for noncompliance.

STATE

Statutes Setting Target for the Use of Renewable Energy for the Generation of Electricity

CALIFORNIA RENEWABLES PORTFOLIO STANDARD

Senate Bill X1-2 (Stats. 2011, 1st Ex. Sess., Ch. 1) set aggressive statutory targets for renewable electricity, culminating in the requirement that 33 percent of the State's electricity come from renewables by 2020. This legislation applies to all electricity retailers in the State, including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities were required to meet renewable energy goals of 20 percent of retail sales from renewables by the end of 2013, 25 percent by the end of 2016, and 33 percent by the end of 2020. (See Pub. Utility Code, Section 399.11 et seq. [subsequently amended].) SB 350, discussed below, increases the Renewable Portfolio Standard to require 50 percent of electricity generated to be from renewables by 2030. (Pub. Utility Code, Section 399.11, subd (a); see also Section 399.30, subd. (c)(2).) In 2018, Senate Bill 100 (Stats. 2018, Ch. 312) revised the above-described deadlines and targets so that the State will have to achieve a 50 percent renewable resources target by December 31, 2026 (instead of by 2030) and achieve a 60 percent target by December 31, 2030. The legislation also establishes a State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045.

Statutes and CARB Regulations Addressing the Carbon Intensity of Petroleum-based Transportation Fuels

ASSEMBLY BILL 1493, PAVLEY CLEAN CARS STANDARDS

In 2002, the Legislature enacted Assembly Bill 1493 ("Pavley Bill") (Stats. 2002, ch. 200), which directed CARB to develop and adopt regulations that achieve the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks beginning with model year 2009. (See Health and Safety Code Section 43018.5.) In September 2004, pursuant to this directive, CARB approved regulations to reduce GHG emissions from new motor vehicles beginning with the 2009 model year. These regulations created what are commonly known as the "Pavley standards." In September 2009, CARB adopted amendments to the Pavley standards to reduce GHG emissions from new motor vehicles through the 2016 model year.

These regulations created what are commonly known as the “Pavley II standards.” (See California Code of Regulations, Title 13, Sections 1900, 1961, and 1961.1 et seq.)

In 2012, CARB adopted an Advanced Clean Cars (ACC) program aimed at reducing both smog-causing pollutants and GHG emissions for vehicles model years 2017-2025. This historic program, developed in coordination with the USEPA and NHTSA, combined the control of smog-causing (criteria) pollutants and GHG emissions into a single coordinated set of requirements for model years 2015 through 2025. The regulations focus on substantially increasing the number of plug-in hybrid cars and zero-emission vehicles in the vehicle fleet and on making fuels such as electricity and hydrogen readily available for these vehicle technologies. The components of the ACC program are the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles in the 2018 through 2025 model years. (See California Code of Regulations, Title 13, Sections 1900, 1961, 1961.1, 1961.2, 1961.3, 1965, 1968.2, 1968.5, 1976, 1978, 2037, 2038, 2062, 2112, 2139, 2140, 2145, 2147, 2235, and 2317 et seq.)

It is expected that the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 34 percent below 2016 levels by 2025, all while improving fuel efficiency and reducing motorists’ costs.

Building Code Requirements Intended to Reduce Energy Consumption

CALIFORNIA ENERGY CODE

The California Energy Code (CCR Title 24, Part 6), which is incorporated into the Building Energy Efficiency Standards, was first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Although these standards were not originally intended to reduce GHG emissions, increased energy efficiency results in decreased GHG emissions because energy efficient buildings require less electricity and thus less consumption of fossil fuels, which emit GHGs. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.

The most recent Title 24 standards are the 2022 Title 24 standards. Buildings permitted on or after January 1, 2023, must comply with the 2022 Standards. The California Energy Commission updates the standards every three years. The CEC estimates that the 2022 Title 24 standards will reduce 10 million metric tons of GHG over 30 years. When compared to the 2019 Title 24 standards, the 2022 update focuses on: encouraging electric heat pump technology and use; establishing electric-ready requirements when natural gas is installed; expanding solar photovoltaic (PV) system and battery storage standards; and strengthening ventilation standards to improve indoor air quality.

CALIFORNIA GREEN BUILDING STANDARDS CODE

The purpose of the California Green Building Standards Code (CalGreen) (CCR Title 24, Part 11) is to improve public health and safety and to promote the general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or

positive environmental impact and encouraging sustainable construction practices in the following categories: 1) planning and design; 2) energy efficiency; 3) water efficiency and conservation; 4) material conservation and resource efficiency; and 5) environmental quality. CalGreen, which became effective on January 1, 2011, instituted mandatory minimum environmental performance standards for all ground-up new construction of commercial, low-rise residential uses, and State-owned buildings, as well as schools and hospitals. The mandatory standards require the following:

- 20 percent mandatory reduction in indoor water use relative to baseline levels;
- 50 percent construction/demolition waste must be diverted from landfills;
- Mandatory inspections of energy systems to ensure optimal working efficiency; and
- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particle boards.

The voluntary standards require the following:

- Tier I: 15 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 65 percent reduction in construction waste, 10 percent recycled content, 20 percent permeable paving, 20 percent cement reduction, and cool/solar reflective roof.
- Tier II: 30 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 75 percent reduction in construction waste, 15 percent recycled content, 30 percent permeable paving, 30 percent cement reduction, and cool/solar reflective roof.

The latest version of CalGreen is the 2022 CalGreen Code, which became effective on January 1, 2023. Between 2010 and 2022, continuous updates and additions have been made to CALGreen, including water conservation and recycling, electric vehicle infrastructure and charging, and changes intended to eliminate conflicts with the California Energy Code, which is Part 6 of Title 24.

TITLE 20

CCR Title 20 requires manufacturers of appliances to meet state and federal standards for energy and water efficiency. The CEC certifies an appliance based on a manufacturer's demonstration that the appliance meets the standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwashers; clothes washers and dryers; cooking products; electric motors; low-voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing each type of appliance covered under the regulations, and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains three types of standards for appliances: federal and state standards for federally regulated appliances, state standards for federally regulated appliances, and state standards for non-federally regulated appliances.

SENATE BILL 1

SB 1 (Murray) (August 2006) established a \$3 billion rebate program to support the goal of the state to install rooftop solar energy systems with a generation capacity of 3,000 megawatts through 2016. SB 1 added sections to the Public Resources Code, including Chapter 8.8 (California Solar Initiative), that require building projects applying for ratepayer-funded incentives for photovoltaic systems to meet minimum energy efficiency levels and performance requirements. Section 25780 established that it is a goal of the state to establish a self-sufficient solar industry. The goals included establishing solar energy systems as a viable mainstream option for homes and businesses within 10 years of adoption and placing solar energy systems on 50 percent of new homes within 13 years of adoption. SB 1, also termed “Go Solar California,” was previously titled “Million Solar Roofs.”

SOLID WASTE

AB 939, AB 341, and AB 1826. In 1989, AB 939, known as the Integrated Waste Management Act (PRC Sections 40000 *et seq.*), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25 percent by 1995 and 50 percent by 2000.

AB 341 (Chapter 476, Statutes of 2011 [Chesbro]) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75 percent of solid waste generated be source-reduced, recycled, or composted by 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the state’s policy goal.

AB 1826 (Chapter 727, Statutes of 2014, effective 2016) requires businesses to recycle their organic waste (i.e., food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste) depending on the amount of waste they generate per week. This law also requires local jurisdictions across the state to implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. The minimum threshold of organic waste generation by businesses subject to the law decreases over time, which means an increasingly greater proportion of the commercial sector will be required to comply.

LOCAL

Yolo Solano Air Pollution Control District

The Yolo-Solano Air Quality Management District (YSAQMD) is the air district with jurisdiction over the project site. YSAQMD’s mission is to protect human health and property from the harmful effects of air pollution. The District was established in 1971 by a joint powers agreement between the Yolo and Solano County Boards of Supervisors. The District is governed by a 14-member Board of Directors composed of local elected representatives. The District has jurisdiction over all of Yolo County and the northeast portion

of Solano County, including Vacaville, Dixon and Rio Vista. The District includes approximately 1,500 square miles and a population of approximately 354,000 people. To assist lead agencies and project applicants as they prepare air quality analyses, the District produced the *Handbook for Assessing and Mitigating Air Quality Impacts* (2007).

Dixon General Plan

The Dixon General Plan contains the following goals and policies that are relevant to energy:

NATURAL ENVIRONMENT

GOAL NE-2. Use energy and water wisely and promote reduced consumption.

Policy NE-2.1 Promote energy conservation throughout the community and encourage the use of renewable energy systems to supplement or replace traditional building energy systems.

Policy NE-2.3 Participate in regional energy efficiency financing programs such as low-interest revolving loan funds, the California Comprehensive Residential Building Retrofit Program, California First, and the Property Assessed Clean Energy (PACE) program that enable property owners to obtain low-interest financing for energy improvements.

Policy NE-2.7 Conserve water through the provision of water-efficient infrastructure, drought tolerant plantings, and greywater usage to support public parks and landscaped areas.

GOAL NE-5. Minimize air, soil, noise, and water pollution as well as community exposure to hazardous conditions.

Policy NE-5.2 Continue to use the Yolo-Solano Air Quality Management District's Handbook for Assessing and Mitigating Air Quality Impacts for environmental review of proposed development projects.

Policy NE-5.3 Require dust abatement actions for all new construction and redevelopment projects, consistent with the Yolo-Solano Air Quality Management District's Best Available Control Measures.

MOBILITY ENVIRONMENT

GOAL M-1. Plan, design, construct, and maintain a transportation network that provides safe and efficient access throughout the city and optimizes travel by all modes.

Policy M-1.1 Maintain a transportation network that is efficient and safe, that removes barriers (e.g. accessibility near freeways and rail lines), and that optimizes travel by all modes.

Policy M-1.3 Design, construct, operate, and maintain city streets based on a "complete streets" concept that enables safe, comfortable, and attractive access and travel for pedestrians, bicyclists, motorists, and transit users of all ages and abilities.

Policy M-1.5 Increase accessibility for and use of streets by pedestrians, bicyclists, and transit riders through appropriate roadway modifications and improvements.

Policy M-1.6 Ensure that improvements to the transportation network support a land use pattern that connects the community, integrates neighborhoods, provides multi-modal access and facilitates travel among Dixon's neighborhoods.

GOAL M-2. Manage the city's transportation system to minimize congestion, improve flow and improve air quality.

Policy M-1.2 Ensure that the street network functions for the automobile, yet is easily accessible, safe, and convenient for other modes of travel and for users of all ages, abilities, and income levels.

Policy M-2.2 Prioritize pedestrian, bicycle, and automobile safety over traffic flow.

Policy M-2.3 Maintain a minimum level of service of "D" citywide for planning purposes.

Policy M-2.8 Require traffic studies for new development to include analysis of intersections, roadway segments, and alternative modes of transportation and facilities that may be affected by development proposals.

Policy M-2.9 Recognize uncongested access to the freeway from employment areas in the north of the city as a competitive advantage for Dixon and prioritize improvements accordingly.

GOAL M-3. Facilitate convenient and safe pedestrian, bicycle, transit, and vehicular connections between neighborhoods and to destinations in Dixon and neighboring communities.

Policy M-3.1 Enhance pedestrian, bicycle and transit connections to, from and between parks, community centers, neighborhoods, recreation facilities, libraries, schools, commercial centers and other community destinations in Dixon for all users.

Policy M-3.2 Ensure that new development provides physical connections to surrounding neighborhoods.

Policy M-3.3 Foster an integrated multi-use trail system that provides universally accessible, safe, pleasant and convenient links within the city and to destinations beyond.

Policy M-3.4 Expand the regional bicycle and pedestrian trail network, in collaboration with the Solano Transportation Authority, surrounding communities, and other partners.

Policy M-3.5 Increase regional transit ridership to and from Dixon and expand shuttle service to Amtrak.

Policy M-3.6 Participate in and contribute to regional programs to improve commute alternatives and efficiency.

Policy M-3.8 Prioritize the transit needs of senior, disabled, minority, low-income, and transit-dependent persons in making decisions regarding transit services and in compliance with the Americans with Disabilities Act.

Policy M-3.8 Encourage provision of a variety of transportation services for seniors and community members with limited mobility

Policy M-3.9 Increase safety at train crossings with improved gate technology and signal coordination, in partnership with Solano Transportation Authority, Union Pacific Rail Road, and Amtrak.

GOAL M-4. Facilitate travel within the city and to surrounding communities by alternatives to the

Policy M-4.1 Promote cycling and walking as healthy, affordable and viable transportation options in Dixon for all residents through education, incentives, citywide events such as Sunday Streets events, and programs such as Safe Routes to School and Safe Routes for Seniors programs.

Policy M-4.2 Promote roadway safety for all road users through education and awareness programs and campaigns

Policy M-4.3 Increase bicycle ridership for work, errands and leisure trips.

Policy M-4.4 Regularly maintain bicycle and pedestrian paths and trails, including sweeping, weed abatement and surface maintenance

Policy M-4.5 Encourage pedestrian-friendly design features in new development such as sidewalks, street trees, on-street parking, gathering spaces, gardens, outdoor furniture, art and interesting architectural details.

Policy M-4.6 Enhance the existing bicycle/pedestrian network by adding planting pockets with street trees to provide shade, calm traffic and enhance the pedestrian realm, prioritizing routes that link destinations such as employment centers, commercial centers, schools and downtown Dixon.

Policy M-4.7 Continue to implement traffic calming measures to slow traffic on local and collector residential streets, and contribute to the safety of non-motorized road users.

Policy M-4.8 Require new or redesigned parking lots to optimize pedestrian and bicycle safety and provide green infrastructure for aesthetic and stormwater management purposes.

Metropolitan Transportation Commission/Association of Bay Area Governments

The Metropolitan Transportation Commission (MTC) is the transportation planning, financing and coordinating agency for the nine-county San Francisco Bay Area, which includes but is not limited to Solano County. The MTC was created by the California Legislature in 1970 to plan, finance and coordinate the Bay Area's transportation system. The MTC's scope over the years has expanded to address other regional issues, including housing and development. The MTC, alongside the Association of Bay Area

Governments (ABAG), was responsible for developing *Plan Bay Area 2050*, a 30-year regional plan that charts the course for the Bay Area. *Plan Bay Area 2050* is the Bay Area's regional long-range plan adopted by MTC and the ABAG. The plan was developed in collaboration with Bay Area residents, partner agencies, and nonprofit organizations.

3.6.3 IMPACTS AND MITIGATION MEASURES

ENERGY CONSERVATION THRESHOLDS OF SIGNIFICANCE

Consistent with Appendices F and G of the CEQA Guidelines, energy-related impacts are considered significant if implementation of the proposed Project would do the following:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency;

In order to determine whether or not the proposed Project would result in a significant impact on energy use, this EIR includes an analysis of proposed Project energy use, as provided under *Impacts and Mitigation Measures* below.

Impact 3.6-1: Project implementation would not result in the inefficient, wasteful, or unnecessary use of energy resources. (Less than Significant)

According to the CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. In particular, the proposed Project would be considered “wasteful, inefficient, and unnecessary” if it were to violate State and federal energy standards and/or result in significant adverse impacts related to Project energy requirements, energy inefficiencies, energy intensiveness of materials, effects on local and regional energy supplies or on requirements for additional capacity, compliance with existing energy standards, effects on energy resources, or transportation energy use requirements. In addition, the project could have a significant energy impact if it would conflict or create an inconsistency with an applicable plan, policy, or regulation for renewable energy or energy efficiency.

The proposed Project includes various characteristics that reduce the inefficient, wasteful, or unnecessary use of energy. Overall, a wide variety of additional Project features would be implemented that would substantially reduce energy emissions. For example, beyond simply complying with State requirements such as the energy efficiency requirements of the latest version of the California Title 24 Energy Efficiency Standards, the Project would exceed the Title 24 Building Envelope Energy Efficiency Standards by at least 1 percent and all appliances to be installed will meet or exceed Title 24 requirements. The Project is also anticipated to produce approximately solar photovoltaic (PV) for on-site use, consistent with the requirements of Title 24.

Moreover, it should be noted that, over time, electrification of the vehicles will increase due to state requirements, and state and national trends. Electric charging infrastructure would be installed on the property to facilitate the conversion of the truck fleet to zero-emission electric trucks as they become available in the market and used for truck deliveries to and from the facility.

The amount of energy used by the proposed Project during operation would include the amount of energy used by project buildings and outdoor lighting, and the fuel used by vehicle trips generated during Project construction and operation, fuel used by off-road construction vehicles during construction activities, and fuel used by project maintenance activities during project operation. The following discussion provides a detailed calculation of energy usage expected for the proposed Project, as provided by applicable modelling software (i.e., CalEEMod v2022.1) and the CARB EMFAC2021). Additional assumptions and calculations are provided within Appendix B of this EIR.

ELECTRICITY AND NATURAL GAS

Electricity and natural gas used by the proposed Project would be used primarily to generate energy for project buildings, as well as for outdoor parking lot lighting. As shown in further detail in the CalEEMod modeling outputs provided in Appendix B, “Energy” is one of the categories that was modeled for GHG emissions. As also shown in the CalEEMod modeling outputs as provided in Appendix B, the proposed Project is anticipated to consume approximately 22,497,084 kWh of electricity per year and approximately 29,498,638 kBtu per of natural gas per year. Moreover, this is likely a conservative estimate, given that the CalEEMod model does not account for the latest version of Title 24. Furthermore, this also does not account for the vast majority of the project’s energy efficiency commitments, which would likely drive down the energy usage much further than identified herein.

ON-ROAD VEHICLES (OPERATION)

The proposed Project would generate vehicle trips (i.e., passenger vehicles for employees and heavy-duty trucks for hauling) during its operational phase. Compliance with applicable State laws and regulations would limit idling and a part of a comprehensive regulatory framework that is implemented by the CARB. A description of project operational on-road mobile energy usage is provided below.

According to the *Traffic Impact Analysis for the Campus 257 NEQSP* prepared for the proposed Project (2023), and as described in more detail in Section 3.15 of this EIR, the proposed Project would increase total vehicle trips by approximately 17,083 net new daily trips. In order to calculate operational on-road vehicle energy usage, De Novo Planning Group used fleet mix data from the CalEEMod (v.2022.1.1.21) output for the proposed Project, and Year 2027 gasoline and diesel MPG (miles per gallon) factors for individual vehicle classes as provided by EMFAC2021, to derive weighted average gasoline and diesel MPG factors for the vehicle fleet as a whole. Based on these calculations, as provided in Appendix B, upon full buildout, the proposed Project would generate operational vehicle trips that would use a total of approximately 4,067 gallons of gasoline and 793 gallons of diesel per day, or 1,484,562 gallons of gasoline and 289,281 gallons of diesel per year.

The proposed Project’s buildings would be designed and constructed in accordance with the City’s latest adopted energy efficiency standards, which are based on the State’s Title 24 Energy Efficiency Standards for Nonresidential Buildings and Green Building Code Standards. Beyond simply complying with State requirements such as the energy efficiency requirements of the latest version of the California Title 24 Energy Efficiency Standards, consistent with Mitigation Measure 3.3-1 in Section 3.3 of the EIR, the project would exceed the Title 24 Building Envelope Energy Efficiency Standards by at least 1 percent and all appliances to be installed will meet or exceed Title 24 requirements. These standards include minimum

energy efficiency requirements related to building envelope, mechanical systems (e.g., heating, ventilation, and air conditioning [HVAC] and water heating systems), and indoor and outdoor lighting, are widely regarded as some of the most advanced and stringent building energy efficiency standards in the country. Moreover, as specified in Chapter 5, Part 11 of the Title 24 standards, the proposed Project would be required to incorporate electrical conduit to facilitate future installation of EV charging infrastructure. In addition, as specified in Subchapter 6, Part 6 of the Title 24 standards, the proposed Project would be required to design the proposed buildings to structurally accommodate future installation of a rooftop solar PV system. As such, the design of the proposed Project would facilitate the future commitment to renewable energy resources. Therefore, building energy consumption would not be considered wasteful, inefficient, or unnecessary.

ON-ROAD VEHICLES (CONSTRUCTION)

The proposed Project would also generate on-road vehicle trips during project construction (from construction workers and vendors travelling to and from the project site). De Novo Planning Group estimated the vehicle fuel consumed during these trips based on the assumed construction schedule, vehicle trip lengths and number of workers per construction phase as provided by CalEEMod, and Year 2025 gasoline and diesel MPG factors provided by EMFAC2021 (year 2025 factors were used to represent a conservative analysis, as the energy efficiency of construction activities is anticipated to improve over time). For the sake of simplicity and to be conservative, it was assumed that all construction worker light duty passenger cars and truck trips use gasoline as a fuel source, and all medium and heavy-duty vendor trucks use diesel fuel. Table 3.6-2, below, describes gasoline and diesel fuel consumed during each construction phase (in aggregate). As shown, the vast majority of on-road mobile vehicle fuel used during the construction of the proposed Project would occur during the building construction phase. See Appendix B.2 of this EIR for a detailed accounting of construction on-road vehicle fuel usage estimates.

TABLE 3.6-2: ON-ROAD MOBILE FUEL USAGE BY PROJECT CONSTRUCTION ACTIVITIES – BY PHASE

<i>CONSTRUCTION PHASE</i>	<i>TOTAL GALLONS OF GASOLINE FUEL(B)</i>	<i>TOTAL GALLONS OF DIESEL FUEL(B)</i>
Demolition	127	-
Grading (Phase 1)	356	250
Grading (Phase A)	170	-
Grading (Phase B)	178	-
Building Construction (Phase 1)	79,565	365
Building Construction (Phase A)	47,886	365
Building Construction (Phase B)	47,886	365
Paving	560	-
Architectural Coatings	47,757	-
Total	224,485	1,345

NOTE: (A) PROVIDED BY CAL EEMOD OUTPUT. (B) SEE APPENDIX B OF THIS EIR FOR FURTHER DETAIL

SOURCE: (V.2022.1.1.21); EMFAC2021.

OFF-ROAD EQUIPMENT (CONSTRUCTION)

Off-road construction equipment would use diesel fuel during the construction phase of the proposed Project. A non-exhaustive list of off-road constructive equipment expected to be used during the construction phase of the proposed Project includes: forklifts, generator sets, tractors, excavators, and dozers. Based on the total amount of CO₂ emissions expected to be generated by the proposed Project (as provided by the CalEEMod output), and standard conversion factors (as provided by the U.S. Energy Information Administration), the proposed Project could use a total of approximately 87,693 gallons of diesel fuel for off-road construction equipment. Detailed calculations are provided in Appendix B.

State laws and regulations would limit idling from both on-road and off-road diesel-powered equipment and are part of a comprehensive regulatory framework that is implemented by the CARB. Additionally, as a practical matter, it is reasonable to assume that the overall construction schedule and process would be designed to be as efficient as feasible in order to avoid excess monetary costs. For example, equipment and fuel are not typically used wastefully due to the added expense associated with renting the equipment, maintaining it, and fueling it. Therefore, the opportunities for further future efficiency gains during construction are limited. For the foregoing reasons, it is anticipated that the construction phase of the project would not result in wasteful, inefficient, and unnecessary consumption of energy.

CONCLUSION

The proposed Project would use energy resources for the operation of project buildings (natural gas and electricity), outdoor lighting (electricity), on-road vehicle trips (e.g., gasoline and diesel fuel) generated by the proposed Project, and off-road and on-road construction activities associated with the proposed Project (e.g. diesel fuel). Each of these activities would require the use of energy resources. The proposed Project would be responsible for conserving energy, the mitigation measures provided throughout this EIR, as well as through the implementation of statewide and local measures.

The proposed Project would comply with all applicable federal, State, and local regulations regulating energy usage. Other statewide measures, including those intended to improve the energy efficiency of the statewide passenger and heavy-duty truck vehicle fleet (e.g., the Pavley Bill and the Low Carbon Fuel Standard), would improve vehicle fuel economies, thereby conserving gasoline and diesel fuel. These energy savings would continue to accrue over time. Moreover, the proposed Project would comply with the City's General Plan goals, objectives and policies related to energy conservation that are relevant to this analysis.

The proposed Project would comply with all existing energy standards and would not be expected to result in significant adverse impacts on energy resources. For these reasons, the proposed Project would not cause an inefficient, wasteful, or unnecessary use of energy resources nor cause a significant impact on any of the energy-related thresholds as described by the *CEQA Guidelines*. This is a **less than significant** impact.

MITIGATION MEASURE(S)

None required

CUMULATIVE IMPACTS (ENERGY)

Energy impacts can be defined by region or by a political subdivision. Therefore, the cumulative setting for energy impacts includes the State of California.

Impact 3.6-2: Implementation of the proposed Project, in combination with other cumulative development, would not result in the inefficient, wasteful, or unnecessary use of energy resources. (Less than Significant)

The CEQA Guidelines require consideration of the potentially significant energy implications of a Project. CEQA requires mitigation measures to reduce “wasteful, inefficient and unnecessary” energy usage (Public Resources Code Section 21100, subdivision [b][3]). According to the CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. In particular, the proposed Project would be considered “wasteful, inefficient, and unnecessary” if it were to violate State and federal energy standards and/or result in significant adverse impacts related to Project energy requirements, energy inefficiencies, energy intensiveness of materials, cause significant impacts on local and regional energy supplies or generate requirements for additional capacity, fail to comply with existing energy standards, otherwise result in significant adverse impacts on energy resources, or conflict or create an inconsistency with applicable plan, policy, or regulation.

Projects constructed within the State would be in compliance with all applicable federal, State, and local regulations regulating energy usage. For example, PG&E, the electric and natural gas provider to the proposed Project, is responsible for the mix of energy resources used to provide electricity for its customers, and it is in the process of implementing the statewide RPS to increase the proportion of renewable energy (e.g., solar and wind) within its energy portfolio. PG&E has achieved at least a 33 percent mix of renewable energy resources in 2020 and is on track to achieve 60 percent mix of renewable energy by 2030. Other statewide measures, including those intended to improve the energy efficiency of the statewide passenger and heavy-duty truck vehicle fleet (e.g., the Pavley Bill and the Low Carbon Fuel Standard), would improve vehicle fuel economies, thereby conserving gasoline and diesel fuel. These energy savings would continue to accrue over time.

Development throughout the State would comply with all existing energy standards and would not be expected to result in significant adverse impacts on energy resources. For these reasons, cumulative development would not cause an inefficient, wasteful, or unnecessary use of energy resources nor cause a significant impact on any of the thresholds as described by the *CEQA Guidelines*. Therefore, cumulative impacts associated with energy would be ***less than significant***.

MITIGATION MEASURE(S)

None required

This section describes geology and soils conditions within the Project site and provides an analysis of potential impacts associated with implementation of The Campus project.

No comments were received during the NOP comment period in regard to geology and soils.

The analysis included in this section is based, in part, on statements, data, and figures provided by the following reference materials:

- City of Dixon General Plan 2040 (May 2021);
- City of Dixon General Plan 2040 Environmental Impact Report, Public Review Draft (July 2020); and
- *Geotechnical Exploration, Dixon 257, Dixon, California*, prepared by ENGEO Incorporated and dated February 4, 2022.

3.7.1 ENVIRONMENTAL SETTING

METHODOLOGY

A Geotechnical Exploration (Geotechnical Report) was prepared for the Project site; refer to Appendix L. The Geotechnical Report characterizes the subsurface conditions at the site and provides geotechnical recommendations for design and development of The Campus project. The Geotechnical Report is the primary information source used for this Environmental Setting section, unless otherwise noted.

GEOLOGIC CONDITIONS

The Project site is located in the Great Valley geomorphic province, an elongate, northwest-trending structural trough bound by the Coast Range on the west and the Sierra Nevada on the east. The northern portion of the Great Valley is commonly referred to as the Sacramento Valley. The Sacramento Valley has been, and is presently being filled with alluvium transported by powerful river systems originating in the surrounding mountains. These sediments of various ages underlie the site and are estimated to be several thousand feet thick at the site. The origin and character of these deposits is related to the paleo-climactic conditions and the nature of the ancient depositional environment.

Surface deposits at the Project site are mapped as Holocene Alluvium (Qa) and Holocene Basin Deposits (Qb).¹ Holocene alluvium is described as young unweathered gravel, sand, and silt deposited by present-day stream and river systems. The Basin Deposits are derived from the same sources as modern alluvium but are predominantly dark-gray to black fine-grained silt and clay. Typical of the alluvial sequence in Sacramento Valley, underlying the Holocene deposits are older Pleistocene deposits. Pleistocene Modesto Formation (Qml) (11,700 to 42,000 years old) is mapped in small areas surrounding the site and is likely below the Holocene deposits. These Pleistocene alluvial formations consist of gravel, sand, silt, and clay that generally show evidence of aging such as increased density, weathering, and cementation.

The Project site is relatively flat with surface grades ranging from approximately 55 to 65 feet. The site topography slopes gently downward towards the southeast.

¹ ENGEO Incorporated, 2022. *Geotechnical Exploration, Dixon 257, Dixon, California*. February 4, 2022. Figure 3.

SEISMICITY

Seismic hazards include both rupture (surface and subsurface) along active faults and ground shaking, which can occur over wider areas. Ground shaking, produced by various tectonic phenomena, is the principal source of seismic hazards in areas devoid of active faults. All areas of the State are subject to some level of seismic ground shaking.

The Northern California region contains numerous active earthquake faults. An active fault is defined by the California Geologic Survey as one that has had surface displacement within Holocene time (about the last 11,700 years). The Project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone and no known surface expression of active faults is believed to exist within the site.

Although fault rupture is not anticipated, an earthquake in the region could generate ground shaking at the site. Numerous small earthquakes occur every year in the Northern California region, and larger earthquakes have been recorded and can be expected to occur in the future. The Uniform California Earthquake Rupture Forecast (UCERF3) estimates the 30-year probability for a magnitude 6.7 or greater earthquake in Northern California Region at approximately 95 percent.

Table 3.7-1 summarizes the distance to the fault rupture surface (Rrup) and the associated moment magnitude for nearby seismic sources used for the National Seismic Hazard Maps, which are incorporated into the California Building Code (CBC). Data was obtained using the United States Geological Survey (USGS) Unified Hazard Tool. These results represent fault sources contributing at least one percent to the seismic hazard at the site; gridded or areal sources are not presented.

TABLE 3.7-1: NEARBY SEISMIC SOURCES

SOURCE	DISTANCE TO THE FAULT RUPTURE SURFACE (RRUP)		MOMENT MAGNITUDE (Mw)
	KM	MILES	
Great Valley 06 (Midland) alt1 [0]	7	4	6.75
Great Valley 04a Trout Creek [2]	21	13	7.07
Hunting Creek – Berryessa [0]	37	23	7.20
Great Valley 04b Gordon Valley [2]	23	14	6.46
Great Valley 03a Dunnigan Hills [0]	18	11	6.18

SOURCE: USGS UNIFIED HAZARD TOOL (DYNAMIC CONTERMINOUS U.S. 2014 (UPDATE) v4.2.0) (USGS, N.D.).
 INPUT SETTINGS - LATITUDE: 38.4768, LONGITUDE: -121.8082; DEAGGREGATION AT PEAK GROUND ACCELERATION (PGA) FOR 2,475-YEAR RETURN PERIOD; SITE CLASS D.

LIQUEFACTION

Liquefaction is a secondary seismic hazard that can result in reduced foundation support and ground settlement from an earthquake. The Dixon General Plan identifies the Project site as having moderate liquefaction susceptibility.² As discussed in the Geotechnical Report, medium dense saturated sand was

² City of Dixon, 2021. *General Plan 2040*. May, 2021. Figure NE-5.

encountered in borings and cone penetration tests (CPTs) at the Project site; these deposits could be susceptible to liquefaction.

The Geotechnical Report evaluated liquefaction potential using the data from the CPTs, as the CPT data is continuous and generally more reliable in estimating liquefaction-induced settlement than drilled borings. The analysis indicated a potentially liquefiable layer between approximately 21 to 22 feet at 1-CPT1, potentially liquefiable layers between approximately 19 to 24 feet and 28 to 30 feet at 1-CPT2, and a potentially liquefiable layer between approximately 20.5 and 21 feet at 1-CPT3; refer to Appendix L. The theoretical liquefaction-induced ground settlement was calculated at up to approximately 0.25-inch at 1-CPT1 and 1-CPT3, and about 2.25 inches at 1-CPT2.

Based on the findings published by Ishihara in 1985 and Youd and Garris in 1995, a sufficiently thick layer of non-liquefiable soil that overlies liquefiable layers can provide a capping effect, which has been observed to result in less ground surface deformation than indicated by theoretical liquefaction analyses. At the exploration locations where potentially liquefiable sand layers up to approximately 5 feet thick were encountered, there was at least 19 feet of overlying non-liquefiable soil. Based on the layer thicknesses, the Ishihara charts predict a nonoccurrence of surface effects (ground settlement) from liquefaction. Therefore, the Geotechnical Report concludes that the liquefiable layers at the Project site are too deep to cause bearing capacity failure for shallow foundations and the capping effects will likely reduce the theoretical settlements to less than 0.5-inch.

OTHER GEOLOGIC HAZARDS

Expansive Soils

Expansive soils have shrink-swell capacity, meaning they may swell when wetted and shrink when dried. Expansive soils can be hazardous to structures and may cause cracks in building foundations, distortion of structural elements, and warping of doors and windows. The higher the clay content of a soil, the higher its shrink-swell potential.

Borings conducted as part of the Geotechnical Report identified potentially expansive clay near the surface of the Project site. Laboratory testing of the borings indicates that the Project site soil exhibits low to very high shrink/swell potential with variations in moisture content.

Landslides and Lateral Spreading

Landslides are the result of the down-slope movement of unstable hillside materials under the influence of weathering and gravity over time. Sudden landslides and debris flows can be triggered by heavy rainfall, excavation of weak slopes, and earthquake shaking, among other factors. Lateral spreading refers to a type of landslide that forms on gentle slopes and has rapid fluid-like movement. The potential for lateral spreading is present where open banks and unsupported cut slopes provide a free face (unsupported vertical slope face).

Based on topographic and lithologic data, the Geotechnical Report concludes that the risk of landslides and lateral spreading is considered low to negligible at the Project site.

Earthquake-Induced Landslide Zones are areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required. There are no earthquake-induced landslide seismic hazard zones mapped within the Project site.³

Subsidence

Land subsidence is a gradual settling or sudden sinking of the Earth's surface due to removal or displacement of subsurface earth materials. Common causes of land subsidence include: aquifer-system compaction associated with groundwater withdrawals; drainage of organic soils; underground mining; and natural compaction or collapse.

Based on topographic and lithologic data, the Geotechnical Report concludes that the risk of subsidence is considered low to negligible at the Project site.

PALEONTOLOGICAL RESOURCES

The following information is from the City of Dixon General Plan EIR.

Paleontological resources are the fossil remains or traces of past life forms, including both vertebrate and invertebrate species, as well as plants. The City of Dixon is located in the Sacramento Valley and is mainly composed of alluvial sediments. The City and Planning Area is underlain with Quaternary-age alluvium, consisting of an unstratified mix of sand, silt, clay, and gravel. According to a records search of the University of California Museum of Paleontology Specimen Search, no paleontological resources have been found within Dixon. However, multiple resources have been discovered throughout Solano County and in neighboring cities with similar geological features as the City. Therefore, there is a possibility for paleontological resources to be discovered at the Project site.

3.7.2 REGULATORY SETTING

FEDERAL

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act of 1977 established the National Earthquake Hazards Reduction Program (NEHRP). Under the NEHRP, four federal agencies have responsibility for long-term earthquake risk reduction: the U.S. Geological Survey (USGS), the National Science Foundation (NSF), the Federal Emergency Management Agency (FEMA), and the National Institute of Standards and Technology (NIST). NEHRP's mission includes improved understanding, characterization, and prediction of hazards and vulnerability; improvements of building codes and land use practices; risk reduction through post-earthquake investigation and education; development and improvement of design and construction techniques; improvement of mitigation capacity; and accelerated application of research results.

³ California Geological Survey, 2024. Earthquake Zones of Required Investigation. Available: <https://maps.conservation.ca.gov/cgs/EQZApp/app/>. Accessed: January 5, 2024.

STATE

Earthquake Fault Zoning Act (Alquist-Priolo Act)

The State of California Alquist-Priolo Earthquake Fault Zoning Act (1972) was established to mitigate the hazard of surface faulting to structures for human occupancy. Pursuant to the act, the State geologist has established regulatory zones (known as earthquake fault zones) around surface traces of active faults. These have been mapped for affected cities, including the City of Gardena. Application for a development permit for any project within a delineated earthquake fault zone shall be accompanied by a geologic report, prepared by a geologist registered in the State of California, that is directed to the problem of potential surface fault displacement through a Project site.

Seismic Hazards Mapping Act

The Seismic Hazard Mapping Act (SHMA) was adopted by the State in 1990 to protect the public from the effects of non-surface fault rupture earthquake hazards, including strong ground shaking, liquefaction, seismically induced landslides, ground amplification or other ground failure caused by earthquakes. The goal of the act is to minimize loss of life and property by identifying and mitigating seismic hazards. The California Geological Survey (CGS) is the primary agency responsible for the implementation of the SHMA. The CGS prepares maps identifying seismic hazard zones and provides them to local governments, which include areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures. SHMA requires responsible agencies to only approve projects within these zones following a site-specific investigation to determine if the hazard is present, and if so, the inclusion of appropriate mitigation(s). In addition, the SHMA requires real estate sellers and agents at the time of sale to disclose whether a property is within one of the designated seismic hazard zones.

California Building Standards Code, Title 24

Title 24 of the California Code of Regulations (CCR) provides State regulations that govern the design and construction of buildings, associated facilities, and equipment. These regulations are also known as California Building Standards Code (CBSC) (reference California Health and Safety Code § 18909). Cities and counties are required by State law to enforce CCR Title 24, and may adopt ordinances making more restrictive requirements than provided by CCR Title 24 due to local climatic, geological, or topographical conditions.

National Pollutant Discharge Elimination System (NPDES)

NPDES permits are required for discharges to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, oceans, dry stream beds, wetlands, and storm sewers that are tributary to any surface water body. NPDES permits are issued under the Federal CWA, Title IV, Permits and Licenses, Section 402 (33 USC 466 *et seq.*).

The RWQCB issues these permits in lieu of direct issuance by the EPA, subject to review and approval by the EPA Regional Administrator (EPA Region 9). The terms of these NPDES permits implement pertinent provisions of the CWA and implementing regulations, including pre-treatment, sludge management, effluent limitations for specific industries, and anti-degradation. In general, the discharge of pollutants is

to be eliminated or reduced as much as practicable so as to achieve the CWA’s goal of “fishable and swimmable” navigable (surface) waters. Technically, all NPDES permits issued by the RWQCB are also Waste Discharge Requirements issued under the authority of the CWA.

These NPDES permits regulate discharges from publicly owned treatment works, industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges. NPDES permits are issued for five years or less, and are therefore to be updated regularly. Individual projects in the City that disturb more than one acre would be required to obtain NPDES coverage under the California General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit). The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) describing BMPs the discharger would use to prevent and retain storm water runoff. The SWPPP must contain a visual monitoring program; a chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a waterbody listed on the 303(d) list for sediment.

A Phase II Small Municipal Separate Storm Sewer (MS4) General Permit was adopted by the SWRCB on February 5, 2013 (Water Quality Order No. 2013-0001-DWQ, NPDES NO. CAS000004, as amended).

LOCAL

Solano County Multi-Jurisdictional Hazard Mitigation Plan

The Solano County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) is a Countywide plan that identifies risks and ways to minimize damage from natural and human-caused hazards. The County MJHMP was last comprehensively updated in March 2022. The purpose of the MJHMP is to guide hazard mitigation planning to better protect the people and property of the County from the effects of hazard events. The MJHMP was also developed to ensure the County and participating jurisdictions’ continued eligibility for certain federal disaster assistance. Volume II of the MJHMP contains the annex for participating jurisdictions within the County, including the City of Dixon.

Dixon General Plan

The Dixon General Plan contains the following goals and policies that are relevant to geology and soils:

NATURAL ENVIRONMENT

GOAL NE-4. Protect life and property from natural and human-made hazards and provide quick, effective response to disasters and emergencies

Policy NE-4.1 Protect life, the natural environment, and property from hazards due to seismic activity and geologic hazards.

Policy NE-4.2 Ensure that structures intended for human occupancy and critical facilities are designed and constructed to retain their structural integrity and key operational capabilities when

subjected to seismic activity or geologic hazards, in accordance with the California Building Code.

Policy NE-4.3 In areas of high liquefaction risk (see Figure NE-5), require that project proponents submit geotechnical investigation reports and demonstrate that the project conforms to all recommended mitigation measures prior to City approval.

Policy NE-4.4 Require new development to deploy best practices for minimizing erosion and promoting slope stabilization in areas that have been subject to erosion or landslides.

GOAL NE-5. Minimize air, soil, noise, and water pollution as well as community exposure to hazardous conditions.

Policy NE-5.5 Encourage development to minimize grading related to the topography and natural features in order to limit soil erosion.

Policy NE-5.6 Require construction projects that disturb 10,000 square feet of ground cover revegetate graded areas with native or locally-appropriate vegetation to restore biological diversity and minimize erosion and soil instability

Policy NE-7 Coordinate with Yolo and Solano counties, the Resource Conservation District, and the Natural Resources Conservation Service in implementing programs to reduce soil erosion by wind and water and prevent soil contamination.

City of Dixon Northeast Quadrant Specific Plan (NEQSP)

The NEQSP contains the following policies that are relevant to geology and soils:

RESOURCE MANAGEMENT ELEMENT

Soil Protection and Grading

1. All development plans submitted for City review and approval shall provide an erosion and sediment control plan in compliance with the City's grading control ordinance. Required measures will include, seeding of graded areas and watering during grading activities to reduce wind erosion.
2. If created, slopes should be rounded at top and bottom. Steep slopes (greater than 3: 1) and large retaining walls (higher than five feet) should be avoided.
3. Soil exposed during grading which will be left exposed and will not be under active construction during the rainy season (assumed to occur between October 15 and April 15) should be promptly replanted with native compatible, drought-resistant vegetation.
4. Prior to the development of any individual project area, a master conceptual grading plan should be submitted which identifies the overall grading concept for the project area.
5. Drainage problems resulting from poor soil permeability should be reduced through development of gravel subdrains and the creation of swales and channels to convey runoff.

Dixon Municipal Code

Dixon Municipal Code Title 16, *Buildings and Construction*, adopts various codes and safety precautions that regulate development activities within the City. Chapter 16.03, *Building Code*, adopts an amended version of the 2022 California Building Code (Title 24, California Code of Regulations, Part 2) of the State of California, and appendices, as amended to address local conditions. Chapter 16.08, *Building Standards Administrative Code*, adopts the 2022 California Building Standards Administrative Code (Title 24, California Code of Regulations, Part 1), which contains administrative regulations of the California Building Standards Commission and administrative regulations of all State agencies that implement or enforce building standards.

Chapter 16.04, *Grading Control*, contains the City's grading control ordinance. The ordinance sets forth rules and regulations to control land disturbances, landfill, soil storage, pollution, and erosion and sedimentation resulting from new development and redevelopment, and establishes procedures for the issuance, administration and enforcement of permits for such activities.

Chapter 16.06, *Storm Water Control*, contains the City's storm water control ordinance. The ordinance addresses City requirements for stormwater management and discharge control, including controlling erosion, sedimentation, and other pollutant runoff.

Title 17, *Subdivision Regulations*, contains the City's Subdivision Ordinance, which requires that soils reports, seismic analysis, bank stabilization, and other factors pertinent to the particular site location be provided as part of the application for a tentative subdivision map, unless the City Engineer determines that no preliminary analysis is necessary.

3.7.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact related to geology and soils if it would:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving;
 - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42;
 - Strong seismic ground shaking;
 - Seismic-related ground failure, including liquefaction; and
 - Landslides.
- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;

- Be located on expansive soil, as defined in Tables 18-1-D of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property;
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water; and/or
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

METHODOLOGY AND ASSUMPTIONS

The Geotechnical Report analyzed subsurface conditions at the Project site using a variety of sources to provide geotechnical recommendations for design of the project. Sources used in the Geotechnical Report included a field exploration on January 3 and 4, 2022 that included drilling 11 borings and advancing three Cone Penetration Test (CPT) soundings at various locations on the Project site; soil laboratory testing; and a review of historical USGS topographic maps and aerial photographs to identify former site features.

The following impact thresholds are scoped out because there would be no impact; refer to Section 6.0, Effects Not Found to be Significant.

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42; and
 - Landslides.
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water;

IMPACTS AND MITIGATION

Impact 3.7-1: Implementation of the proposed Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking or seismic-related ground failure, including liquefaction. (Less than Significant)

An earthquake of moderate to high magnitude generated within the Northern California region has the potential to cause considerable ground shaking at the Project site.

Strong ground shaking can result in liquefaction. While the Dixon General Plan identifies the Project site as having moderate liquefaction susceptibility,⁴ an engineering analyses performed as part of the Geotechnical Report concluded that the liquefiable layers at the Project site are too deep to cause bearing capacity failure for shallow foundations and the capping effects will likely reduce the theoretical settlements to less than 0.5-inch.

⁴ City of Dixon, 2021. *General Plan 2040*. May, 2021. Figure NE-5.

The project proposes a mixed-use development consisting of residential and non-residential uses, as well as infrastructure improvements to serve the Project site and NEQSP area. Development would be required to comply with the provisions of the CBC, which includes design requirements to mitigate the effects of potential hazards associated with seismic ground shaking. Further, the project would be reviewed by the City for conformance with the Dixon General Plan, Municipal Code, and other regulations that address seismic safety issues and would be required to provide adequate mitigation for existing and potential hazards identified. With the implementation of the policies in the General Plan, as well as applicable State and City codes, potential impacts associated with a seismic event, including seismic ground shaking and liquefaction, would be *less than significant*.

MITIGATION MEASURE(S)

None Required.

Impact 3.7-2: Implementation of the proposed Project would not result in substantial soil erosion or the loss of topsoil. (Less than Significant)

Implementation of The Campus project would provide for development and associated improvements that would involve some land clearing, mass grading, and other ground-disturbing activities that could temporarily increase soil erosion rates during and shortly after project construction. Construction-related erosion could result in the loss of a substantial amount of nonrenewable topsoil and could adversely affect water quality in nearby surface waters.

The project would be evaluated for conformance with the CBSC, Dixon General Plan, Municipal Code, and other regulations that address construction activities and soil erosion. Each phase of project construction disturbing one acre or more of soil would be required to obtain coverage under the Construction General Permit prior to issuance of a grading permit. The Construction General Permit requires development and implementation of a SWPPP and monitoring plan, which must include erosion-control and sediment-control BMPs that would meet or exceed measures required by the Construction General Permit to control stormwater quality degradation due to potential construction-related pollutants. Further, project construction would be required to implement construction site control BMPs in compliance with the City's NPDES Permit (MS4). Project construction activities would also be subject to the City's grading control ordinance, which controls land disturbances, landfill, soil storage, pollution, and erosion and sedimentation resulting from new development and redevelopment, and establishes procedures for the issuance, administration and enforcement of permits for such activities; and storm water control ordinance, which addresses City requirements for stormwater management and discharge control, including controlling erosion, sedimentation, and other pollutant runoff. With implementation of the policies in the General Plan, as well as applicable State and City requirements, potential impacts associated with erosion and loss of topsoil would be *less than significant*.

MITIGATION MEASURE(S)

None Required.

Impact 3.7-3: Implementation of the proposed Project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. (Less than Significant)

Landslide and Lateral Spreading: Based on topographic and lithologic data, the Geotechnical Report concludes that the risk of landslides and lateral spreading is considered low to negligible at the Project site.

Subsidence: Based on topographic and lithologic data, the Geotechnical Report concludes that the risk of subsidence is considered low to negligible at the Project site.

Liquefaction: Refer to Impact 3.7-1 regarding the potential for liquefaction.

Collapse: Collapsible soils occur predominantly where Holocene-age alluvial fan and wash sediments have been deposited during rapid run-off events. Examples of common problems associated with collapsible soils include tilting floors, cracking or separation in structures, sagging floors, and nonfunctional windows and doors. Existing alluvium within the Project site and surrounding area may be susceptible to collapse and excessive settlements, which could create the risk of hydroconsolidation if these soils were exposed to excessive moisture.

Conclusion: The Project site has a low to negligible potential for landslide, lateral spreading, subsidence, and liquefaction. Soils in the Project site could be susceptible to collapse or excessive settlement, causing structural damage. Structures and infrastructure improvements associated with The Campus Project would be evaluated for conformance with the CBSC, the Dixon General Plan, the Municipal Code, and other regulations. In addition, the Geotechnical Report includes recommendations for design and development of The Campus project that would ensure impacts from problematic soils are minimized. Implementation of CBSC and the Municipal Code requirements related to seismic and geologic conditions, as well as compliance with General Plan policies, would ensure that future development projects are evaluated for potential geologic and seismic risks and that potential risks are adequately addressed. Compliance with applicable State and City regulations would reduce potential impacts associated with unstable geologic and soil conditions to *less than significant*.

MITIGATION MEASURE(S)

None Required.

Impact 3.7-4: Implementation of the proposed Project would not be located on expansive soil, as defined in Tables 18-1-D of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property. (Less than Significant)

Expansive soils may swell considerably when wetted and shrink when dried. Expansive soils can be hazardous to structures and may cause cracks in building foundations, distortion of structural elements, and warping of doors and windows. Structural damage, such as warping and cracking of improvements, and rupture of underground utility lines, may occur if the expansive potential of soils is not considered

during the design and construction of all improvements. The Geotechnical Report concludes that Project site soil exhibits low to very high shrink/swell potential with variations in moisture content.

Structures and infrastructure improvements associated with The Campus Project would be evaluated for conformance with the CBSC, the Dixon General Plan, the Municipal Code, and other regulations. In addition, the Geotechnical Report includes recommendations for design and development of The Campus project that would ensure impacts from problematic soils are minimized. Implementation of CBSC and the Municipal Code requirements related to seismic and geologic conditions, as well as compliance with General Plan policies, would ensure that future development projects are evaluated for potential geologic and seismic risks and that potential risks are adequately addressed. Compliance with applicable State and City regulations would reduce potential impacts associated with expansive soils to ***less than significant***.

MITIGATION MEASURE(S)

None Required.

Impact 3.7-5: Implementation of the proposed Project, with mitigation, would not or indirectly destroy a unique paleontological resource or site or unique geologic feature. (Less than Significant with Mitigation)

Implementation of The Campus project would provide for development and associated improvements that would involve construction activities such as grading, excavation, and other ground-disturbing activities with the potential to result in the accidental destruction or disturbance of paleontological resources. As discussed in the Dixon General Plan EIR, numerous paleontological resources have been discovered throughout the Sacramento Valley and Solano County regions, including Vacaville and Putah Creek, and while no paleontological resources have been discovered within the City, there is potential that resources could be found in the future.

The Project site is currently vacant/undeveloped, consisting primarily of farmland, and has undergone extensive previous grading. While the project is not anticipated to directly or indirectly impact previously undiscovered paleontological resources, there is the potential for project excavation activities to encounter paleontological resources. Therefore, the impact would be ***potentially significant***.

LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Potentially Significant

MITIGATION MEASURE(S)

Mitigation Measure 3.7-5: *If fossils or fossil-bearing deposits are encountered during ground-disturbing activities, work within a 25-foot radius of the find shall halt, the Dixon Community Development Department shall be notified, and a professional vertebrate paleontologist (as defined by the Society for Vertebrate Paleontology) shall be contacted immediately to evaluate the find. The paleontologist shall have the authority to stop or divert construction, as necessary. Documentation and treatment of the discovery shall occur in accordance with Society of Vertebrate Paleontology standards. The significance of the find shall be evaluated pursuant to the CEQA Guidelines. If the discovery proves to be significant, before*

construction activities resume at the location of the find, additional work such as data recovery excavation may be warranted, as deemed necessary by the paleontologist.

SIGNIFICANCE AFTER MITIGATION

Less than Significant

If previously undiscovered paleontological resources are uncovered during ground disturbing activities, Mitigation Measure 3.7-5 would require all work within a 25-foot radius of the find to be suspended until the resource is evaluated by a professional vertebrate paleontologist. If the discovery proves to be significant, before construction activities resume at the location of the find, additional work such as data recovery excavation may be warranted, as deemed necessary by the paleontologist. Implementation of Mitigation Measure 3.7-5 would reduce the potential for impacts to paleontological resources to a ***less-than-significant*** level.

CUMULATIVE IMPACTS

Related projects in the city may have the potential to interact with the proposed Project to the extent that a significant cumulative effect relative to geology and soils may occur. The geographic setting for geology and soils typically contains regional and local considerations, as the cumulative projects' geologic setting and regional seismicity would be similar; however, the local geologic setting, surficial geology, and subsurface soil conditions would vary according to the site location and specific conditions. Therefore, cumulative impacts consider development within the City, as well as development within the vicinity of the Project site.

Impact 3.7-6: Implementation of the proposed Project, in combination with other cumulative development, would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking or seismic-related ground failure, including liquefaction. (Less than Significant)

Potentially adverse environmental effects associated with seismic hazards are usually site-specific and generally do not result in cumulative effects. Cumulative projects could be exposed to considerable ground shaking during seismic events, but the development of individual projects would not increase the potential for impacts to occur. Individual development proposals within the vicinity of the Project site would be reviewed separately by the appropriate public agency (i.e., City or County) and undergo environmental review if appropriate. In the event that future cumulative development would result in impacts related to geologic or seismic impacts, those potential project or site-specific impacts would be addressed in accordance with the requirements of CEQA. New buildings would be constructed utilizing current design and construction methodologies for earthquake resistant design as required by relevant regulations. Thus, the cumulative impact regarding strong seismic ground shaking or seismic-related ground failure, including liquefaction, would be ***less than significant***.

MITIGATION MEASURE(S)

None Required.

Impact 3.7-7: Implementation of the proposed Project, in combination with other cumulative development, would not result in substantial soil erosion or the loss of topsoil. (Less than Significant)

Potentially adverse environmental effects associated with topographic alteration and erosion are usually site-specific and generally do not result in cumulative effects. Development of the proposed Project and cumulative projects would involve some land clearing, mass grading, and other ground-disturbing activities that could temporarily increase soil erosion rates during and shortly after project construction. Site specific geology and soil conditions would be evaluated on a project-by-project basis, and each project would be required to comply with stormwater runoff and pollution control requirements required by the RWQCB and implemented by the specific jurisdiction in which the development occurs. Construction activities for projects in the City would also be subject to the City's grading control ordinance and storm water control ordinance. The existing regulatory environment would reduce potential impacts associated with soil erosion or the loss of topsoil during short-term construction activities and long-term operation of individual and cumulative development projects. Thus, the cumulative impact to soil erosion or the loss of topsoil would be *less than significant*.

MITIGATION MEASURE(S)

None Required.

Impact 3.7-8: Implementation of the proposed Project, in combination with other cumulative development, would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. (Less than Significant)

Potentially adverse environmental effects associated with seismic hazards, as well as those associated with expansive soils, topographic alteration, and erosion, are usually site-specific and generally do not result in cumulative effects. Cumulative projects could be exposed to considerable ground shaking during seismic events, but the development of individual projects would not increase the potential for impacts to occur. Individual development proposals within the vicinity of the Project site would be evaluated on a project-by-project basis and by the appropriate public agency (i.e., City or County) and undergo environmental review if appropriate. In the event that future cumulative development would result in impacts associated with unstable geologic units or soils, those potential project or site-specific impacts would be addressed in accordance with the requirements of CEQA. New buildings would be constructed utilizing current design and construction methodologies as required by relevant regulations. Thus, the cumulative impact involving a geologic unit or soil that is unstable, potentially resulting in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse, would be *less than significant*.

MITIGATION MEASURE(S)

None Required.

Impact 3.7-9: Implementation of the proposed Project, in combination with other cumulative development, would not be located on expansive soil, as defined in Tables 18-1-D of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property. (Less than Significant)

Potentially adverse environmental effects associated with expansive soils, topographic alteration, and erosion, are usually site-specific and generally do not result in cumulative effects. Individual development proposals within the vicinity of the Project site would be evaluated on a project-by-project basis and by the appropriate public agency (i.e., City or County) and undergo environmental review if appropriate. In the event that future cumulative development would result in impacts associated with expansive soils, those potential project or site-specific impacts would be addressed in accordance with the requirements of CEQA. New buildings would be constructed utilizing current design and construction methodologies as required by relevant regulations. Thus, the cumulative impact involving expansive soils, creating substantial direct or indirect risks to life or property would be *less than significant*.

MITIGATION MEASURE(S)

None Required.

Impact 3.7-10: Implementation of the proposed Project, in combination with other cumulative development, would not or indirectly destroy a unique paleontological resource or site or unique geologic feature. (Less than Significant with Mitigation)

Any project involving earth-moving activity could potentially result in inadvertent discovery and disturbance of paleontological resources during grading and excavation work; these inadvertent discoveries could create potentially-significant impacts.

As indicated in the Dixon General Plan EIR, numerous paleontological resources have been discovered throughout the Sacramento Valley and Solano County regions, and while no paleontological resources have been discovered within the City, there is potential that resources could be found in the future. Future ground disturbing activities associated with project implementation and cumulative projects could have potential to cumulatively impact paleontological resources, and the project would have a cumulatively considerable contribution to that impact. As such, the cumulative impact to paleontological resources would be *potentially significant*.

The proposed Project would develop land that has been highly disturbed as a result of agricultural activities. Although the land is disturbed, there is a potential to uncover previously unknown paleontological resources. Therefore, the proposed Project would have a cumulatively considerable contribution to the cumulative impact, and the cumulative impact would be *potentially significant*.

MITIGATION MEASURE(S)

Mitigation Measure 3.7-10: *Implement Mitigation Measure 3.7-5.*

SIGNIFICANCE AFTER MITIGATION

Less than Significant

If previously undiscovered paleontological resources are uncovered during ground disturbing activities, Mitigation Measure 3.7-10 would require all work within a 25-foot radius of the find to be suspended until the resource is evaluated by a professional vertebrate paleontologist. If the discovery proves to be significant, before construction activities resume at the location of the find, additional work such as data recovery excavation may be warranted, as deemed necessary by the paleontologist. Implementation of Mitigation Measure 3.7-10 would reduce the potential for impacts to paleontological resources to a ***less-than-significant*** level.

The purpose of this EIR section is to identify the regional greenhouse gas (GHG) emissions and climate impacts that are likely to result from Project implementation. Following this discussion is an assessment of consistency of the proposed Project with applicable policies and local plans. The Air Quality analysis is located in Section 3.2, and the Energy analysis is located in Section 3.5.

The analysis and discussion of the GHGs and climate change impacts in this section focuses on the proposed Project's consistency with local, regional, statewide, and federal climate change planning efforts and discusses the context of these planning efforts as they relate to the proposed Project. Disclosures of the Project's estimated GHGs are provided.

Information in this section is based in part on the following resources and reference documents:

- *Traffic Impact Analysis for the Campus 257 NEQSP* (Flecker Associates, 2023),¹
- *California Emissions Estimator Model* (CalEEMod v. (v.2020.1.1.21) (CAPCOA, 2023),²
- *Plan Bay Area 2050* (Metropolitan Transportation Commission, 2021),³ and
- *2022 Scoping Plan Update* (California Air Resources Board, 2023).⁴

During the NOP comment period for the EIR, there were no comments received relating to this environmental topic.

3.8.1 ENVIRONMENTAL SETTING

GREENHOUSE GASES AND CLIMATE CHANGE LINKAGES

Various gases in the Earth's atmosphere, classified as atmospheric GHGs, play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere from space, and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation.

Naturally occurring GHGs include water vapor (H₂O), carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and ozone (O₃). Several classes of halogenated substances that contain fluorine, chlorine, or bromine are also GHGs, but they are, for the most part, solely a product of industrial activities. Although the direct GHGs CO₂, CH₄, and N₂O occur naturally in the atmosphere, human activities have changed their atmospheric concentrations. From the pre-industrial era (i.e., ending about 1750) to 2019, concentrations of these three GHGs have increased globally by 47, 156, and 23 percent, respectively.⁵

¹ Flecker Associates. 2023. *Traffic Impact Analysis for the Campus 257 NEQSP*. December 6, 2023.

² California Air Pollution Control Officers Association (CAPCOA). 2023. CalEEMod (v.2022.1.1.21). Available: www.caleemod.com

³ Metropolitan Transportation Commission. 2021. *Plan Bay Area 2050*. Available: <https://www.planbayarea.org/plan-bay-area-2050>

⁴ California Air Resources Board. 2022. *2022 Scoping Plan Update*. Available: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>

⁵ Intergovernmental Panel on Climate Change. 2023. "Climate Change 2023 Synthesis Report." Available at: https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_LongerReport.pdf

GHGs, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), ozone (O₃), water vapor, nitrous oxide (N₂O), and chlorofluorocarbons (CFCs).

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by the industrial and electricity generation sectors.⁶

As the name implies, global climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. California produced 369 million gross metric tons of carbon dioxide equivalents (MMTCO₂e) in 2022.⁷

Carbon dioxide equivalents are a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2022, accounting for 38% of total GHG emissions in the State. This category was followed by the industrial sector (23%), the electricity generation sector (including both in-state and out of-state sources) (16%), the agriculture and forestry sector (9%), the residential energy consumption sector (8%), and the commercial energy consumption sector (6%).⁸

EFFECTS OF GLOBAL CLIMATE CHANGE

The effects of increasing global temperature are far-reaching and extremely difficult to quantify. The scientific community continues to study the effects of global climate change. In general, increases in the ambient global temperature as a result of increased GHGs are anticipated to result in rising sea levels, which could threaten coastal areas through accelerated coastal erosion, threats to levees and inland water systems and disruption to coastal wetlands and habitat.

If the temperature of the ocean warms, it is anticipated that the winter snow season would be shortened. Snowpack in the Sierra Nevada provides both water supply (runoff) and storage (within the snowpack before melting), which is a major source of supply for the State. The snowpack portion of the supply could

⁶ California Energy Commission. 2023. Energy Almanac. Available: <http://energyalmanac.ca.gov/overview/index.html>

⁷ California Energy Commission. 2023. Energy Almanac. Available: <http://energyalmanac.ca.gov/overview/index.html>

⁸ California Air Resources Board. 2023. GHG Current California Emission Inventory Data. Available: <https://ww2.arb.ca.gov/ghg-inventory-data>

potentially decline by 50% to 75% by the end of the 21st century (National Resources Defense Council, 2014). This phenomenon could lead to significant challenges securing an adequate water supply for a growing state population. Further, the increased ocean temperature could result in increased moisture flux into the State; however, since this would likely increasingly come in the form of rain rather than snow in the high elevations, increased precipitation could lead to increased potential and severity of flood events, placing more pressure on California's levee/flood control system.

Sea level has risen approximately 7 inches during the last century and it is predicted to rise an additional 22 to 35 inches by 2100, depending on the future GHG emission levels. If this occurs, resultant effects could include increased coastal flooding, saltwater intrusion and disruption of wetlands. As the existing climate throughout California changes over time, mass migration of species, or failure of species to migrate in time to adapt to the perturbations in climate, could also result. According to the Indicators of Climate Change in California report, the impacts of global warming in California are anticipated to include, but are not limited to, those discussed below.⁹

Public Health

Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation are projected to increase from 25% to 35% under the lower warming range and to 75% to 85% under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55% more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures will increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A vast network of man-made reservoirs and aqueducts capture and transport water throughout the State from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater would degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels

⁹ California Office of Environmental Health Hazard Assessment. 2022. 2022 Report: Indicators of Climate Change in California. Available: <https://oehha.ca.gov/climate-change/epic-2022>

is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta, a major State fresh water supply. Global warming is also projected to seriously affect agricultural areas, with California farmers projected to lose as much as 25% of the water supply they need; decrease the potential for hydropower production within the State (although the effects on hydropower are uncertain); and seriously harm winter tourism. Under the lower warming range, the snow dependent winter recreational season at lower elevations could be reduced by as much as one month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing, snowboarding, and other snow dependent recreational activities.

If GHG emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70% to 90%. Under the lower warming scenario, snowpack losses are expected to be only half as large as those expected if temperatures were to rise to the higher warming range. How much snowpack will be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack would pose challenges to water managers, hamper hydropower generation, and nearly eliminate all skiing and other snow-related recreational activities.

Agriculture

Increased GHG emissions are expected to cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. Although higher carbon dioxide levels can stimulate plant production and increase plant water-use efficiency, California's farmers will face greater water demand for crops and a less reliable water supply as temperatures rise.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures are likely to worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts, and milk.

Crop growth and development will be affected, as will the intensity and frequency of pest and disease outbreaks. Rising temperatures will likely aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

In addition, continued global warming will likely shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion is expected in many species while range contractions are less likely in rapidly evolving species with significant populations already established. Should range contractions occur, it is likely that new or different weed species will fill the emerging gaps. Continued global warming is also likely to alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

Global warming is expected to alter the distribution and character of natural vegetation thereby resulting in a possible increased risk of large wildfires. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase

expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the State. For example, if precipitation increases as temperatures rise, wildfires in southern California are expected to increase by approximately 30% toward the end of the century. In contrast, precipitation decreases could increase wildfires in northern California by up to 90%.

Moreover, continued global warming will alter natural ecosystems and biological diversity within the State. For example, alpine and sub-alpine ecosystems are expected to decline by as much as 60% to 80% by the end of the century as a result of increasing temperatures. The productivity of the State's forests is also expected to decrease as a result of global warming.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures will increasingly threaten the State's coastal regions. Under the higher warming scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.

ENERGY CONSUMPTION

Energy in California is consumed from a wide variety of sources. Fossil fuels (including gasoline and diesel fuel, natural gas, and energy used to generate electricity) are the most widely used form of energy in the State. However, renewable sources of energy (such as solar and wind) are growing in proportion to California's overall energy mix. A large driver of renewable sources of energy in California is the State's current Renewable Portfolio Standard (RPS), which requires the State to derive at least 60 percent of electricity generated by 2030, and to achieve zero-carbon emissions by 2045 (as passed in September 2018, under Senate Bill 100). The 2021 SB 100 Joint Agency Report was published in 2021, which found that the long-term goals contained in SB 100 are technically achievable through multiple pathways, although achieving 100 clean electricity would increase the total annual electricity system cost by 6% relative to the cost under the state's Renewables Portfolio Standard requirement of having at least 60 percent clean electricity by the end of 2030. These estimates will change over time as markets change, new technologies are commercialized, and additional factors such as grid reliability are included in future analyses.

Overall, in 2019, California's per capita energy usage was ranked second-lowest in the nation. California's per capita rate of energy usage has remained relatively constant since the 1970's. Many State regulations since the 1970s, including new building energy efficiency standards, vehicle fleet efficiency measures, as well as growing public awareness, have helped to keep per capita energy usage in the State in check.

The consumption of non-renewable energy (i.e., fossil fuels) associated with the operation of passenger, public transit, and commercial vehicles results in GHG emissions that contribute to global climate change. Alternative fuels such as natural gas, ethanol, and electricity (unless derived from solar, wind, nuclear, or other energy sources that do not produce carbon emissions) also result in GHG emissions and contribute to global climate change.

Electricity Consumption

California relies on a regional power system composed of a diverse mix of natural gas, renewable, hydroelectric, and a very small amount of nuclear generation resources. In 2020, nearly one-half of the electricity supply came from facilities outside of the State. Much of the power delivered to California from states in the Pacific Northwest was generated by wind. States in the Southwest delivered power generated at coal-fired power plants, at natural gas-fired power plants, and from nuclear generating stations.¹⁰ In 2020, approximately 41 percent of California’s utility-scale net electricity generation was fueled by natural gas. In addition, about 48 percent of the State’s utility-scale net electricity generation came from renewable sources, such as solar, wind, geothermal, hydropower, and biomass. Nuclear energy powered an additional 11 percent. The amount of electricity generated from coal was effectively zero. The percentage of renewable resources as a proportion of California’s overall energy portfolio is increasing over time, as directed the State’s Renewable Portfolio Standard (RPS).¹¹

According to the California Energy Commission (CEC), total statewide electricity consumption increased from 166,979 gigawatt-hours (GWh) in 1980 to 228,038 GWh in 1990, which is an estimated annual growth rate of 3.66 percent. The statewide electricity consumption in 1997 was 246,225 GWh, reflecting an annual growth rate of 1.14 percent between 1990 and 1997.¹² Statewide consumption was 274,985 GWh in 2010, an annual growth rate of 0.9 percent between 1997 and 2010. In 2021, the latest year for which data is available, statewide consumption was 277,205 GWh.¹³ In 2022, electricity consumption in Solano County was 2,880 GWh.¹⁴

PG&E is a publicly traded utility company that, under contract with the California Public Utilities Commission (CPUC), generates, purchases, and distributes energy. PG&E’s service area covers 70,000 square miles, roughly extending north to south from Eureka to Bakersfield and east to west from the Sierra Nevada to the Pacific Ocean. PG&E’s electricity distribution system consists of 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines.

PG&E’s electricity is generated from a combination of traditional sources, such as coal-fired plants, nuclear power plants, and hydroelectric dams, as well as newer sources of energy, such as wind turbines and photovoltaic plants, or “solar farms.” “The grid,” or bulk electric grid, is a network of high-voltage transmission lines that link power plants to the PG&E system. The distribution system, comprising lower-voltage secondary lines, is at the street and neighborhood level. It consists of overhead or underground distribution lines, transformers, and individual service “drops” that connect to individual customers.

¹⁰ United States Energy Information Administration (U.S. EIA). 2022. California End-Use Energy Consumption 2022, Estimates. Available at: <https://www.eia.gov/beta/states/states/ca/overview><https://www.eia.gov/tools/faqs/faq.php?id=33&t=6>

¹¹ United States Energy Information Administration (U.S. EIA). 2022. California End-Use Energy Consumption 2022, Estimates. Available at: <https://www.eia.gov/beta/states/states/ca/overview><https://www.eia.gov/tools/faqs/faq.php?id=33&t=6>

¹² United States Energy Information Administration (U.S. EIA). 2023. Table C14. Total Energy Consumption Estimates per Capita by End-Use Sector, Ranked by State, 2019. Available at: https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_sum/html/rank_use_capita.html&sid=US

¹³ California Energy Commission. 2022. California Electrical Energy Generation. Available: <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-electrical-energy-generation>

¹⁴ California Energy Commission. 2024. Energy Almanac. Available: <http://www.ecdms.energy.ca.gov/elecbycounty.aspx>

In addition to its base plan, PG&E has three plan options, known as Solar Choice options and Green Saver, which give customers the option of purchasing energy from solar resources. The first Solar Choice option provides up to 50 percent of a customer’s energy from solar resources, while the other option provides up to 100 percent of a customer’s energy from solar resources, and the Green Saver option provides up to 90 percent of a customer’s energy from solar resources.

Table 3.8-1 outlines PG&E’s power mix in 2021, compared to the power mix for the state. The table identifies the renewable and non-renewable energy sources for PG&E. It should be noted that some GHG free sources are not considered renewable (e.g., nuclear is GHG free but not renewable).

TABLE 3.8-1. PG&E AND THE STATE OF CALIFORNIA POWER MIX IN 2021

ENERGY RESOURCES	PG&E OPTION: BASE	PG&E OPTION: 50% SOLAR CHOICE	PG&E OPTION: 100% SOLAR	PG&E OPTION: GREEN SAVER	CALIFORNIA POWER MIX 2021
Eligible Renewable	47.7%	70.9%	93.9%	89.9%	33.6%
Biomass and waste	4.2%	2.1%	0.0%	0.0%	2.3%
Geothermal	5.2%	2.6%	0.0%	0.0%	4.8%
Small hydroelectric	1.8%	0.9%	0.0%	0.0%	1.0%
Solar	25.7%	59.8%	93.9%	89.9%	14.2%
Wind	10.9%	5.5%	0.0%	0.0%	11.4%
Coal	0.0%	0.0%	0.0%	0.0%	3.0%
Large Hydroelectric	4.0%	2.0%	0.0%	0.0%	9.2%
Natural Gas	8.9%	7.4%	0.0%	0.0%	37.9%
Nuclear	39.3%	19.7%	0.0%	0.0%	9.3%
Other	0.0%	0.0%	0.0%	0.0%	0.2%
Unspecified	0.0%	0.0%	6.1%	10.1%	6.8%

SOURCE: PG&E. 2021. 2021 POWER CONTENT LABEL. AVAILABLE: [HTTPS://WWW.ENERGY.CA.GOV/FILEBROWSER/DOWNLOAD/4653](https://www.energy.ca.gov/filebrowser/download/4653). ACCESSED: NOVEMBER 10, 2023.

^A. ELECTRICITY FROM TRANSACTIONS THAT ARE NOT TRACEABLE TO SPECIFIC GENERATION SOURCES ARE CLASSIFIED AS UNSPECIFIED SOURCES OF POWER.

Oil

The primary energy source for the United States is oil, which is refined to produce fuels like gasoline, diesel, and jet fuel. Oil is a finite, nonrenewable energy source. World consumption of petroleum products has grown steadily in the last several decades. As of 2019, world consumption of oil had reached approximately 98 million barrels per day. The United States, with approximately five percent of the world’s population, accounts for approximately 19 percent of world oil consumption, or approximately

18.6 million barrels per day.¹⁵ The transportation sector relies heavily on oil. In California, petroleum-based fuels currently provide approximately 95 percent of the State's transportation energy needs.

Natural Gas/Propane

The State produces approximately 12 percent of its natural gas, while obtaining 22 percent from Canada and 65 percent from the Rockies and the Southwest. PG&E is the largest publicly-traded utility in California and provides natural gas for residential, industrial, and agency consumers within the San Joaquin County area. PG&E's natural gas (i.e., methane) delivery system includes 42,000 miles of natural gas distribution pipelines and 6,700 miles of transmission pipelines. PG&E's gas transmission system serves approximately 15 million energy customers in California. The system is operated under an inspection and monitoring program in real time on a 24-hour basis, with leak inspections, surveys, and patrols continuously taking place along the pipelines. Gas delivered by PG&E originates in gas fields in California, the Southwest, the Rocky Mountains, and Canada. Transmission pipelines send natural gas from the fields and storage facilities. The smaller distribution pipelines deliver gas to individual businesses or residences.

In As of March 2022, California produced 11.4 billion cubic feet of natural gas per month.¹⁶ PG&E is the largest publicly-owned utility in California and provides natural gas for residential, industrial, and agency consumers within the San Joaquin County area. In 2022, natural gas consumption in San Joaquin County was 191 million therms.¹⁷

3.8.2 REGULATORY SETTING

FEDERAL

Clean Air Act

The Federal Clean Air Act (FCAA) was first signed into law in 1970. In 1977, and again in 1990, the law was substantially amended. The FCAA is the foundation for a national air pollution control effort, and it is composed of the following basic elements: National Ambient Air Quality Standards (NAAQS) for criteria air pollutants, hazardous air pollutant standards, State attainment plans, NAAQS motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

The EPA is responsible for administering the FCAA. The FCAA requires the EPA to set NAAQS for several problem air pollutants based on human health and welfare criteria. Two types of NAAQS were established: primary standards, which protect public health, and secondary standards, which protect the public welfare from non-health-related adverse effects such as visibility reduction.

¹⁵ United States Energy Information Administration (U.S. EIA). 2020c. Independent Statistics and Analysis. Frequently Asked Questions. Last updated September 4, 2020. Available at: <https://www.eia.gov/tools/faqs/faq.php?id=33&t=6>

¹⁶ United States Energy Information Administration (U.S. EIA). 2022. California Natural Gas Marketed Production. Available at: <https://www.eia.gov/dnav/ng/hist/n9050ca2M.htm>

¹⁷ California Energy Commission. 2023. Gas Consumption By County. Available: <http://www.ecdms.energy.ca.gov/gasbycounty.aspx>

In 2007, in the court case of *Massachusetts et al. vs. the USEPA et al.* (549 U.S. 497), the U.S. Supreme Court found that GHGs are air pollutants covered by the federal Clean Air Act (42 USC Sections 7401-7671q). The Supreme Court held that the Administrator of the United States Environmental Protection Agency must determine whether or not emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the Administrator is required to follow the language of Section 202(a) of the Clean Air Act. On December 7, 2009, the Administrator signed two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

These findings do not themselves impose any requirements on industry or other entities. However, this action was a prerequisite for implementing GHG emission standards for vehicles. In collaboration with the National Highway Traffic Safety Administration (NHTSA) and CARB, the USEPA developed emission standards for light-duty vehicles (2012-2025 model years), and heavy-duty vehicles (2014-2027 model years).

Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the Act, the National Highway Traffic and Safety Administration, which is part of the U.S. Department of Transportation (USDOT), is responsible for establishing additional vehicle standards and for revising existing standards.

Since 1990, the fuel economy standard for new passenger cars has been 27.5 mpg. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is determined on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the U.S. The Corporate Average Fuel Economy (CAFE) program, which is administered by the EPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, the USDOT is authorized to assess penalties for noncompliance.

Federal Climate Change Policy

According to the U.S. EPA, “the United States government has established a comprehensive policy to address climate change” that includes slowing the growth of emissions; strengthening science, technology, and institutions; and enhancing international cooperation. To implement this policy, “the Federal government is using voluntary and incentive-based programs to reduce emissions and has established programs to promote climate technology and science.” The U.S. EPA administers multiple programs that encourage voluntary GHG reductions, including “ENERGY STAR”, “Climate Leaders”, and Methane Voluntary Programs.

The following are actions taken at the federal level relating to GHG emissions.

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the U.S. EPA and the Department of Transportation’s National Highway Safety Administration announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program applies to passenger cars, light duty trucks, and medium duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO₂ per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this CO₂ level solely through fuel economy improvements. The U.S. EPA and the National Highway Safety Administration issued final rules on a second phase joint rulemaking, establishing national standards for light duty vehicles for model years 2017 through 2025 in August 2012.¹⁸ The standards for model years 2017 through 2025 apply to passenger cars, light duty trucks, and medium duty passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO₂ in model year 2025, which is equivalent to 54.5 miles per gallon (mpg) if achieved exclusively through fuel economy improvements.

The U.S. EPA and the U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses on September 15, 2011, which became effective November 14, 2011. For combination tractors, the agencies adopted engine and vehicle standards that began in the 2014 model year and achieved up to a 20 percent reduction in CO₂ emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies adopted separate gasoline and diesel truck standards, which phased in starting in the 2014 model year.

Mandatory Reporting of Greenhouse Gases. The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the U.S. EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule, which became effective January 1, 2010. The rule requires reporting of GHG emissions from large sources and suppliers

¹⁸ United States Environmental Protection Agency (EPA). 2012. EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks. Website: <http://www.epa.gov/otaq/climate/documents/420f12051.pdf>. Accessed January 21, 2021.

in the United States and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions are required to submit annual reports to the U.S. EPA.

Cap and Trade. Cap-and-trade refers to a policy tool where emissions are limited to a certain amount and can be traded, or provides flexibility on how the emitter can comply. There is no federal GHG cap-and-trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap and trade.

The Western Climate Initiative partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15 percent below 2005 levels by 2020. The partners are California, British Columbia, Manitoba, Ontario, and Quebec. Currently, only California and Quebec are participating in the cap-and-trade program.

STATE

The California Legislature has enacted a series of statutes in recent years addressing the need to reduce GHG emissions across the State. These statutes can be categorized into four broad categories: (i) statutes setting numerical statewide targets for GHG reductions, and authorizing CARB to enact regulations to achieve such targets; (ii) statutes setting separate targets for increasing the use of renewable energy for the generation of electricity throughout the State; (iii) statutes addressing the carbon intensity of vehicle fuels, which prompted the adoption of regulations by CARB; and (iv) statutes intended to facilitate land use planning consistent with statewide climate objectives. The discussion below will address each of these key sets of statutes, as well as Executive Orders and CARB “Scoping Plans” intended to achieve GHG reductions under the first set of statutes and recent building code requirements intended to reduce energy consumption.

Statutes Setting Statewide GHG Reduction Targets

ASSEMBLY BILL 32 (GLOBAL WARMING SOLUTIONS ACT)

In 2006, the California State Legislature enacted the California Global Warming Solutions Act of 2006 (Health & Safety Code Section 38500 *et seq.*), also known as Assembly Bill (AB) 32 (Stats. 2006, ch. 488). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 required that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction was accomplished through an enforceable statewide cap on GHG emissions that was phased in starting in 2012. To effectively implement the cap, AB 32 directed the California Air Resources Board (CARB) to develop and implement regulations to reduce statewide GHG emissions from stationary sources.

SENATE BILL 32

SB 32 (Stats. 2016, Ch. 249) added Section 38566 to the Health and Safety Code. It provides that “[i]n adopting rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions authorized by [Division 25.5 of the Health and Safety Code], [CARB]

shall ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit no later than December 31, 2030.” In other words, SB 32 requires California, by 2030, to reduce its statewide GHG emissions so that they are 40 percent below those that occurred in 1990.

EXECUTIVE ORDERS S-3-05, B-30-15, AND B-55-18

The 2020 statewide GHG reduction target in AB 32 was consistent with the second of three statewide emissions reduction targets set forth in former Governor Arnold Schwarzenegger’s 2005 Executive Order known as S-3-05, which is expressly mentioned in AB 32. (See Health & Safety Code Section 38501, subd. (i).) That Executive Branch document included the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels. To meet the targets, the Governor directed several State agencies to cooperate in the development of a climate action plan. The Secretary of Cal-EPA leads the Climate Action Team, whose goal is to implement global warming emission reduction programs identified in the Climate Action Plan and to report on the progress made toward meeting the emission reduction targets established in the executive order.

In 2015, Governor Brown issued Executive Order, B-30-15, which created a “new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 is established in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050.” SB 32 codified this target.

In 2018, the Governor issued Executive Order B-55-18, which established a statewide goal to “achieve carbon neutrality as soon as possible, and no later than 2045, and maintain and achieve negative emissions thereafter.” The order directs the CARB to work with other State agencies to identify and recommend measures to achieve those goals. As discussed below, the 2022 Scoping Plan lays out a path towards achieving carbon neutrality by 2045.

SB 350

Senate Bill 350 (SB 350) (Stats. 2015, Ch. 547) added to the Public Utilities Code language that puts into statute the 2050 GHG reduction target identified in Executive Order S-3-05, albeit in the limited context of new state policies (i) increasing the overall share of electricity that must be produced through renewable energy sources and (ii) directing certain State agencies to begin planning for the widespread electrification of the California vehicle fleet. Section 740.12(a)(1)(D) of the Public Utilities Code states that “[t]he Legislature finds and declares [that] ... [r]educing emissions of [GHGs] to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050 will require widespread transportation electrification.” Furthermore, Section 740.12(b) states that the California Public Utilities Commission (CPUC), in consultation with CARB and the California Energy Commission (CEC), must “direct electrical corporations to file applications for programs and investments to accelerate widespread transportation electrification to reduce dependence on petroleum, meet air quality standards, ... and reduce emissions of greenhouse gases to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050.”

AB 1279

In September 2022, the Legislature enacted AB 1279 (Stats. 2022, Ch. 337). The bill declares the policy of the state to achieve net zero GHG emissions as soon as possible, but no later than 2045, and achieve and maintain net negative GHG emissions thereafter. Additionally, the bill requires that by 2045, statewide anthropogenic GHG emissions be reduced to at least 85% below 1990 levels.

Statutes Setting Target for the Use of Renewable Energy for the Generation of Electricity

CALIFORNIA RENEWABLES PORTFOLIO STANDARD

Senate Bill X1-2 (Stats. 2011, 1st Ex. Sess., Ch. 1) set aggressive statutory targets for renewable electricity, culminating in the requirement that 33 percent of the State's electricity come from renewables by 2020. This legislation applies to all electricity retailers in the State, including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities were required to meet renewable energy goals of 20 percent of retail sales from renewables by the end of 2013, 25 percent by the end of 2016, and 33 percent by the end of 2020. (See Pub. Utility Code, Section 399.11 *et seq.* [subsequently amended].) SB 350, discussed below, increases the Renewable Portfolio Standard to require 50 percent of electricity generated to be from renewables by 2030. (Pub. Utility Code, Section 399.11, subd (a); see also Section 399.30, subd. (c)(2).) In 2018, Senate Bill 100 (Stats. 2018, Ch. 312) revised the above-described deadlines and targets so that the State will have to achieve a 50% renewable resources target by December 31, 2026 (instead of by 2030) and achieve a 60% target by December 31, 2030. The legislation also establishes a State policy that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers and 100% of electricity procured to serve all State agencies by December 31, 2045.

Statutes and CARB Regulations Addressing the Carbon Intensity of Petroleum-based Transportation Fuels

ASSEMBLY BILL 1493, PAVLEY CLEAN CARS STANDARDS

In 2002, the Legislature enacted Assembly Bill 1493 ("Pavley Bill") (Stats. 2002, Ch. 200), which directed CARB to develop and adopt regulations that achieve the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks beginning with model year 2009. (See Health and Safety Code Section 43018.5.) In September 2004, pursuant to this directive, CARB approved regulations to reduce GHG emissions from new motor vehicles beginning with the 2009 model year. These regulations created what are commonly known as the "Pavley standards." In September 2009, CARB adopted amendments to the Pavley standards to reduce GHG emissions from new motor vehicles through the 2016 model year. These regulations created what are commonly known as the "Pavley II standards." (See California Code of Regulations, Title 13, Sections 1900, 1961, and 1961.1 *et seq.*)

In 2012, CARB adopted an Advanced Clean Cars (ACC) program aimed at reducing both smog-causing pollutants and GHG emissions for vehicles model years 2017-2025. This historic program, developed in coordination with the USEPA and NHTSA, combined the control of smog-causing (criteria) pollutants and

GHG emissions into a single coordinated set of requirements for model years 2015 through 2025. The regulations focus on substantially increasing the number of plug-in hybrid cars and zero-emission vehicles in the vehicle fleet and on making fuels such as electricity and hydrogen readily available for these vehicle technologies. The components of the ACC program are the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles in the 2018 through 2025 model years. (See California Code of Regulations, Title 13, Sections 1900, 1961, 1961.1, 1961.2, 1961.3, 1965, 1968.2, 1968.5, 1976, 1978, 2037, 2038, 2062, 2112, 2139, 2140, 2145, 2147, 2235, and 2317 *et seq.*)

It is expected that the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 34 percent below 2016 levels by 2025, all while improving fuel efficiency and reducing motorists' costs.

Statute Intended to Facilitate Land Use Planning Consistent with Statewide Climate Objectives

CALIFORNIA SENATE BILL 375 (SUSTAINABLE COMMUNITIES STRATEGY)

This 2008 legislation built on AB 32 by setting forth a mechanism for coordinating land use and transportation on a regional level for the purpose of reducing GHGs. The focus is to reduce miles traveled by passenger vehicles and light trucks. CARB is required to set GHG reduction targets for each metropolitan region for 2020 and 2035. Each of California's metropolitan planning organizations then prepares a sustainable communities strategy that demonstrates how the region will meet its GHG reduction target through integrated land use, housing, and transportation planning. Once adopted by the metropolitan planning organizations, the sustainable communities strategy is to be incorporated into that region's federally enforceable regional transportation plan. If a metropolitan planning organization is unable to meet the targets through the sustainable communities strategy, then an alternative planning strategy must be developed that demonstrates how targets could be achieved, even if meeting the targets is deemed to be infeasible.

Climate Change Scoping Plans

2022 SCOPING PLAN UPDATE

In accordance with AB 32, the CARB developed the first Scoping Plan in 2008 to outline the State's strategy to achieve 1990 level emissions by year 2020. In May 2014, the CARB released and adopted the *First Update to the Climate Change Scoping Plan* to identify the next steps in reaching AB 32 goals and evaluate the progress that has been made between 2000 and 2012. A newer version of the Scoping Plan was then adopted by the CARB in December 2017 (entitled *California's 2017 Climate Change Scoping Plan*). Lastly, the most recent version of the Scoping Plan was adopted by the CARB in November 2022 (entitled *Final 2022 Scoping Plan for Achieving Carbon Neutrality*) (2022 Scoping Plan), which was designed consistent with the long-term GHG reduction targets embedded in AB 1279. Since adoption of the 2008 Scoping Plan and the subsequent updates in 2014, 2017, and 2022, State agencies have adopted programs identified

in the plan, and the Legislature has passed additional legislation to achieve the GHG reduction targets. Statewide strategies to reduce GHG emissions include the Low Carbon Fuel Standard, California Appliance Energy Efficiency regulations, California Building Standards (e.g., CALGreen and the 2022 Building and Energy Efficiency Standards), zero carbon electricity by 2045, and changes in the corporate average fuel economy standards (e.g., Pavley I and California Advanced Clean Cars)).

Statutes Intended to Reduce Emissions of Short-lived Climate Pollutants

SB 605 AND SB 1383

SB 605 (2014) required CARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants in the state, and SB 1383 (2016) required CARB to approve and implement that strategy by January 1, 2018. SB 1383 also establishes specific targets for the reduction of short-lived climate pollutants (40% below 2013 levels by 2030 for methane and HFCs, and 50% below 2013 levels by 2030 for anthropogenic black carbon), and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, CARB adopted its Short-Lived Climate Pollutant Reduction Strategy (Reduction Strategy) in March 2017. The Reduction Strategy establishes a framework for the statewide reduction of emissions of black carbon, methane, and fluorinated gases.

Statute Intended to Achieve Carbon Neutrality and Foster Climate Adaptation and Resilience

ASSEMBLY BILL 1757

AB 1757 (September 2022) requires the California Natural Resources Agency (CNRA) to determine a range of targets for natural carbon sequestration, and for nature-based climate solutions that reduce GHG emissions for future years 2030, 2038, and 2045. These targets are to be determined by no later than January 1, 2024, and are established to support the state's goals to achieve carbon neutrality and foster climate adaptation and resilience.

Building Code Requirements Intended to Reduce GHG Emissions

CALIFORNIA ENERGY CODE

The California Energy Code (CCR Title 24, Part 6), which is incorporated into the Building Energy Efficiency Standards, was first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Although these standards were not originally intended to reduce GHG emissions, increased energy efficiency results in decreased GHG emissions because energy efficient buildings require less electricity and thus less consumption of fossil fuels, which emit GHGs. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.

The most recent Title 24 standards are the 2022 Title 24 standards. Buildings permitted on or after January 1, 2023, must comply with the 2022 Standards. The California Energy Commission updates the standards every three years. The CEC estimates that the 2022 Title 24 standards will reduce 10 million metric tons of GHG over 30 years. When compared to the 2019 Title 24 standards, the 2022 update focuses on:

encouraging electric heat pump technology and use; establishing electric-ready requirements when natural gas is installed; expanding solar photovoltaic (PV) system and battery storage standards; and strengthening ventilation standards to improve indoor air quality.

CALIFORNIA GREEN BUILDING STANDARDS CODE

The purpose of the California Green Building Standards Code (CalGreen) (CCR Title 24, Part 11) is to improve public health and safety and to promote the general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories: 1) planning and design; 2) energy efficiency; 3) water efficiency and conservation; 4) material conservation and resource efficiency; and 5) environmental quality. CalGreen, which became effective on January 1, 2011, instituted mandatory minimum environmental performance standards for all ground-up new construction of commercial, low-rise residential uses, and State-owned buildings, as well as schools and hospitals. The mandatory standards require the following:

- 20 percent mandatory reduction in indoor water use relative to baseline levels;
- 50 percent construction/demolition waste must be diverted from landfills;
- Mandatory inspections of energy systems to ensure optimal working efficiency; and
- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particle boards.

The voluntary standards require the following:

- Tier I: 15 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 65 percent reduction in construction waste, 10 percent recycled content, 20 percent permeable paving, 20 percent cement reduction, and cool/solar reflective roof.
- Tier II: 30 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 75 percent reduction in construction waste, 15 percent recycled content, 30 percent permeable paving, 30 percent cement reduction, and cool/solar reflective roof.

The latest version of CalGreen is the 2022 CalGreen Code, which became effective on January 1, 2023. Between 2010 and 2022, continuous updates and additions have been made to CALGreen, including water conservation and recycling, electric vehicle infrastructure and charging, and changes intended to eliminate conflicts with the California Energy Code, which is Part 6 of Title 24.

TITLE 20

CCR Title 20 requires manufacturers of appliances to meet state and federal standards for energy and water efficiency. The CEC certifies an appliance based on a manufacturer's demonstration that the appliance meets the standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules;

dishwaters; clothes washers and dryers; cooking products; electric motors; low-voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing each type of appliance covered under the regulations, and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains three types of standards for appliances: federal and state standards for federally regulated appliances, state standards for federally regulated appliances, and state standards for non-federally regulated appliances.

SENATE BILL 1

SB 1 (Murray) (August 2006) established a \$3 billion rebate program to support the goal of the state to install rooftop solar energy systems with a generation capacity of 3,000 megawatts through 2016. SB 1 added sections to the Public Resources Code, including Chapter 8.8 (California Solar Initiative), that require building projects applying for ratepayer-funded incentives for photovoltaic systems to meet minimum energy efficiency levels and performance requirements. Section 25780 established that it is a goal of the state to establish a self-sufficient solar industry. The goals included establishing solar energy systems as a viable mainstream option for homes and businesses within 10 years of adoption and placing solar energy systems on 50% of new homes within 13 years of adoption. SB 1, also termed “Go Solar California,” was previously titled “Million Solar Roofs.”

SOLID WASTE

AB 939, AB 341, and AB 1826. In 1989, AB 939, known as the Integrated Waste Management Act (PRC Sections 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25% by 1995 and 50% by 2000.

AB 341 (Chapter 476, Statutes of 2011 [Chesbro]) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75% of solid waste generated be source-reduced, recycled, or composted by 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the state’s policy goal.

AB 1826 (Chapter 727, Statutes of 2014, effective 2016) requires businesses to recycle their organic waste (i.e., food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste) depending on the amount of waste they generate per week. This law also requires local jurisdictions across the state to implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. The minimum threshold of organic waste generation by businesses subject to the law decreases over time, which means an increasingly greater proportion of the commercial sector will be required to comply.

LOCAL

Yolo Solano Air Pollution Control District

The Yolo-Solano Air Quality Management District (YSAQMD) is the air district with jurisdiction over the Project site. YSAQMD's mission is to protect human health and property from the harmful effects of air pollution. The District was established in 1971 by a joint powers agreement between the Yolo and Solano County Boards of Supervisors. The District is governed by a 14-member Board of Directors composed of locally elected representatives. The District has jurisdiction over all of Yolo County and the northeast portion of Solano County, including Vacaville, Dixon and Rio Vista. The District includes approximately 1,500 square miles and a population of approximately 354,000 people. To assist lead agencies and project applicants as they prepare air quality analyses, the District produced the *Handbook for Assessing and Mitigating Air Quality Impacts* (2007).

Dixon General Plan

The Dixon General Plan contains the following goals and policies that are relevant to greenhouse gases and climate change:

NATURAL ENVIRONMENT

GOAL NE-2. Use energy and water wisely and promote reduced consumption.

Policy NE-2.1 Promote energy conservation throughout the community and encourage the use of renewable energy systems to supplement or replace traditional building energy systems.

Policy NE-2.3 Participate in regional energy efficiency financing programs such as low-interest revolving loan funds, the California Comprehensive Residential Building Retrofit Program, California First, and the Property Assessed Clean Energy (PACE) program that enable property owners to obtain low-interest financing for energy improvements.

Policy NE-2.7 Conserve water through the provision of water-efficient infrastructure, drought tolerant plantings, and greywater usage to support public parks and landscaped areas.

GOAL NE-5. Minimize air, soil, noise, and water pollution as well as community exposure to hazardous conditions.

Policy NE-5.1 Coordinate with the Yolo-Solano Air Quality Management District and other local, regional, and State agencies to protect and enhance air quality in Dixon.

Policy NE-5.2 Continue to use the Yolo-Solano Air Quality Management District's Handbook for Assessing and Mitigating Air Quality Impacts for environmental review of proposed development projects.

Policy NE-5.3 Require dust abatement actions for all new construction and redevelopment projects, consistent with the Yolo-Solano Air Quality Management District's Best Available Control Measures.

MOBILITY ENVIRONMENT

GOAL M-1. Plan, design, construct, and maintain a transportation network that provides safe and efficient access throughout the city and optimizes travel by all modes.

Policy M-1.1 Maintain a transportation network that is efficient and safe, that removes barriers (e.g. accessibility near freeways and rail lines), and that optimizes travel by all modes.

Policy M-1.3 Design, construct, operate, and maintain city streets based on a “complete streets” concept that enables safe, comfortable, and attractive access and travel for pedestrians, bicyclists, motorists, and transit users of all ages and abilities.

Policy M-1.5 Increase accessibility for and use of streets by pedestrians, bicyclists, and transit riders through appropriate roadway modifications and improvements.

Policy M-1.6 Ensure that improvements to the transportation network support a land use pattern that connects the community, integrates neighborhoods, provides multi-modal access and facilitates travel among Dixon’s neighborhoods.

GOAL M-2. Manage the city's transportation system to minimize congestion, improve flow and improve air quality.

Policy M-1.2 Ensure that the street network functions for the automobile, yet is easily accessible, safe, and convenient for other modes of travel and for users of all ages, abilities, and income levels.

Policy M-2.2 Prioritize pedestrian, bicycle, and automobile safety over traffic flow.

Policy M-2.3 Maintain a minimum level of service of "D" citywide for planning purposes.

Policy M-2.8 Require traffic studies for new development to include analysis of intersections, roadway segments, and alternative modes of transportation and facilities that may be affected by development proposals.

Policy M-2.9 Recognize uncongested access to the freeway from employment areas in the north of the city as a competitive advantage for Dixon and prioritize improvements accordingly.

GOAL M-3. Facilitate convenient and safe pedestrian, bicycle, transit, and vehicular connections between neighborhoods and to destinations in Dixon and neighboring communities.

Policy M-3.1 Enhance pedestrian, bicycle and transit connections to, from and between parks, community centers, neighborhoods, recreation facilities, libraries, schools, commercial centers and other community destinations in Dixon for all users.

Policy M-3.2 Ensure that new development provides physical connections to surrounding neighborhoods.

Policy M-3.3 Foster an integrated multi-use trail system that provides universally accessible, safe, pleasant and convenient links within the city and to destinations beyond.

Policy M-3.4 Expand the regional bicycle and pedestrian trail network, in collaboration with the Solano Transportation Authority, surrounding communities, and other partners.

Policy M-3.5 Increase regional transit ridership to and from Dixon and expand shuttle service to Amtrak.

Policy M-3.6 Participate in and contribute to regional programs to improve commute alternatives and efficiency.

Policy M-3.8 Prioritize the transit needs of senior, disabled, minority, low-income, and transit-dependent persons in making decisions regarding transit services and in compliance with the Americans with Disabilities Act.

Policy M-3.8 Encourage provision of a variety of transportation services for seniors and community members with limited mobility

Policy M-3.9 Increase safety at train crossings with improved gate technology and signal coordination, in partnership with Solano Transportation Authority, Union Pacific Rail Road, and Amtrak.

GOAL M-4. Facilitate travel within the city and to surrounding communities by alternatives to the

Policy M-4.1 Promote cycling and walking as healthy, affordable and viable transportation options in Dixon for all residents through education, incentives, citywide events such as Sunday Streets events, and programs such as Safe Routes to School and Safe Routes for Seniors programs.

Policy M-4.2 Promote roadway safety for all road users through education and awareness programs and campaigns

Policy M-4.3 Increase bicycle ridership for work, errands and leisure trips.

Policy M-4.4 Regularly maintain bicycle and pedestrian paths and trails, including sweeping, weed abatement and surface maintenance

Policy M-4.5 Encourage pedestrian-friendly design features in new development such as sidewalks, street trees, on-street parking, gathering spaces, gardens, outdoor furniture, art and interesting architectural details.

Policy M-4.6 Enhance the existing bicycle/pedestrian network by adding planting pockets with street trees to provide shade, calm traffic and enhance the pedestrian realm, prioritizing routes that link destinations such as employment centers, commercial centers, schools and downtown Dixon.

Policy M-4.7 Continue to implement traffic calming measures to slow traffic on local and collector residential streets, and contribute to the safety of non-motorized road users.

Policy M-4.8 Require new or redesigned parking lots to optimize pedestrian and bicycle safety and provide green infrastructure for aesthetic and stormwater management purposes.

GOAL M-6. Provide for safe, efficient goods movement by road and rail.

Policy M-6.1 Maintain designated truck routes within Dixon and regulate truck traffic to allow for both economic development and a high quality of life in residential neighborhoods.

Policy M-6.2 Continue to coordinate with State and regional agencies on the planning and implementation of the regional transportation system.

Policy M-6.3 Pursue opportunities to leverage Dixon’s rail infrastructure to provide enhanced cargo service, including new track connections and configurations to support rail served businesses.

Policy M-6.5 Coordinate proactively with rail operators to minimize negative impacts and maximize benefits to Dixon from any future rail service that runs through Dixon.

Policy M-6.6 Support improvements to regional goods movement facilities, such as truck scales, that facilitate local economic development.

Metropolitan Transportation Commission/Association of Bay Area Governments

The Metropolitan Transportation Commission (MTC) is the transportation planning, financing and coordinating agency for the nine-county San Francisco Bay Area, which includes but is not limited to Solano County. The MTC was created by the California Legislature in 1970 to plan, finance and coordinate the Bay Area’s transportation system. The MTC’s scope over the years has expanded to address other regional issues, including housing and development. The MTC, alongside the Association of Bay Area Governments (ABAG), was responsible for developing *Plan Bay Area 2050*, a 30-year regional plan that charts the course for the Bay Area. *Plan Bay Area 2050* is the Bay Area’s regional long-range plan adopted by MTC and the ABAG. The plan was developed in collaboration with Bay Area residents, partner agencies, and nonprofit organizations.

3.8.3 IMPACTS AND MITIGATION MEASURES

GHG THRESHOLDS OF SIGNIFICANCE AND METHODOLOGY

Analysis Approach

Consistent with Appendix G of the CEQA Guidelines, climate change-related impacts are considered significant if implementation of the proposed Project would do any of the following:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The vast majority of individual projects do not generate sufficient GHG emissions to create a project-specific impact through a direct influence to climate change; therefore, the issue of climate change

typically involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15355). It should be noted that GHG and climate change impacts are cumulative by their very nature, since they have global (not local) effects. Therefore, the impact analysis provided below provides an analysis of GHG and climate change impacts for both project and cumulative-level analyses.

For individual proposed projects, the significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds, or consistency with a regional GHG reduction plan (such as a Climate Action Plan). However, the City of Dixon does not currently have a formal GHG emissions reduction plan or recommended emissions thresholds for determining significance associated with GHG emissions from development projects.

Since no other local or regional Climate Action Plan is in place, the Project is assessed based on its consistency with CARB's adopted Scoping Plans, including the Project's compliance with relevant Scoping Plan measures, as well as the latest RTP/SCS for the region within which the Project is located within (i.e., the Sacramento Area Council of Governments (SACOG) MTP/SCS). It should be noted that the Scoping Plan is consistent with the AB 1279 GHG reduction targets of achieving carbon neutrality by 2045, and reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. Therefore, consistency with the CARB's most recent Scoping Plan would also demonstrate consistency with the carbon neutrality requirements encapsulated by AB 1279.

Therefore, this analysis provides a qualitative assessment of the Project's compliance with the applicable plans, policies, and regulations for the purposes of reducing greenhouse gas emissions to determine whether the Project would have a significant impact on the environment relative to GHGs. Separately, disclosure of the Project's estimated construction and operation-related GHG emissions are provided for the purposes of disclosure.¹⁹

GHG IMPACTS AND MITIGATION MEASURES

Impact 3.8-1: Project implementation would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. (Less than Significant)

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. A project's GHG emissions are at a micro-scale relative to global emissions, but could result in a cumulatively considerable

¹⁹ Project GHG emissions were provided using the latest version of CalEEMod (v2022.1), which represents the Air District's recommended modeling tool for estimating emissions for projects under CEQA.

incremental contribution to a significant cumulative macro-scale impact. Implementation of the Project would contribute to increases of GHG emissions that are associated with global climate change. Estimated GHG emissions attributable to Project development would be primarily associated with increases of CO₂ and other GHG pollutants, such as methane (CH₄) and nitrous oxide (N₂O), from mobile sources and utility usage.

The Project's short-term construction-related and long-term operational GHG emissions were estimated using the California Emission Estimator Model (CalEEMod)TM (v.2022.1.1.21). CalEEMod is a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify GHG emissions from land use projects. The model quantifies direct GHG emissions from construction and operation (including vehicle use), as well as indirect GHG emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. Emissions are expressed in annual metric tons of CO₂ equivalent units of measure (i.e., MT CO₂e), based on the global warming potential of the individual pollutants.

SHORT-TERM CONSTRUCTION GHG EMISSIONS

Estimated maximum GHG emissions associated with construction of the proposed Project are summarized in **Table 3.8-2**. These emissions include all worker vehicle, vendor vehicle, hauler vehicle, and off-road construction vehicle GHG emissions. For the purposes of this analysis, based on input from the Project applicant, the proposed Project is assumed to commence construction in 2025 and finish in 2027. The construction schedule was provided by the Project applicant. See Appendix B for further detail.

TABLE 3.8-2: TOTAL PROJECT CONSTRUCTION GHG EMISSIONS (MT CO₂E/YEAR)

YEAR	BIO- CO ₂	NON-BIO- CO ₂	TOTAL CO ₂	CH ₄	N ₂ O	CO ₂ E
2025	0	2,228	2,228	0.05	0.14	2,274
2026	0	1,022	1,022	0.02	0.07	1,044
2027	0	992	992	0.02	0.07	1,013
Total	0	4,242	4,242	0	0	4,331

SOURCES: CALEEMOD (v.2022.1.1.21)

As presented in the table, short-term construction emissions of GHGs are estimated to be a total of approximately 4,331 MT CO₂e.

OPERATIONAL GHG EMISSIONS

The operational GHG emissions estimate for the proposed Project includes on-site area, energy, mobile, waste, and water emissions. Estimated GHG emissions associated with operation of the proposed Project are summarized in **Table 3.8-3**. It should be noted that CalEEMod does not account for Governor Newsom's Zero-Emission by 2035 Executive Order (N-79-20), which requires that all new cars and passenger trucks sold in California be zero-emission vehicles by 2035; CalEEMod also does not account for the new CARB rules related to truck electrification (e.g. Advanced Clean Trucks Regulation). The new Executive Order and CARB rules are anticipated to substantially reduce the operational emissions (i.e., mobile emissions) associated with passenger vehicles and freight trucks over time. The operational emissions results provided in Table 3.8-3 are likely an overestimate for mobile emissions, given the state's

ongoing effort to increase electric vehicles and trucks. As shown in the following table, the annual GHG emissions associated with the proposed Project would be approximately 24,417 MT CO₂e.

TABLE 3.8-3: OPERATIONAL GHG EMISSIONS AT BUILDOUT (METRIC TONS/YEAR)

	BIO- CO ₂	NON-BIO- CO ₂	TOTAL CO ₂	CH ₄	N ₂ O	CO ₂ E
Area	0	24.1	24.1	<0.01	<0.01	24.2
Energy	0	3,647	3,647	0.48	0.04	3,672
Mobile	0	16,684	16,684	0.92	0.92	17,006
Waste	131	0	131	13.1	0	460
Water	62.7	72.2	135	6.44	0.15	342
Total	193.7	20,427	20,621	21.0	1.12	24,417

SOURCES: CALEEMOD (V.2022.1.1.21)

CONSISTENCY WITH 2022 SCOPING PLAN

The CARB’s 2022 Scoping Plan (the latest version of the Scoping Plan) provides policies that are considered needed to meet the State’s mid-term and long-term GHG emissions reduction targets. Specifically, the CARB’s 2022 Scoping Plan identifies that it “...lays out the sector-by-sector roadmap for California, the world’s fifth largest economy, to achieve carbon neutrality by 2045 or earlier...”. The Scoping Plan addresses recent legislation and direction from Governor Newsom, by extending and expanding upon the earlier Scoping Plans with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045, and adding carbon neutrality as a science-based guide and touchstone for California’s climate work. The Scoping Plan is therefore consistent with the AB 1279 GHG reduction targets of achieving carbon neutrality by 2045, and reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. The Project’s consistency with the applicable 2022 Scoping Plan policies is discussed in **Table 3.8-4**.

TABLE 3.8-4: PROJECT CONSISTENCY WITH THE 2022 SCOPING PLAN

POLICY	PROJECT CONSISTENCY
Transportation Electrification	
Convert local government fleets to ZEVs and provide EV charging at public sites	No Conflict. While this goal is not applicable to an individual commercial, residential, and industrial development project, the Project includes an EV parking requirement, consistent with the latest version of the Title 24 Energy Code.
Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed state building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans)	
VMT Reduction	
Reduce or eliminate minimum parking standards	No Conflict. The Project is implementing neighborhood design improvements such as pedestrian network improvements, traffic calming measures, and would incorporate mixed-use, walkable, transit-oriented, and compact infill development. The Project would also include an extensive park system that would connect the central portion of the Project site to the Project’s roadways and roadways adjacent to the Project site.
Implement Complete Streets policies and investments, consistent with general plan circulation element requirements	

POLICY	PROJECT CONSISTENCY
Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, etc.	<p>No Conflict. The Project is implementing neighborhood design improvements such as pedestrian network improvements, traffic calming measures, and would incorporate mixed-use, walkable, transit-oriented, and compact infill development. The Project would also include an extensive park system that would connect the central portion of the Project site to the Project’s roadways and roadways adjacent to the Project site.</p>
Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking	
Implement parking pricing or transportation demand management pricing strategies	
Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing the allowable density of a neighborhood)	
Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert “greenfield” land to urban uses (e.g., green belts, strategic conservation easements)	
Building Decarbonization	
Adopt all-electric new construction reach codes for residential and commercial uses	<p>No Conflict. Although this goal is not applicable to a new individual commercial, residential, and industrial development project, the Project intends to supply a notable proportion of its electricity demand from renewable sources associated with onsite solar photovoltaic generation, consistent with the Energy Code. In addition, the site’s building energy efficiency will exceed Title 24 Building Envelope Energy Efficiency Standards by at least 1%.</p>
Adopt policies and incentive programs to implement energy efficiency retrofits for existing buildings, such as weatherization, lighting upgrades, and replacing energy-intensive appliances and equipment with more efficient systems (such as Energy Star-rated equipment and equipment controllers)	
Adopt policies and incentive programs to electrify all appliances and equipment in existing buildings such as appliance rebates, existing building reach codes, or time of sale electrification ordinances	
Facilitate deployment of renewable energy production and distribution and energy storage on privately owned land uses (e.g., permit streamlining, information sharing)	
Deploy renewable energy production and energy storage directly in new public projects and on existing public facilities (e.g., solar photovoltaic systems on rooftops of municipal buildings and on canopies in public parking lots, battery storage systems in municipal buildings)	

SOURCE: 2022 SCOPING PLAN, TABLE 1, APPENDIX D

In addition to Project commitments discussed in Table 3.8-4, the proposed Project’s operational emissions would be reduced as regulations are implemented by the CARB and other State agencies to comply with the statewide GHG reduction targets. Many of these regulations are already identified in

the 2022 Scoping Plan. These statewide actions are anticipated to reduce operational GHG emissions even further below those identified in Table 3.8-2 and Table 3.8-3. For example, the proposed Project’s transportation emissions would be expected to decline as vehicle efficiency standards are implemented beyond the Advanced Clean Cars II program and the Low Carbon Fuel Standard is strengthened. Furthermore, CalEEMod does not account for Governor Newsom’s Zero-Emission by 2035 Executive Order (N-79-20) or CARB’s subsequent regulations, which requires that all new cars and passenger trucks sold in California be zero-emission vehicles by 2035 and that heavy duty truck emissions be reduced by greater truck electrification. These programs are anticipated to substantially reduce the operational emissions (i.e., mobile emissions) associated with passenger vehicles and freight trucks further, over time.

Overall, the proposed Project would not conflict with the 2022 Scoping Plan. The proposed Project incorporates a wide array of construction- and operation-related Project features that reduce Project emissions. Therefore, the Project would be considered consistent with the 2022 Scoping Plan. Since the proposed Project would be consistent with the CARB’s 2022 Scoping Plan, buildout of the proposed Project would not interfere with the main programs the CARB has identified to support its conclusions that the State is on a trajectory to meet the 2045 GHG target. Overall, the proposed Project would not impede the 2022 Scoping Plan and would help the State to progress towards this target.

CONSISTENCY WITH THE MTC’S PLAN BAY AREA 2050

The MTC’s *Plan Bay Area 2050* is a 30-year plan that includes eleven strategy categories for housing, economy, transportation, and environment. These strategies include similar measures to the 2022 Scoping Plan, such as supporting energy efficiency. The Project’s consistency with the applicable Plan Bay Area 2050 strategy categories is discussed in **Table 3.8-5**.

TABLE 3.8-5: PROJECT CONSISTENCY WITH THE MTC’S PLAN BAY AREA 2050

STRATEGY CATEGORY	PROJECT CONSISTENCY
Housing: Protect and Preserve Affordable Housing	<u>No Conflict</u> . The Project provides for the development of additional, diverse housing that would serve to provide more housing supply for a housing market in California that is currently deemed in a crisis of supply. Moreover, the Project would not impact existing affordable housing supply.
Housing: Spur Housing Production for Residents of All Income Levels	<u>No Conflict</u> . The Project provides for the development of additional, diverse housing for all income levels, which would serve to provide more housing supply for a housing market in California that is currently deemed in a crisis of supply. Furthermore, the Project includes a mix of housing densities.
Housing: Create Inclusive Communities	<u>No Conflict</u> . The Project provides for the development of additional housing of varying densities and types, in a mixed-use development, which would foster the development of inclusive communities.
Economic: Improve Economic Mobility	<u>No Conflict</u> . The proposed Project would create local jobs as well as provide new shopping options for local and regional residents, thereby supporting economic vitality and mobility. The Project also reuses available land for mixed-income housing and essential services, consistent with this strategy category.
Economic: Shift the Location of Jobs	<u>No Conflict</u> . The proposed Project would create local jobs as well as provide new shopping options for local and regional residents, allowing for greater commercial densities, and investing in retail and industrial

	lands. Furthermore, the Project would serve as an incentive for employees to shift jobs to housing-rich areas, such as the Project site, since it is a mixed-use Project.
Transportation: Maintain and Optimize the Existing System	<u>No Conflict</u> . The Project would add roadways that would connect to the existing transportation system. Fees that would be paid as part of the Project would help support the maintenance and optimization of the nearby existing transportation system.
Transportation: Create Healthy and Safe Streets	<u>No Conflict</u> . The Project would be developed using the latest State and local requirements relating to creating healthy and safe streets. Development of the Project site would include a variety of uses to support and complement the proposed development, including public utility infrastructure, roadways, curb/gutters/sidewalks, other pedestrian facilities, private parking, street lighting, and street signage, which would enhance the safety and security of the Project site and its surroundings, by connecting to existing development.
Transportation: Build a Next-Generation Transit Network	<u>No Conflict</u> . The proposed Project would provide demand for increased local transit frequency, capacity, and reliability, thereby ensuring no conflict with this strategy category.
Environmental: Reduce Risks from Hazards	<u>No Conflict</u> . The Project would utilize electricity provided by Pacific Gas & Electric (PG&E) which is required to meet the future year renewable portfolio performance standards. In addition, future development associated with Project implementation would be required to meet the applicable requirements of the 2022 (or more current) Title 24 Building Energy Efficiency Standards. The Project also includes several mitigation measures, such as Mitigation Measure 3.3-1 and Mitigation Measure 3.3-2, which would reduce greenhouse gases. Therefore, the Project would reduce the risk from long-term climate change, by minimizing climate risks, where feasible.
Environmental: Expand Access to Parks and Open Space	<u>No Conflict</u> . The Project includes park and open space located throughout the central portion of the Project site, connecting the Project to various parts of the Project site and adjacent roadways. Therefore, the Project would expand local and regional access to parks and open space.
Environmental: Reduce Climate Emissions	<u>No Conflict</u> . The Project would utilize electricity provided by Pacific Gas & Electric (PG&E) which is required to meet the future year renewable portfolio performance standards. In addition, future development associated with Project implementation would be required to meet the applicable requirements of the 2022 (or more current) Title 24 Building Energy Efficiency Standards. The Project also includes several mitigation measures, such as Mitigation Measure 3.3-1 and Mitigation Measure 3.3-2, which would reduce greenhouse gases. Therefore, the Project would reduce the risk from long-term climate change, by minimizing climate risks, where feasible.

SOURCE: MTC, 2021

As shown in Table 3.8-5, the Project would not conflict with any of the GHG emissions reduction strategies contained in the MTC’s *Plan Bay Area 2050*. Therefore, the Project is considered to be consistent with MTC’s *Plan Bay Area 2050*.

EXECUTIVE ORDER S-3-05

The Executive Order S-3-05 2050 target has not been codified by legislation. However, studies have shown that, in order to meet the 2050 target, aggressive pursuit of technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. Because of the technological shifts required and the unknown parameters of the regulatory framework in 2050,

quantitatively analyzing the Project's impacts further relative to the 2050 goal is speculative for purposes of CEQA.²⁰

The CARB recognizes that AB 32 establishes an emissions reduction trajectory that will allow California to achieve the more stringent 2050 target: "These [greenhouse gas emission reduction] measures also put the State on a path to meet the long-term 2050 goal of reducing California's GHG emissions to 80 percent below 1990 levels. This trajectory is consistent with the reductions that are needed globally to stabilize the climate." In addition, the CARB's First Update to the Scoping Plan "lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050," and many of the emission reduction strategies recommended by the CARB would serve to reduce the proposed Project's post-2020 emissions level to the extent applicable by law:

- Energy Sector: Continued improvements in California's appliance and building energy efficiency programs and initiatives, such as the State's zero net energy building goals, would serve to reduce the proposed Project's emissions level. Additionally, further additions to California's renewable resource portfolio would favorably influence the Project's emissions level.
- Transportation Sector: Anticipated deployment of improved vehicle efficiency, zero-emission technologies, lower carbon fuels, and improvement of existing transportation systems all will serve to reduce the Project's emissions level.
- Water Sector: The Project's emissions level will be reduced as a result of further utilization of water conservation technologies.
- Waste Management Sector: Plans to further improve recycling, reuse and reduction of solid waste will beneficially reduce the Project's emissions level.

In his January 2015 inaugural address, Governor Brown expressed a commitment to achieve "three ambitious goals" that he wanted to see accomplished by 2030 to reduce the State's GHG emissions:

- Increasing the State's Renewable Portfolio Standard from 33 percent in 2020 to 50 percent in 2030;
- Cutting the petroleum use in cars and trucks in half; and
- Doubling the efficiency of existing buildings and making heating fuels cleaner.

These expressions of executive branch policy may be manifested in adopted legislative or regulatory action through the State agencies and departments responsible for achieving the State's environmental policy objectives, particularly those relating to global climate change.²¹

²⁰ California Air Resources Board (CARB). 2014. First Update to the Climate Change Scoping Plan. Website:

<http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm>. Accessed September 11, 2023.

²¹ Brown, Edmund G. Jr. 2015. Press Release: California Establishes Most Ambitious Greenhouse Gas Goal in North America. April 29.

Website: <https://www.gov.ca.gov/news.php?id=18938>. Accessed February 2, 2021.

Further, studies show that the State’s existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050. Even though these studies did not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, they demonstrated that various combinations of policies could allow the Statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the studies could allow the State to meet the 2050 target.²²

Given the proportional contribution of mobile source-related GHG emissions to the State’s inventory, recent studies also show that relatively new trends—such as the increasing importance of web-based shopping, the emergence of different driving patterns, and the increasing effect of web-based applications on transportation choices—are beginning to substantially influence transportation choices and the energy used by transportation modes. These factors have changed the direction of transportation trends in recent years and will require the creation of new models to effectively analyze future transportation patterns and the corresponding effect on GHG emissions. For the reasons described above, the proposed Project’s post-2020 emissions trajectory is expected to follow a declining trend, consistent with the 2030 and 2050 targets.

CONCLUSION

The proposed Project would be consistent with relevant plans, policies, and regulations associated with GHGs, notably the most recent version of the CARB’s Scoping Plan, and the MTC’s *Plan Bay Area 2050*. This would ensure that the proposed Project would be consistent with, and would not impair, the State’s carbon neutrality standard by year 2045 as established under AB 1279. The State is making progress toward reducing GHG emissions in key sectors such as transportation, industry, and electricity. Since the Project would be consistent with State GHG Plans, it would not impede the State’s goals of reducing GHG emissions 40 percent below 1990 levels by 2030, and of achieving carbon neutrality by 2045. The proposed Project would make a reasonable fair share contribution to the State’s GHG reduction goals, by implementing an array of Project features that would reduce GHG emissions, and therefore, the proposed Project’s GHG emissions would be considered to have a ***less than significant*** impact.

MITIGATION MEASURE(S)

None required

²² Energy and Environmental Economics, 2015. Pathways to Deep Carbonization in the United States. Website: http://deepdecarbonization.org/wp-content/uploads/2015/11/US_Deep_Decarbonization_Technical_Report_Exec_Summary.pdf. Accessed June 8, 2022.

This section identifies existing hazards and hazardous materials sites within the Project site and provides an analysis of potential impacts associated with implementation of The Campus Project.

For the purpose of this analysis, the term “hazardous material” refers to both hazardous substances and hazardous waste. A material is defined as “hazardous” if it appears on a list of hazardous materials prepared by a federal, tribal, State, or local regulatory agency, or if it possesses characteristics defined as “hazardous” by such an agency. A “hazardous waste” is a solid waste that exhibits toxic or hazardous characteristics (i.e., ignitability, corrosivity, reactivity, and/or toxicity). Other hazards, such as potential airport-related safety hazards for people residing/working at the Project site, interference with an adopted emergency response plan, and exposure of people/structures to risk involving wildland fires, are also addressed in this section.

One comment was received during the NOP comment period in regard to hazards. The comment was received by the Solano County Department of Resource Management and relates to the Dixon Downs/Mistler Farm closed landfill within the Project site (see Plates 2 and 3 of the Phase I Environmental Site Assessment for the location of this closed landfill). The County notes an understanding that the restricted area will be developed into roadways, a sidewalk with landscaping, and will be dedicated to the City with no intention of splitting the restricted area into several parcels. Public use is not intended for the restricted area and no buildings will be built within the restricted area. The County expresses concern about how the area of the closed landfill will be handled during development of the project. The County recommends the following issues be evaluated:

- How hazardous soil can be handled properly to protect workers from exposure and the environment during development;
- Maintenance of the restricted area after development;
- How the Project meets the post closure land use regulations to ensure that the public will not be exposed to hazards; and
- The County recommends mitigation to address the long-term safety of the public and residents in nearby dwellings (such as those directly across the street from the restricted area).

This section addresses the issues raised by the County.

The analysis included in this section is based, in part, on statements, data, and figures provided by the following reference materials:

- City of Dixon General Plan 2040 (May 2021);
- City of Dixon General Plan 2040 Environmental Impact Report, Public Review Draft (July 2020);
- *Phase I Environmental Site Assessment for the Pedrick Road Property (APNs 0111-040-010, -020, -030, -040, and 0111-080-050)*, prepared by Brusca Associates and dated September 30, 2020; and
- *Post-Excavation Soil Gas Survey, Abandoned Mistler Farm Landfill Clean Closure for the Pedrick Road Property (APN 111-040-010)*, prepared by Brusca Associates and dated November 8, 2022.

3.9.1 ENVIRONMENTAL SETTING

METHODOLOGY

A Phase I Environmental Site Assessment (ESA) was prepared for the Project site; refer to Appendix J. The scope of the Phase I ESA included a review of physical setting information sources, historical research, site reconnaissance, property and adjoining sites reconnaissance, interviews with informed persons, and a review of regulatory agency listings and records, including an environmental database report performed by a third-party agency. The purpose of the Phase I ESA is to identify any recognized environmental conditions (RECs) in connection with the Project site to determine if the potential exists for significant site contamination from either on- or off-site sources. A REC means the presence or likely presence of any hazardous substances or petroleum products on a property due to any release to the environment, under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment. The term is not intended to include *de minimis* conditions that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. A historical REC means a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

A Post-Excavation Soil Gas Survey (Phase II ESA) was also prepared; refer to Appendix J. The Phase II ESA included background information regarding the property and the landfill clean closure process; a description of the post-excavation soil gas sampling activities; laboratory data; and a discussion regarding results.

HAZARDOUS MATERIALS AND WASTE

Hazardous Materials

A hazardous material is a substance or combination of substances which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may either (1) cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating irreversible illness; or (2) pose a substantial present or potential hazard to human health and safety, or the environment when improperly treated, stored, transported, or disposed of. Hazardous materials are mainly present because of industries involving chemical byproducts from manufacturing, petrochemicals, and hazardous building materials.

Hazardous Waste

Hazardous waste is the subset of hazardous materials that have been abandoned, discarded, or recycled and is not properly contained, including contaminated soil or groundwater with concentrations of chemicals, infectious agents, or toxic elements sufficiently high to increase human mortality or to destroy the ecological environment. If a hazardous material is spilled and cannot be effectively picked up and used as a product, it is considered to be hazardous waste. If a hazardous material site is unused, and it is obvious

there is no realistic intent to use the material, it is also considered to be a hazardous waste. Examples of hazardous materials include flammable and combustible materials, corrosives, explosives, oxidizers, poisons, materials that react violently with water, radioactive materials, and chemicals.

Transportation of Hazardous Materials

The transportation of hazardous materials within California is subject to various federal, State, and local regulations. The City has no direct authority to regulate the transport of hazardous materials on State highways or rail lines. Transportation of hazardous materials by truck and rail is regulated by the U.S. Department of Transportation (DOT). DOT regulations establish criteria for safe handling procedures. It is illegal to transport explosives or inhalation hazards on any public highway not designated for that purpose, unless the use of the highway is required to permit delivery, or the loading of such materials (California Vehicle Code Section 31602(b), 32104(a)). The California Highway Patrol (CHP) designates through routes to be used for the transportation of hazardous materials. Transportation of hazardous materials is restricted to these routes except in cases where additional travel is required from that route to deliver or receive hazardous materials to and from users.

PHYSICAL SETTING

Current Use of Property

The Project site is currently vacant/undeveloped and consists primarily of farmland. Irrigation canals are located throughout the site. An irrigation water well (identified as DW-8) is located near the southwesterly corner of the site, and multiple irrigation water control features (e.g., valves, control boxes, standpipes, etc.) are situated along the site's western boundary. A rectangular, approximately seven-acre area within the northwestern portion of the site is vacant and is not subject to active agricultural uses. This vacant area is associated with the former location of the Mistler Farm facility and is currently used for storage. Four groundwater monitoring wells are located within the southern portion of the former Mistler Farm facility area. The Mistler Farm facility closed landfill is shown in Plates 2 and 3 of the Phase I ESA (Appendix K).

Surrounding Uses

Uses within the surrounding area include the following:

- North: Immediately north of the Project site is vacant farmland. North of the vacant farmland is a commercial property associated with truck sales and service (TEC Equipment). Interstate 80 (I-80) is located to the northwest.
- South: Immediately south of the Project site are (from east to west) are commercial/industrial uses associated with auto/trucking uses (Guzman & Sons Trucking, Chavez Trucking) and agricultural uses. Union Pacific Railroad tracks are located southeast of the Project site.
- East: Immediately east of the Project site is Pedrick Road. East of Petrick Road are (from north to south) agricultural uses and commercial/industrial properties associated with warehousing/manufacturing and auto/trucking uses (Campbell Soup Supply Company, D&G Diesel and Parts, Menezes Brothers, Inc.).

- West: Immediately west of the Project site are (from north to south) agricultural uses and a commercial/industrial property associated with warehousing/distribution uses (GE Dixon Distribution).

HAZARDS ASSESSMENT

Historic Site Conditions

According to historical information obtained as part of the Phase I ESA, the Project site never been significantly developed and has been used exclusively for farming (predominantly row crops). As early as the 1930s, two rural residences were situated within the northwestern portion of the site and one residence was located within the northeastern portion of the site. A farm facility (Mistler Farm/Mistler Trucking) was constructed by the 1970s within the approximately seven-acre area in the northwestern portion of the site. The farm facility included multiple structures and a yard area. In addition, the western portion of the Mistler Farm facility was used as unpermitted landfill. An equipment repair garage was constructed by the mid-1980s within the central portion of the farm facility and much of the seven-acre facility was used for equipment, vehicles, and materials storage. It is indicated that aboveground storage tanks (ASTs) were used at the farm facility, including a 10,000-gallon diesel AST. The former Mistler Farm facility was razed around the early 2000s; since then, the farm facility area has been generally unused, except for storage of beehive boxes and occasional storage of hay.

The onsite unpermitted landfill and former AST within the Project site are described further below.

Onsite Abandoned Landfill

The Phase I ESA indicates that an open pit was excavated in the western portion of the former Mistler Farm facility (located within the northwestern portion of the Project site) and that various wastes were disposed/landfilled in the pit. Currently, ground surfaces within portions of the former landfill area are depressed up to about three feet with respect to surrounding grades, possibly due to settlement of landfilled materials.

A subsurface investigation in the area of the abandoned landfill was conducted in 2005, and included the excavation of exploratory trenches in the landfill and collection of a limited number of waste samples for laboratory analysis. A Remedial Action Plan for the abandoned landfill was prepared in 2015, which included a description of proposed methods and guidelines for excavation, sorting, and segregation of the landfilled wastes, and plans for onsite recycling and off-site disposal of the wastes. The Phase I ESA concludes that the data from those investigations are generally not sufficient to evaluate potential environmental impacts attributable to the landfill, including underlying soil, groundwater, and/or soil gas impacts (i.e., landfill gases such as methane). Accordingly, a Site Investigation of the landfill area was performed in 2020, concurrent with the Phase I ESA. The Site Investigation included a review of past investigations and historical aerial photography of the landfill; a geophysical survey of the landfill area; exploratory trenching within the landfill and the collection of landfilled waste and underlying soil samples for laboratory analysis; the advancement of borings within and surrounding the landfill and the collection of groundwater samples from the borings for laboratory analysis; and the installation of temporary soil gas probes within and surrounding the landfill and the collection of soil gas samples from the probes for

laboratory analysis. The results of the Site Investigation indicated that most or all of the landfilled materials may be characterized as a California hazardous waste for disposal purposes.

As discussed in the Phase I ESA, the results of testing native soils underlying the landfill and groundwater beneath and near the landfill do not indicate significant impact conditions. Volatile organic compounds (VOCs) were detected in soil gas samples collected from the area of the landfill; however, the Phase I ESA concludes that these conditions potentially could be mitigated via removal of the landfilled wastes and excluding future residential and other sensitive use from the affected area. Due to the identified contaminant conditions and the open regulatory agency status, the Phase I ESA determined that the abandoned landfill at the Project site is considered a REC.

A Clean Closure Plan for the landfill that described the planned excavation and removal of all landfilled wastes was prepared in February 2021 and approved by the Solano County Department of Resource Management, the lead enforcement agency for oversight of landfills within Solano County, in August 2021. The wastes contained in the former abandoned landfill at the Project site were completely excavated in November 2021 and subsequently removed from the site for proper offsite disposal in accordance with the provisions of the approved Clean Closure Plan. The resulting excavation was subsequently backfilled with clean soils. Observations and verification testing performed during the waste excavation work confirmed that all landfilled wastes were removed and that no soil contaminants remained.

The Post-Excavation Soil Gas Survey (Phase II ESA) details results of a post-excavation soil gas survey to evaluate any residual VOCs in soil gas in the area of the removed landfill. As indicated, post-excavation soil gas samples contained some of the tested VOCs at concentrations above the laboratory reporting limits. However, the vast majority of VOC detections were very low and below environmental screening level (ESL) values for both residential and commercial/industrial sites. The Phase II ESA notes that a few of the soil gas samples collected during the initial post-excavation soil gas sampling conducted in June 2022 contained specific VOCs (PCE, TCE, benzene, and/or chloroform) at concentrations above ESL values. As such, step-out sampling was conducted in October 2022 to further evaluate the extent of these impacts. The step out soil gas sampling did not identify elevated concentrations of the tested VOCs with respect to residential or commercial/industrial ESL values, except that two of the soil gas samples contained benzene at concentrations that are slightly above the very conservative residential ESL value. These two soil gas samples were collected within the deeper depth interval (nine to 14 feet); the co-located soil gas samples in the shallow depth interval (four to nine feet) did not contain elevated concentrations of benzene. Considering that the shallow data is more relevant to evaluation of future vapor intrusion risks, the Phase II ESA concluded that the benzene results for the deeper samples are not a significant concern, and that those locations are appropriate for establishing limits for a residential deed-restricted area. Additionally, some of the initial post-excavation soil gas samples contained methylene chloride, and two of the samples contained that VOC at concentrations that are somewhat elevated. However, the laboratory's chemist noted that methylene chloride is a common laboratory contaminant and also was detected in the laboratory method blank sample. Methylene chloride was not detected in the pre-excavation soil gas samples; therefore, the Phase II ESA does not consider it a potential contaminant of concern at the site. The Phase II ESA provides a recommended area to establish a deed restriction to prohibit future residential structures and other sensitive uses, as well as an area to prohibit

future commercial/industrial structures. The Phase II ESA notes that it may be possible to allow for some construction within the deed restricted areas provided that agency-approved vapor intrusion mitigation measures (such as properly designed vapor barriers and venting systems) are implemented.

A deed restriction was recorded for the Restricted Area of the former landfill site (southwestern corner of APN 0111-040-010 and the northwestern corner of APN 0111-040-040) in 2023. The deed restriction requires contaminated soils brought to the surface through grading activities to be managed in accordance with all applicable provisions of local, State, and federal law. The deed restriction further prevents the construction of any buildings on the Restricted Area, including residential uses, hospitals, schools, day-care centers, or industrial, commercial, or office uses.

10,000-Gallon Diesel Aboveground Storage Tank (AST)

A subsurface investigation conducted in 2005 in the area of a former 10,000-gallon diesel AST (associated with the former Mistler Farm facility, located within the northwestern portion of the Project site) identified diesel impact to soil and groundwater. Subsequently, remedial soil excavation was performed in this area in 2006 extending to a depth of about 20 feet. Additionally, groundwater monitoring wells were installed in the area of the AST and were sampled/tested over a period of time. Following the remedial and monitoring activities, it was concluded that the limited remaining residual petroleum hydrocarbons in the subsurface attributable to historical releases from the AST did not represent a significant threat to human health or the environment. A No Further Action Request report was prepared for the AST petroleum hydrocarbon contamination case in March 2011. The Central Valley Regional Water Quality Control Board (CVRWQCB) recently reviewed the case files related to the AST release and cleanup and prepared a letter dated September 23, 2020 indicating that further environmental work related to the release is not necessary, other than the proper destruction of the groundwater monitoring wells at the site. As such, the Phase I ESA determined that the onsite petroleum hydrocarbon contamination case associated with the former 10,000-gallon diesel AST is considered a historical REC, assuming that the groundwater monitoring wells will be properly removed.

Regulatory Database Search

Agency listings and records were reviewed and considered as part of the Phase I ESA to evaluate the environmental status and condition of the Project site. Agency research includes an agency listings database report through a third-party provider; the database records search (including search radii) meets and exceeds the agency listings search provisions of ASTM Standard E 1527-13.

The Project site appears on regulatory agency listings including the Solid Waste Information System (SWIS) listing pertaining to the onsite abandoned landfill and the Leaking Underground Storage Tank (LUST) database, apparently related to the petroleum hydrocarbon case at the site attributable to a former 10,000-gallon diesel AST, as described above.

A search of the environmental regulatory databases for listed sites as having potential environmental concern within proximity to the Project site (up to a one-mile radii) was conducted as part of the Phase I ESA. The search found the following adjoining sites on referenced leaking storage tank lists:

- **Campbell Soup Supply Company.** The Campbell Soup Supply Company operates a food processing facility at 8380 Pedrick Road, approximately 100 feet to the east of the Project site (across Pedrick Road). An unauthorized release of petroleum hydrocarbons to soil at the Campbell Soup Supply Company was discovered in 2002. Petroleum hydrocarbon staining was reportedly observed within a portion of a former AST secondary containment. The AST, previously located on the southwest corner of the Campbell Soup Supply site, was reportedly used to fuel trucks and other equipment. Groundwater sampling from an extraction well installed near the contamination area reportedly revealed elevated concentrations of petroleum hydrocarbons. Remedial action performed in 2006 included the excavation and removal of contaminated soil and the extraction of 45,000 gallons of groundwater from the excavation site. A temporary groundwater treatment system installed in December 2006 reportedly extracted, treated, and disposed of an additional 28,000 gallons of groundwater from the site. Later in 2011, product piping was discovered that previously connected the former AST to a former onsite boiler. Soil sampling conducted beneath the former product lines reportedly also revealed elevated concentrations of diesel. Subsequent remediation included the removal of the product piping lines along with the excavation of the 15.5 tons of petroleum hydrocarbon-impacted soil. Following the investigative, monitoring, and remedial work, it was determined that the remaining petroleum hydrocarbon concentrations on site were a low threat to human health and residual impact in shallow groundwater warranted a land use restriction for commercial usage. The Campbell Soup Supply site ultimately received a “No Further Action” letter from Solano County Department of Resource Management in 2016.
- **Milk Farm/Morgan’s Fruit Stand.** A former fuel service station and fruit market, Morgan’s Fruit Stand, operated at the property addressed as 6645 and 6646 Milk Farm Road, located approximately 500 feet to the west of the northwestern corner of the Project site (across I-80). An unauthorized release of petroleum hydrocarbons was discovered upon the removal of two 10,000-gallon gasoline underground storage tanks (USTs) in May 1989; a 500-gallon waste oil UST was also removed during site demolition later that year. Subsequent work following the UST removals included subsurface investigation including soil borings, installation of a groundwater monitoring well, soil vapor sampling in the vicinity of the former USTs and dispenser islands, were reportedly conducted from 1990 through 2011. Soil sampling and soil vapor sampling reportedly revealed low to non-detectable levels of residual petroleum hydrocarbons in onsite soils and soil vapor.

The Phase I ESA indicates that data do not suggest that any of the nearby listed sites, including those listed above, pose a significant threat to the environmental integrity of the Project site and are therefore not anticipated to have caused a recognized environmental condition (REC) at the site.

AIR TRAFFIC HAZARDS

There are no airports or private use airstrips within the City. The nearest regional public use airport is the University Airport, located approximately 3.4 miles to the northeast, in Yolo County. Other airports within the vicinity of the Project site include the Yolo County Airport, located approximately 6.7 miles northwest; the Nut Tree Airport, located approximately 10 miles southwest; and the Travis Air Force Base (AFB),

located approximately 13.6 miles southwest of the Project site. The Project site falls within Compatibility Zone E of the Airport Influence Area of the Travis AFB.¹

EMERGENCY RESPONSE

Emergency operations in the City's planning area are undertaken by the City of Dixon and Solano County.² The Solano County Office of Emergency Services (OES) oversees the development, establishment, and maintenance of programs and procedures related to natural or human-caused disasters in the County and is trained to properly respond to floods, earthquakes, major fires, storms, radiological or hazardous material incidents, aircraft accidents, mass casualty incidents, and any other emergency-related function. City and County departments coordinate fire suppression activities, evacuations, hazardous materials incidents, disaster exercises, planning, and use of resources through the SEMS/Incident Command System. Additionally, Solano County OES conducts emergency preparedness training and awareness presentations for citizens and various organizations to help the public be aware of how to act in case of a disaster or major emergency. For the City, disaster preparedness, response, and evacuation are coordinated by the Dixon Fire Department.

Emergency Evacuation Routes are shown in Figure NE-12 of the City's General Plan. Evacuation routes within the vicinity of the Project site include I-80, State Route 113 (SR-113), and Lincoln Street.

WILDLAND FIRES

The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point.

The California Department of Forestry and Fire Protection (CAL FIRE) classifies lands within State Responsibility Areas (SRAs) into Fire Hazard Severity Zones (FHSZs). These lands represent the risks associated with wildland fires and are designated by CAL FIRE as moderate, high, or very high FHSZs based on fuel loading, slope, fire weather, and other relevant factors. Incorporated areas such as the City are considered Local Responsibility Areas (LRAs), meaning that the City and/or other local fire districts are responsible for fire protection services.

There are no areas designated as moderate, high, or very high FHSZs within the City, including the Project site.³ The nearest high and very high fire FHSZs are located to the west of Dixon, along the western boundary of Solano County. Additionally, as discussed in the General Plan EIR, the Project site is classified as having little to no fire threat.⁴

¹ Solano County, 2015. *Travis Air Force Base Land Use Compatibility Plan*. October, 2015. Figure 1.

² City of Dixon, 2020. *General Plan 2040 Environmental Impact Report. Public Review Draft*. July, 2020. Page 3.8-15.

³ City of Dixon, 2021. *General Plan 2040*. May, 2021. Figure NE-10.

⁴ City of Dixon, 2020. *General Plan 2040 Environmental Impact Report. Public Review Draft*. July, 2020. Figure 3.8-3.

3.9.2 REGULATORY SETTING

FEDERAL

Aviation Act of 1958

The Federal Aviation Act resulted in the creation of the Federal Aviation Administration (FAA). The FAA is charged with the creation and maintenance of a National Airspace System.

Federal Aviation Regulations (CFR, Title 14)

The Federal Aviation Regulation establish regulations related to aircraft, aeronautics, and inspection and permitting.

Clean Air Act

The Federal Clean Air Act (FCAA) was first signed into law in 1970. In 1977, and again in 1990, the law was substantially amended. The FCAA is the foundation for a national air pollution control effort, and it is composed of the following basic elements: National Ambient Air Quality Standards (NAAQS) for criteria air pollutants, hazardous air pollutant standards, state attainment plans, motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

Clean Water Act

The Clean Water Act (CWA), which amended the Water Pollution Control Act (WPCA) of 1972, sets forth the Section 404 program to regulate the discharge of dredged and fill material into Waters of the United States and the Section 402 National Pollutant Discharge Elimination System (NPDES) to regulate the discharge of pollutants into Waters of the United States. The Section 401 Water Quality Certification program establishes a framework of water quality protection for activities requiring a variety of Federal permits and approvals (including CWA Section 404, CWA Section 402, Federal Energy Regulatory Commission Hydropower and Section 10 of the Rivers and Harbors Act).

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) introduced active Federal involvement to emergency response, site remediation, and spill prevention, most notably the Superfund program. The Act was intended to be comprehensive in encompassing both the prevention of, and response to, uncontrolled hazardous material releases. CERCLA deals with environmental response, providing mechanisms for reacting to emergencies and to chronic hazardous material releases. In addition to establishing procedures to prevent and remedy problems, it establishes a system for compensating appropriate individuals and assigning appropriate liability. It is designed to plan for and respond to failure in other regulatory programs and to remedy problems resulting from action taken before the era of comprehensive regulatory protection.

Environmental Protection Agency

The primary regulator of hazards and hazardous materials is the Environmental Protection Agency (EPA), whose mission is to protect human health and the environment. The City of Dixon is located within EPA Region 9, which includes Arizona, California, Hawaii, and New Mexico.

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act, as amended, is the statute regulating hazardous materials transportation in the United States. The purpose of the law is to provide adequate protection against the risks to life and property inherent in transporting hazardous materials in interstate commerce. This law gives the U.S. Department of Transportation and other agencies the authority to issue and enforce rules and regulations governing the safe transportation of hazardous materials.

Natural Gas Pipeline Safety Act

The Natural Gas Pipeline Safety Act authorizes the U.S. Department of Transportation Office of Pipeline Safety to regulate pipeline transportation of natural (flammable, toxic, or corrosive) gas and other gases as well as the transportation and storage of liquefied natural gas. The Office of Pipeline Safety regulates the design, construction, inspection, testing, operation, and maintenance of pipeline facilities. While the federal government is primarily responsible for developing, issuing, and enforcing pipeline safety regulations, the pipeline safety statutes provide for State assumption of the intrastate regulatory, inspection, and enforcement responsibilities under an annual certification. To qualify for certification, a state must adopt the minimum federal regulations and may adopt additional or more stringent regulations as long as they are not incompatible.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) established EPA's "cradle to grave" control (generation, transportation, treatment, storage and disposal) over hazardous materials and wastes. In California, the Department of Toxic Substances Control (DTSC) has RCRA authorization.

STATE

Airport Land Use Commission Law (Public Utilities Code Section 21670 *et seq.*)

The law, passed in 1967, authorized the creation of Airport Land Use Commissions (ALUCs) in California. Per the Public Utilities Code, the purpose of an ALUC is to protect public health, safety, and welfare by encouraging orderly expansion of airports and the adoption of land use measures that minimizes exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses (Public Utilities Code Section 21670). Furthermore, each ALUC must prepare an Airport Land Use Compatibility Plan (ALUCP). Each ALUCP, which must be based on a twenty-year planning horizon, should focus on broadly defined noise and safety impacts.

Assembly Bill 337

Per AB 337, local fire prevention authorities and CalFire are required to identify VHFHSZ in LRA. Standards related to brush clearance and the use of fire-resistant materials in FHSZ are also established.

California Code of Regulations

Title 3 of the California Code of Regulations (CCR) pertains to the application of pesticides and related chemicals. Parties applying regulated substances must continuously evaluate application equipment, the weather, the treated lands and all surrounding properties. Title 3 prohibits any application that would:

- Contaminate persons not involved in the application;
- Damage non-target crops or animals or any other public or private property; and
- Contaminate public or private property or create health hazards on said property.

Title 8 of the CCR establishes California Occupational Safety and Health Administration (Cal OSHA) requirements related to public and worker protection. Topics addressed in Title 8 include materials exposure limits, equipment requirements, protective clothing, hazardous materials, and accident prevention. Construction safety and exposure standards for lead and asbestos are set forth in Title 8.

Title 14 of the CCR establishes minimum standards for solid waste handling and disposal.

Title 17 of the CCR establishes regulations relating to the use and disturbance of materials containing naturally occurring asbestos.

Title 19 of the CCR establishes a variety of emergency fire response, fire prevention, and construction and construction materials standards.

Title 22 of the CCR sets forth definitions of hazardous waste and special waste. The section also identifies hazardous waste criteria and establishes regulations pertaining to the storage, transport, and disposal of hazardous waste.

Title 26 of the CCR is a combination of State regulations pertaining to hazardous materials and waste that are presented in other regulatory sections. Title 26 mandates specific management criteria related to hazardous materials identification, packaging, and disposal. In addition, Title 26 establishes requirements for hazardous materials transport, containment, treatment, and disposal. Finally, staff training standards are set forth in Title 26.

Title 27 of the CCR sets forth a variety of regulations relating to the construction, operation, and maintenance of the state's landfills. The title establishes a landfill classification system and categories of waste. Each class of landfill is constructed to contain specific types of waste (household, inert, special, and hazardous).

California Department of Transportation

Caltrans has adopted policy and guidelines relating to traffic noise as outlined in the Traffic Noise Analysis Protocol. The noise abatement criteria specified in the protocol are the same as those specified by the Federal Highway Administration (FHWA).

California Government Code Section 65302

This section, which establishes standards for developing and updating General Plans, includes fire hazard assessment and Safety Element content requirements.

California Health and Safety Code

Division 11 of the Health and Safety Code establishes regulations related to a variety of explosive substances and devices, including high explosives and fireworks. Section 12000 *et seq.* establishes regulations related to explosives and explosive devices, including permitting, handling, storage, and transport (in quantities greater than 1,000 pounds).

Division 12 establishes requirements for buildings used by the public, including essential services buildings, earthquake hazard mitigation technologies, school buildings, and postsecondary buildings. Section 13000 *et seq.* establishes State fire regulations and broadly applicable regulations, such as standards for buildings and fire protection devices, in addition to regulations for specific land uses, such as childcare facilities and high-rise structures.

Division 20 establishes DTSC authority and sets forth hazardous waste and underground storage tank regulations. In addition, the division creates a state superfund framework that mirrors the Federal program.

Division 26 establishes California Air Resources Board (CARB) authority. The division designates CARB as the air pollution control agency per Federal regulations and charges the Board with meeting Clean Air Act requirements.

California Vehicle Code Section 31600 (Transportation of Explosives)

This code establishes requirements related to the transportation of explosives in quantities greater than 1,000 pounds, including licensing and route identification.

California Public Resources Code

The State's Fire Safety Regulations are set forth in Public Resources Code Section 4290, which include the establishment of SRA.

Public Resources Code Section 4291 sets forth defensible space requirements, which are applicable to anyone who "...owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable material" (Section 4291(a)).

Food and Agriculture Code

Division 6 of the California Food and Agriculture Code establishes pesticide application regulations. The division establishes training standards for pilots conducting aerial applications as well as permitting and certification requirements.

State Oversight of Hazards and Hazardous Materials

The DTSC is primarily responsible for regulating the handling, use, and disposal of toxic materials. The State Water Resources Control Board (SWRCB) regulates discharge of potentially hazardous materials to waterways and aquifers and administers the basin plans for groundwater resources in the various regions of the state. The Regional Water Quality Control Board (RWQCB) oversees surface and groundwater.

Programs intended to protect workers from exposure to hazardous materials and from accidental upset are covered under OSHA at the federal and state level (Cal OSHA) and the California Department of Health Services (DHS) at the state level. Air quality is regulated through the CARB and Bay Area Air Quality Management District (BAAQMD). The State Fire Marshal is responsible for the protection of life and property through the development and application of fire prevention engineering, education, and enforcement; CalFire provides fire protection services for State and privately-owned wildlands.

Senate Bill 99

SB 99 requires cities and counties, upon the next revision of the housing element on or after January 1, 2020, to review and update the safety element to include information identifying residential developments in hazard areas that do not have at least two emergency evacuation routes (California Government Code Section 65302(g)(5)).

Water Code

Division 7 of the California Water Code, commonly referred to as the Porter-Cologne Water Quality Control Act, created the SWRCB and the RWQCB. In addition, water quality responsibilities are established for the SWRCB and RWQCBs.

LOCAL

Solano County Emergency Operations Plan (EOP)

The Solano County Emergency Operations Plan (EOP) establishes an Emergency Management System and the National Incident Management System. It provides for the integration and coordination of planning efforts of multiple jurisdictions within the County. This plan applies to any extraordinary emergency situation associated with any natural or human-caused hazard which may affect Solano County and that generates situations requiring planned, coordinated responses by multiple agencies or jurisdictions. The provisions, policies, and procedures of the County's EOP are applicable to all agencies and individuals having responsibilities for emergency preparedness, response, recovery and/or mitigation in Solano County.

Solano County Multi-Jurisdictional Hazard Mitigation Plan

The Solano County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) is a Countywide plan that identifies risks and ways to minimize damage from natural and human-caused hazards. The County MJHMP was last comprehensively updated in March 2022. The purpose of the MJHMP is to guide hazard mitigation planning to better protect the people and property of the County from the effects of hazard events. The MJHMP was also developed to ensure the County and participating jurisdictions' continued eligibility for certain federal disaster assistance. Volume II of the MJHMP contains the annex for participating jurisdictions within the County, including the City of Dixon.

Certified Unified Program Agency

The Certified Unified Program Agencies consolidates, coordinates, and makes consistent hazardous materials and hazardous waste programs (program elements). The Solano County Department of

Resource Management, Environmental Health Services Division is the Certified Unified Program Agency (CUPA) for all cities and unincorporated areas within Solano County. The Solano County CUPA is the local administrative agency that has regulatory oversight over the implementation of hazardous materials and hazardous wastes regulations in Solano County administers the following six programs:⁵

- Hazardous Materials Business Plans;
- Hazardous Waste Generator;
- On-site Hazardous Waste Treatment (Tiered Permitting);
- Underground Storage Tank;
- Aboveground Petroleum Storage Act; and
- California Accidental Release Prevention.

Solano County Operational Area Plan For Emergency Response to Hazardous Materials Incidents

The Solano County Area Plan for Emergency Response to Hazardous Materials Incidents is the mechanism for implementation of a coordinated response to hazardous materials emergencies. It is updated and maintained by the Solano County CUPA.

Travis Air Force Base Land Use Compatibility Plan

To protect public safety and ensure the compatibility of new development with airport operations, the Travis Air Force Base Airport Land Use Compatibility Plan establishes certain requirements for new development within the Airport Influence Area. The Project site is located within Zone E, where review of projects proposing structures over 200 feet in height above ground level is required by the Solano County Airport Land Use Commission (ALUC).⁶ The Project site is located outside of the 60 dB CNEL noise contour.⁷

Dixon Emergency Operations Plan (EOP)

The City's EOP is based on the State SEMS and is designed to work with the rest of Solano County to quickly and effectively respond to disasters. If a major disaster occurs and a disaster declaration is declared, the County will coordinate mutual aid and response. The City's EOP Evacuation Annex provides an overview of evacuation functions, agency roles and responsibilities, and overall guidelines for the evacuation of people from hazardous areas to areas of safety in both incidents with and without warning. It describes the actions, roles, and responsibilities of coordinating and participating organizations and how the City will endeavor to manage the evacuation process before, during, and after the emergency. The annex addresses only general strategies used for any emergency; specific tactical actions are described in individual agency procedures.

⁵ Solano County, 2020. *Solano County CUPA Operational Area Plan for Emergency Response to Hazardous Materials Incidents*. June 2020. Page 11.

⁶ Solano County, 2015. *Travis Air Force Base Land Use Compatibility Plan*. October, 2015. Figure 1.

⁷ Solano County, 2015. *Travis Air Force Base Land Use Compatibility Plan*. October, 2015. Figure 2.

Dixon General Plan

The Dixon General Plan contains the following goals and policies that are relevant to hazards and hazardous materials:

NATURAL ENVIRONMENT

GOAL NE-3. Optimize the use of available resources by encouraging residents, businesses, and visitors to reuse and recycle.

Policy NE-3.3 Continue to promote the safe disposal of household hazardous waste through public education.

GOAL NE-4. Protect life and property from natural and human-made hazards and provide quick, effective response to disasters and emergencies.

Policy NE-4.11 Evaluate proximity to fire hazard and wildland-urban interface areas and feasibility of maintaining defensible space as part of the development review process.

Policy NE-4.12 Ensure adequate firefighting infrastructure, including water supply and pressure, road and building clearance for firefighting vehicles, and clear and legible street signage throughout the community.

Action NE-4.D Work with the County Public Health Department and Office of Emergency Services to promote public awareness of local hazards and educate the public about how to minimize personal exposure and how to respond to emergency events.

Policy NE-4.27 Continue to maintain an Emergency Operations Plan, Emergency Response Plan, Local Hazard Mitigation Plan, and Risk and Resilience Plan to effectively prepare for, respond to, recover from, and mitigate the effects of natural or human-caused disasters that require the planned, coordinated response of multiple agencies or jurisdictions.

Policy NE-4.30 Address the safety needs of occupants of evacuation-constrained parcels via road construction and design, operating evacuation assistance programs in conjunction with local transit providers to help those with limited mobility or lacking vehicle access, and by ensuring that evacuation routes remain operational in the event of an emergency.

Policy NE-4.31 Coordinate between departments to ensure that evacuation routes, as shown in Figure NE-12, are able to remain operational in the event of an emergency.

Policy NE-4.32 Require new development to be served by at least two access points.

GOAL NE-5. Minimize air, soil, noise, and water pollution as well as community exposure to hazardous conditions.

Policy NE-5.14 Continue to require remediation of hazardous material releases from previous land uses as part of any redevelopment activities.

Policy NE-5.15 Regulate development on sites with known contamination of soil or groundwater to ensure that construction workers, future occupants, adjacent residents, and the environment are adequately protected from hazards associated with contamination.

MOBILITY

GOAL M-1. Plan, design, construct, and maintain a transportation network that provides safe and efficient access throughout the city and optimizes travel by all modes.

Policy M-1.7 Coordinate transportation planning with emergency service providers to ensure continued emergency service operation and service levels.

GOAL M-2. Manage the city's transportation system to minimize congestion, improve flow and improve air quality.

Policy M-2.10 Ensure adequate emergency vehicle access in all areas of Dixon by continuing to involve the Police and Fire Departments in the development review process.

GOAL M-6. Provide for safe, efficient goods movement by road and rail.

Policy M-6.1 Maintain designated truck routes within Dixon and regulate truck traffic to allow for both economic development and a high quality of life in residential neighborhoods.

PUBLIC SERVICES AND FACILITIES

GOAL PSF-1. Provide police and fire services that are responsive to community needs and ensure a safe and secure environment for people and property in Dixon.

Policy PSF-1.2 Provide fire prevention and emergency response services that minimize fire risks and protect life and property

Policy PSF-1.3 Maintain police and fire equipment, facilities and staffing at levels that allow for effective service delivery.

Policy PSF-1.6 Continue to engage the Police and Fire departments in the development review process to ensure that projects are designed and operated in a manner that minimizes the potential for criminal activity and fire hazards and maximizes the potential for responsive police and fire services.

Dixon Municipal Code

Dixon Municipal Code Chapter 2.10, *Civil Emergencies*, aims to provide for the preparation and carrying out of plans for the protection of persons and property within the City in the event of an emergency; the direction of the emergency organization; and the coordination of the emergency functions with all other public agencies, corporations, organizations, and affected private persons. This chapter also establishes responsibilities for developing and carrying out the City's EOP.

Chapter 6.03, *Hazardous Materials Disclosure*, requires businesses that handle, store, or process hazardous materials to submit a disclosure form to the Fire Department annually.

Chapter 12.06, *Trucks and Truck Routes Within the City Limits*, establishes truck routes for the movement of goods, wares, and merchandise through the City.

Chapter 16.02, *Fire Code*, adopts an amended version of the 2022 California Fire Code of the State of California, amended to address local climatic, geological, or topographic conditions pursuant to Health and Safety Code Section 17958.

Chapter 16.04, *Grading Control*, contains the City's grading control ordinance. The ordinance sets forth rules and regulations to control land disturbances, landfill, soil storage, pollution, and erosion and sedimentation resulting from new development and redevelopment, and establishes procedures for the issuance, administration and enforcement of permits for such activities

Chapter 16.06, *Storm Water Control*, contains the City's storm water control ordinance. Section 16.06.180 requires the immediate notification of emergency response officials in the event of a release of hazardous materials that may result in an illegal discharge or pollutants discharge into storm water, the storm drain system, or waters of the United States.

3.9.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact related to hazards and hazardous materials if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and/or
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

METHODOLOGY AND ASSUMPTIONS

The Phase I ESA and Phase II ESA were reviewed to identify known contaminated soil and/or groundwater sites and the history of the Project site. This information was used to determine if construction activities associated with the proposed Project could encounter known subsurface contamination. The analysis also considers the range and nature of foreseeable hazardous materials use, storage, and disposal resulting from the development within The Campus project and identifies the primary ways that these hazardous materials could expose individuals or the environment to health and safety risks. Businesses that could locate in The Campus development are unknown at this time, but the general types of businesses and the range and types of uses (e.g., residential, retail stores, offices, and manufacturing uses) that are expected to be located in The Campus development would be limited by zoning to those that use minimal amounts of hazardous materials. Compliance with applicable federal, State, and local health and safety laws and regulations by residents and businesses in The Campus area is assumed in this analysis, and local and State agencies would be expected to continue to enforce applicable requirements to the extent that they do so now.

The following impact thresholds are scoped out because there would be no impact; refer to Section 6.0, Effects Not Found to be Significant.

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

IMPACTS AND MITIGATION

Impact 3.9-1: Implementation of the proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. (Less than Significant)

Generally, the exposure of persons to hazardous materials could occur in the following manners: 1) improper handling or use of hazardous materials or hazardous wastes during construction or operation of future development, particularly by untrained personnel; 2) an accident during transport; 3) environmentally unsound disposal methods; or 4) fire, explosion or other emergencies. The severity of potential effects varies with the activity conducted, the concentration and type of hazardous material or wastes present, and the proximity of sensitive receptors.

SHORT-TERM CONSTRUCTION IMPACTS

Construction activities associated with development of the proposed Project may involve the routine transport, use, or disposal of hazardous materials, such as paints, sealants, lubricants, solvents, adhesives, cleaners, or petroleum-based fuels or hydraulic fluid used for construction equipment. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for hazards associated with the transport and use of hazardous materials. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and federal law. These activities would also be short-term and would cease upon completion of construction.

The use, storage, transport, and disposal of construction-related hazardous materials would be required to conform to existing laws and regulations. Compliance with applicable laws and regulations governing the use, storage, transportation, and disposal of hazardous materials would ensure all potentially hazardous materials are used and handled in an appropriate manner and would minimize the potential for safety impacts. For example, all spills or leakage of petroleum products during construction activities are required to be immediately contained, the hazardous material identified, and the material remediated in compliance with applicable State and local regulations for the cleanup and disposal of that contaminant. All contaminated waste would be required to be collected and disposed of at an appropriately licensed disposal or treatment facility. As such, impacts in this regard would be *less than significant*.

LONG-TERM OPERATIONAL IMPACTS

The project proposes a mixed-use development consisting of a 48-acre Dixon Opportunity Center (DOC) area developed to accommodate technology, business park, and light industrial uses; approximately 144 acres of residential uses; and approximately 2.5 acres of commercial uses. While specific end users are unknown, the proposed DOC is envisioned to accommodate technology, business park, and light industrial uses, including light industrial, manufacturing, office, and research and development uses. Large and small scale industrial, manufacturing, office, research, heavy commercial uses, and other related uses could also be developed. Operation of the proposed mixed-use development would involve the use of small amounts of hazardous materials, such as cleansers, paints, fertilizers, and pesticides for cleaning and maintenance purposes. In addition, uses associated with the DOC area may involve the use, generation, storage, or transport of larger amounts of hazardous materials. Proposed uses would be subject to the hazardous materials programs overseen and implemented by the County CUPA. The CUPA routinely inspects and permits all hazardous waste generating businesses to ensure compliance with all applicable laws and regulations related to the use, storage, handling, transportation, treatment, and disposal of hazardous waste. Pursuant to the requirements established by the CUPA, any business locating to the DOC area that proposes to handle hazardous materials at amounts above the established threshold would be required to prepare a Hazardous Materials Business Plan (HMBP). The HMBP must detail the quantity of such materials stored on the premises, spill prevention and control measures, and an emergency response plan to address potential incidents related to such materials such as a release, fire, and/or disaster. Additionally, facilities storing acutely hazardous materials meeting threshold quantities would be required to prepare a Risk Management Plan (RMP) in accordance with the California Accidental Release Prevention program, which includes: a hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; a prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and an emergency response program that details emergency health care, employee training measures and procedures for informing the public and response agencies should an accident occur.

The use, storage, transport, and disposal of hazardous materials would be governed by existing regulations of several agencies, including the DTSC, EPA, DOT, Cal OSHA, and the Solano County CUPA. Compliance with applicable laws and regulations governing the use, storage, transportation, and disposal of hazardous materials would ensure all potentially hazardous materials are used and handled in an appropriate manner and would minimize the potential for safety impacts. Therefore, long-term operation

of the proposed Project is not anticipated to result in substantial hazards to the public or the environment arising from the routine use, storage, transport, and disposal of hazardous materials; impacts in this regard would be *less than significant*.

MITIGATION MEASURE(S)

None required.

Impact 3.9-2: Implementation of the proposed Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. (Less than Significant)

SHORT-TERM CONSTRUCTION IMPACTS

Construction activities associated with the proposed Project could release hazardous materials into the environment through reasonably foreseeable upset and accident conditions. As discussed above in Impact 3.9-1, potentially hazardous materials with the potential of accidental release may be used during future construction activities associated with project implementation, including substances such as paints, sealants, lubricants, solvents, adhesives, cleaners, or petroleum-based fuels or hydraulic fluid used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials utilized during construction. These activities would also be short-term and would cease upon completion of construction. Compliance with existing regulatory requirements would ensure construction workers and the general public are not exposed to significant risks related to hazardous materials during construction activities. Cal OSHA has regulations concerning the use of hazardous materials, including requirements for safety training, exposure warnings, availability of safety equipment, and preparation of emergency action/prevention plans. For example, all spills or leakage of petroleum products during construction activities are required to be immediately contained, the hazardous material identified, and the material remediated in compliance with applicable State and local regulations for the cleanup and disposal of that contaminant. All contaminated waste encountered would be required to be collected and disposed of at an appropriately licensed disposal or treatment facility.

Future construction activities could expose construction workers to accidental conditions as a result of existing potential contamination in on-site soils related to historical use of the Project site, including the former unpermitted landfill and 10,000-gallon diesel AST. The following analysis considers potential disturbance of hazardous materials on-site during construction.

10,000-Gallon Diesel Aboveground Storage Tank

Based on the Phase I ESA, a 2005 subsurface investigation in the area of a former 10,000-gallon diesel AST (associated with the former Mistler Farm facility, located within the northwestern portion of the Project site) identified diesel impact to soil and groundwater. Following remedial and monitoring activities, it was concluded that the limited remaining residual petroleum hydrocarbons in the subsurface attributable to historical releases from the AST did not represent a significant threat to human health or the environment. Therefore, impacts would be *less than significant* in this regard.

Onsite Abandoned Landfill

With regards to the onsite unpermitted landfill, a Site Investigation indicated that most or all of the landfilled materials may be characterized as a California hazardous waste for disposal purposes. Subsequently, wastes contained in the former abandoned landfill at the Project site were excavated and removed from the site for proper offsite disposal in accordance with the provisions of the approved Clean Closure Plan. The excavation was backfilled with clean soils. Observations and verification testing performed during the waste excavation work confirmed that all landfilled wastes were removed and that no soil contaminants remained. A post-excavation soil gas survey conducted as part of the Phase II ESA identified soil gas samples containing some of the tested VOCs at concentrations above the laboratory reporting limits. However, the vast majority of VOC detections were very low and below ESL values for both residential and commercial/industrial sites. Due to the presence of low levels of soil VOCs, a deed restriction was recorded for the Restricted Area of the former landfill site (southwestern corner of APN 0111-040-010 and the northwestern corner of APN 0111-040-040) in 2023. This deed restricted area is located in the northern half of the Project site along the western Project site boundary (see Plates 2 and 3 of the Phase I ESA). The deed restriction requires any contaminated soils which may be brought to the surface through grading activities to be managed in accordance with all applicable provisions of local, State, and federal law. A landscaped area and a dog park, which are allowable uses in the deed restricted area, are proposed. Compliance with standard construction practices and the existing regulatory requirements would reduce potential impacts in this regard to a level that is ***less than significant***.

LONG-TERM OPERATIONAL IMPACTS

The project proposes a mixed-use development consisting of a 48-acre DOC area developed to accommodate technology, business park, and light industrial uses; approximately 144 acres of residential uses; and approximately 2.5 acres of commercial uses. While specific end users are unknown, the proposed DOC is envisioned to accommodate technology, business park, and light industrial uses, including light industrial, manufacturing, office, and research and development uses. Large and small scale industrial, manufacturing, office, research, heavy commercial uses, and other related uses could also be developed.

A deed restriction has been recorded for a portion of the Project site associated with the former landfill site (southwestern corner of APN 0111-040-010 and the northwestern corner of APN 0111-040-040). The project does not propose to develop structures within the Restricted Area, consistent with the deed restriction.

Operation of the proposed mixed-use development would involve the use of small amounts of hazardous materials, such as cleansers, paints, fertilizers, and pesticides for cleaning and maintenance purposes. In addition, uses associated with the DOC area may involve the use, generation, storage, or transport of larger amounts of hazardous materials. Proposed uses would be subject to federal, State, and local regulations, including the hazardous materials programs overseen and implemented by the County CUPA. The CUPA routinely inspects and permits all hazardous waste generating businesses to ensure compliance with all applicable laws and regulations related to the use, storage, handling, transportation, treatment, and disposal of hazardous waste. Compliance with applicable laws and regulations governing hazardous materials would ensure all potentially hazardous materials are used and handled in an appropriate

manner and would minimize the potential for safety impacts. Thus, the proposed Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment and this impact would be *less than significant*.

MITIGATION MEASURE(S)

None required.

Impact 3.9-3: Implementation of the proposed Project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment. (Less than Significant)

Government Code Section 65962.5, commonly referred to as the “Cortese List,” requires the DTSC and the SWRCB to compile and update a regulatory sites list (pursuant to the criteria of the Section). The California Department of Health Services is also required to compile and update, as appropriate, a list of all public drinking water wells that contain detectable levels of organic contaminants and that are subject to water analysis pursuant to Health and Safety Code Section 116395. Government Code Section 65962.5 requires the local enforcement agency, as designated pursuant to Section 18051 of Title 14 of the California Code of Regulations, to compile, as appropriate, a list of all solid waste disposal facilities from which there is a known migration of hazardous waste.

According to the Phase I ESA, the Project site appears on regulatory agency listings, including the SWIS listing pertaining to the onsite unpermitted landfill and the LUST database, apparently related to the petroleum hydrocarbon case at the site attributable to a former 10,000-gallon diesel AST. With regards to the former 10,000-gallon diesel AST within the Project site, following remedial and monitoring activities that occurred, it was concluded that the limited remaining residual petroleum hydrocarbons in the subsurface attributable to historical releases from the AST did not represent a significant threat to human health or the environment. The Phase I ESA further indicates that data do not suggest that any listed sites within proximity to the Project site (up to a one-mile radii) pose a significant threat to the environmental integrity of the Project site and are therefore not anticipated to have caused a REC at the site.

With regards to the onsite unpermitted landfill, a Site Investigation indicated that most or all of the landfilled materials may be characterized as a California hazardous waste for disposal purposes. Due to the identified contaminant conditions and the open regulatory agency status, the Phase I ESA determined that the abandoned landfill at the Project site is considered a REC. Subsequently, wastes contained in the former abandoned landfill at the Project site were excavated and removed from the site for proper offsite disposal in accordance with the provisions of the approved Clean Closure Plan. The excavation was backfilled with clean soils. A Phase II ESA conducted a post-excavation soil gas survey to evaluate any residual VOCs in soil gas in the area of the removed landfill. The Phase II ESA indicates that post-excavation soil gas samples contained some of the tested VOCs at concentrations above the laboratory reporting limits. However, the vast majority of VOC detections were very low and below ESL values for both residential and commercial/industrial sites. A deed restriction was recorded for the Restricted Area of the

former landfill site (southwestern corner of APN 0111-040-010 and the northwestern corner of APN 0111-040-040) in 2023. The deed restriction requires contaminated soils brought to the surface through grading activities to be managed in accordance with all applicable provisions of local, State, and federal law. The deed restriction further prevents the construction of any buildings on the Restricted Area, including residential uses, hospitals, schools, day-care centers, or industrial, commercial, or office uses.

Therefore, the Project's potential impact related to the creation of a hazard to the public or the environment as a result of being included on a list of hazardous materials sites would be *less than significant*.

MITIGATION MEASURE(S)

None required.

Impact 3.9-4: The proposed Project would not be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and implementation of the proposed Project would not result in a safety hazard or excessive noise for people residing or working in the Project site. (Less than Significant)

The Project site is not located within two miles of a public airport or public use airport. The Project site falls within Compatibility Zone E of the Airport Influence Area of the Travis AFB.⁸ According to the Travis AFB Land Use Compatibility Plan, Zone E requires ALUC review for all projects proposing structures over 200 feet in height above ground level. There is no limit on the types of land uses, densities, or intensities, although large stadiums and similar uses should be avoided in this compatibility zone. The Project site is located outside of the 60 dB CNEL noise contour of the Travis AFB.⁹ Therefore, future development projects accommodated through implementation of the proposed Project would not result in excessive noise for residents or workers. Future development projects within the Project site would be reviewed for consistency with applicable standards established in the Travis AFB Land Use Compatibility Plan. Therefore, the project would not result in a safety hazard or excessive noise for people residing or working in the Project site; impacts would be *less than significant*.

MITIGATION MEASURE(S)

None required.

Impact 3.9-5: Implementation of the proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (Less than Significant)

The project proposes a mixed-use development that would include roadway modifications, including the construction of eastern and southern halves of the future four-lane arterial for Professional Drive; the extension of Professional Drive south along the west side of the roadway to provide a connection to

⁸ Solano County, 2015. *Travis Air Force Base Land Use Compatibility Plan*. October, 2015. Figure 1.

⁹ Solano County, 2015. *Travis Air Force Base Land Use Compatibility Plan*. October, 2015. Figure 2.

existing Vaughn Road; and the widening of Pedrick Road from Professional Drive to Entrance 'A' roadway adjacent to the project frontage. Development would be designed, constructed, and maintained in accordance with applicable standards, including vehicular access to ensure that adequate emergency access and evacuation would be maintained. Access for emergency vehicles would be required to be incorporated into project design. Construction activities that may temporarily restrict vehicular traffic would be required to implement appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures.

The proposed Project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. Fire and emergency services at the Project site are provided by the Dixon Fire Department. Development of the project would be required to comply with applicable City codes and regulations pertaining to emergency response and evacuation plans. Prior to construction, proposed site plans would be required to undergo review by the Dixon Fire Department to ensure that adequate emergency access would be maintained within the area. The proposed Project would also be required to comply with all applicable codes and ordinances for emergency access, including resolving any deficiencies in access that could preclude emergency evacuation or emergency response identified by the fire department. During project operation, the City and/or County EOP would be implemented and emergency response and evacuation would occur dependent upon the emergency situation, consistent with the respective EOPs. Therefore, the project would not impair implementation of or physically interfere an adopted emergency response plan or emergency evacuation plan; impacts would be *less than significant*.

MITIGATION MEASURE(S)

None required.

Impact 3.9-6: Implementation of the proposed Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. (Less than Significant)

The project proposes a mixed-use development consisting of a 48-acre DOC area developed to accommodate technology, business park, and light industrial uses; approximately 144 acres of residential uses; and approximately 2.5 acres of commercial uses. The Project site is located in an area that is predominately agricultural and industrial, which is not considered at a significant risk of wildfire. There are no steep slopes on or near the Project site. Development of the project would not exacerbate fire risks. Additionally, adjacent roadways and nearby urban development would effectively act as firebreaks for the site. Therefore, impacts from project implementation would be considered *less than significant* relative to exposure of people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

MITIGATION MEASURE(S)

None required.

CUMULATIVE IMPACTS

Related projects in the City may have the potential to interact with the proposed Project to the extent that a significant cumulative effect relative to hazards and hazardous materials may occur. The geographic setting for hazards and hazardous materials are typically localized and considers development within the City, as well as development within the vicinity of the Project site.

Impact 3.9-7: Implementation of the proposed Project, in combination with other cumulative development, would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. (Less than Significant)

Construction activities associated with future development projects may involve the routine transport, use, or disposal of hazardous materials. However, the construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for hazards associated with the transport and use of hazardous materials. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and federal law.

Existing and future uses within the City are likely to use, store, transport, and dispose of hazardous materials. Residential and commercial uses do not typically involve the use or storage of hazardous substances other than limited quantities of hazardous materials such as solvents, fertilizers, pesticides, and other materials used for regular maintenance of buildings and landscaping. The quantities of these materials would not typically be at an amount that would pose a significant hazard to the public or the environment. Industrial uses may involve the use, generation, storage, or transport of larger amounts of hazardous materials. The use, storage, transport, and disposal of hazardous materials would be governed by existing regulations of several agencies, including the DTSC, EPA, DOT, Cal OSHA, and the Solano County CUPA. Adherence to existing regulations would ensure compliance with safety standards related to the use and storage of hazardous materials, and the safety procedures mandated by applicable federal, State, and local laws and regulations, which would ensure that risks involving the routine transportation, use, storage, or disposal of hazardous materials or hazardous wastes would be cumulatively *less than significant*.

MITIGATION MEASURE(S)

None required.

Impact 3.9-8: Implementation of the proposed Project, in combination with other cumulative development, would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. (Less than Significant)

Future development sites within the City and vicinity of the Project site could create a significant hazard to the public or the environment through upset and accident conditions involving the release of hazardous

materials into the environment. Construction activities associated with project implementation and cumulative development projects could involve demolition, grading, excavation, and other ground-disturbing activities that could temporarily create a significant hazard to the public or the environment through release of hazardous materials. Future site-specific development would be reviewed at the project-level to determine whether any development sites are listed on a hazardous materials site. Any development activities that may occur on documented hazardous materials sites would be required to undergo remediation and cleanup under the supervision of the regulatory agencies, such as DTSC and the CVRWQCB. Therefore, the cumulative impact of creating a hazard to the public or environment through reasonably foreseeable accident would be *less than significant*.

MITIGATION MEASURE(S)

None required.

Impact 3.9-9: Implementation of the proposed Project, in combination with other cumulative development, could be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment. (Less than Significant)

Future development projects would be evaluated at the project-level to determine whether any development sites are listed on a hazardous materials site. Any development activities occurring on documented hazardous materials sites would be required to undergo remediation and cleanup under the supervision of federal, State, and local regulations, including the DTSC and the CVRWQCB, prior to construction. Therefore, the cumulative impact of locating development on hazardous materials sites would be *less than significant*.

MITIGATION MEASURE(S)

None required.

Impact 3.9-10: The proposed Project, in combination with other cumulative development, would not be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, resulting in a safety hazard or excessive noise for people residing or working in the Project site. (Less than Significant)

Future development projects would be evaluated at the project-level to determine if they are located within an airport land use plan or within two miles of a public or public use airport. Future projects located within the Airport Influence Area of the Travis AFB would be reviewed by the ALUC for consistency with applicable standards established in the Travis AFB Land Use Compatibility Plan on a project-by-project basis. Therefore, the cumulative impact of locating cumulative development in an airport land use plan area would be *less than significant*.

MITIGATION MEASURE(S)

None required.

Impact 3.9-11: Implementation of the proposed Project, in combination with other cumulative development, would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (Less than Significant)

Future development projects could impair implementation of or physically interfere with an adopted emergency response plan. Construction activities associated with project implementation and cumulative development projects could involve demolition, grading, excavation, and other ground-disturbing activities that could temporarily interfere with emergency response plans or emergency evacuation plans. Future development would be designed, constructed, and maintained in accordance with applicable standards, including vehicular access to ensure that adequate emergency access and evacuation would be maintained. Access for emergency vehicles would be required to be incorporated into project design. Construction activities that may temporarily restrict vehicular traffic would be required to implement appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. Future development projects would be required to comply with applicable City codes and regulations pertaining to emergency response and evacuation plans. Prior to construction, proposed site plans would be required to undergo review by the Fire Department to ensure that adequate emergency access would be maintained within the area. During operation of future projects, the City and/or County EOP would be implemented and emergency response and evacuation would occur dependent upon the emergency situation, consistent with the respective EOPs. Therefore, the cumulative impact to emergency response would be *less than significant*.

MITIGATION MEASURE(S)

None required.

Impact 3.9-12: Implementation of the proposed Project, in combination with other cumulative development, would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. (Less than Significant)

There are no areas designated as moderate, high, or very high FHSZs within the City. The area surrounding the City is relatively flat and predominantly agricultural or developed uses, and is not considered at a significant risk of wildfire. Future development projects within the City and vicinity of the Project site are not anticipated to exacerbate fire risks. Therefore, the cumulative impact of exposing future development to significant loss from wildland fires would be *less than significant*.

MITIGATION MEASURE(S)

None required.

This section describes the regulatory setting, regional hydrology and water quality impacts that are likely to result from project implementation, and includes measures to reduce potential impacts related to stormwater drainage, flooding and water quality.

Four comments were received during the NOP comment period in regard to hydrology and water quality. One comment was received by the Solano County Department of Resource Management related to groundwater quality and quantity; groundwater recharge; stormwater and drainage; and the consideration of an integrated “One Water” approach. The County recommends the following issues be evaluated:

- The project’s impact on groundwater supplies and drainage within the area, including the impact potential on the Dixon Limited Agricultural Service area adjacent to the Project site;
- Project-related impacts to groundwater supplies and the Groundwater Sustainability Plan, as well as any impact related to movement of contaminants;
- Project-related impacts to drainage and stormwater facilities, particularly downstream impacts and increased off-site flooding potential; and
- Water, wastewater, and drainage infrastructure needs with a regional and integrated “One Water” approach.

One comment was received by the Dixon Resource Conservation District (RCD) during the NOP comment period, along with two additional written comments filed after the close of the NOP comment period, related to drainage and flooding. Specifically, the RCD requests that potential impacts to all downstream facilities are fully evaluated and mitigated consistent with the terms in the 2004 Dixon Regional Watershed Joint Powers Authority (JPA) Agreement, and lists a number of concerns and recommendations.

One comment was received by the Central Valley Regional Water Quality Control Board (RWQCB). The comment provides information on the regulatory setting and permitting requirements potentially applicable to the project.

One comment was received by the California Department of Transportation (Caltrans). Caltrans requests the project applicant submit drainage plans and reports to the Office of Hydraulics to review and evaluate if there are any adverse impacts to the I-80 drainage system.

This section addresses the issues raised during the NOP comment period.

The analysis included in this section is based, in part, on statements, data, and figures provided by the following reference materials:

- City of Dixon General Plan 2040 (May 2021);
- City of Dixon General Plan 2040 Environmental Impact Report, Public Review Draft (July 2020); and
- Drainage Study for Dixon 257, prepared by Morton Pitalo and dated July 7, 2023.

3.10.1 ENVIRONMENTAL SETTING

REGIONAL HYDROLOGY

The Project site is located in the City of Dixon, within Solano County at the southern end of the Sacramento Valley, approximately 28 miles north of the Sacramento–San Joaquin River Delta. The Sacramento Valley is bordered by the Coast Ranges to the west and the foothills of the Sierra Nevada to the east. Water resources in this region include rivers, streams, sloughs, marshes, wetlands, channels, harbors, and underground aquifers. The topography is generally flat. The region north of the Delta is drained by the Sacramento River, which flows through the Suisun and San Pablo bays before emptying into San Francisco Bay and the Pacific Ocean.

Climate

As indicated in the General Plan EIR, the City of Dixon experiences a Mediterranean climate, with hot, arid summers and short, cold, wet winters. The average maximum temperature during the months of June and September is about 90 degrees Fahrenheit (°F), and average minimum temperatures drop to 37 to 40°F in winter. The mean annual precipitation is about 20 inches, with most of the rainfall occurring between October and May and the highest average rainfall totals occurring in February. Snowfall is uncommon, averaging zero inches per year.

Watersheds

A watershed is a region that is bound by a divide that drains to a common watercourse or body of water. Watersheds serve an important biological function, oftentimes supporting an abundance of aquatic and terrestrial wildlife including special status species and anadromous and native local fisheries. Watersheds provide conditions necessary for riparian habitat.

Watersheds are delineated by the United States Geological Survey (USGS) using a nationwide system based on surface hydrologic features.¹ These hydrologic units are classified into four levels (regions, subregions, accounting units, and cataloging units), with each unit being identified by a unique hydrologic unit code (HUC) based on its level within the hierarchical system. This means that boundaries are defined according to size and topography, with multiple sub-watersheds within larger watersheds. The USGS system divides the United States into regions (HUC-2), subregions (HUC-4), basins (HUC-6), subbasins (HUC-8), watersheds (HUC-10), and sub-watersheds (HUC-12). **Figure 3.10-1** shows the principal watersheds in the area. The Project site is located within the Tremont School sub-watershed (HUC-12) of the Cache Slough watershed (HUC-10) within the Lower Sacramento subbasin (HUC-8).

SURFACE WATER AND FLOOD CONTROL FACILITIES

The Project site consists of approximately 260 acres located on the eastern edge of the NEQSP, adjacent to Pedrick Road. The site is bounded by Pedrick Road with Solano County unincorporated

¹ United States Geological Survey (USGS), *Hydrologic Unit Maps: What are Hydrologic Units?*, <https://water.usgs.gov/GIS/huc.html>, accessed December 14, 2023.

Agricultural lands to the east, by Industrial designated lands to the north and south, and lands designated as Regional Commercial and Industrial to the west.

As indicated in the Dixon General Plan 2040, surface water resources in and near Dixon include vernal pools, irrigation and drainage canals, and local detention ponds. The Dixon Storm Drain Report, prepared in 1999, divided the City into eight watersheds, locally known as Basins A through H.² The Project site is located within Basin D.³ As described in the General Plan EIR, Basin D drains into the Tremont 3 Drain, an agricultural drainage channel operated and maintained by the RCD. The Tremont 3 Drain flows into the Reclamation District 2068's (RD2068) Main Canal at Midway Road, which flows into the RD2068 V-Drain, which in turn flows to the Hass Slough, located to the southeast of Dixon.

Drainage

Regional stormwater drainage is provided by several agencies, including the City, Dixon Resource Conservation District (RCD), Reclamation District 2068 (RD2068), and the Maine Prairie Water District. In 2004, these agencies established the Dixon Regional Watershed Joint Powers Authority (DRWJPA) to cooperatively seek resolution of several long-term, regional drainage concerns, including establishing discharge limits from the City into the agricultural DRCD drainage channels and identifying and preliminarily sizing the detention ponds needed to achieve the discharge limits. Regional coordination is ongoing, with work beginning to evaluate potential drainage solutions in the entire Tremont 3 Watershed.

A Drainage Study was prepared for the Project site; refer to Appendix M. The following discusses existing and proposed drainage as described in the Drainage Study.

Existing: Under existing conditions, the Project site drains predominantly in an east-southeast direction, away from I-80. Runoff is collected in roadside ditches adjacent to Pedrick Road on the east and Vaughn Road on the south and conveyed via ditches to a depressed area adjacent to the railroad tracks, east of the Project site. Flows are stored within the depressed area adjacent to the railroad tracks and ultimately released into the downstream Tremont 3 system.

In addition, flows from an offsite drainage area on the northwestern side of the I-80 contributes to the NEQSP. The offsite drainage area consists of approximately 2,700 acres of agricultural land tributary to a series of pipes and existing culverts that cross I-80. The flows are conveyed eastward by channel and overlay flow to Pedrick Road. An existing culvert crosses Pedrick Road at the southern boundary of the existing Campbell Soup Supply Company, to the east of the Project site. A channel conveys the flows from the depressed area to Pedrick Road and culvert crossing the railroad where an existing culvert conveys the flows to the Tremont 3 drainage system.

² City of Dixon, 2020. *General Plan 2040 Environmental Impact Report. Public Review Draft.* July, 2020. Page 3.9-39.

³ City of Dixon, 2020. *General Plan 2040 Environmental Impact Report. Public Review Draft.* July, 2020. Figure 3.9-2.

Proposed: Proposed drainage infrastructure is shown in detail in Figure 2-10 in Section 2, Project Description. As shown on Figure 2-10, on-site flows will be collected and conveyed through a storm drain system to a proposed retention basin located within the southeast portion of the site. The proposed retention basin would provide a minimum of 255 acre-feet of storage with a design percolation rate of four inches per day. The retention basin is proposed to be approximately 16 feet deep. The retention basin will not have an outfall, thereby removing 260 acres from the existing drainage shed area and retaining project-related flows onsite. Existing flows will be routed around the Project site via a pipe, drainage, and swale system with the same discharge location at the Pedrick Road culvert.

The proposed basin may be expanded in the future and converted from a retention basin to a City detention basin once the final citywide regional storm drainage and conveyance system solution for the NEQSP area is identified. The basin expansion would increase basin capacity to 360 acre feet of storage and would be utilized for the remaining undeveloped NEQSP properties west of Pedrick Road. This future basin would have an outfall to the existing culvert at Pedrick Road which is tributary to the Tremont 3 drainage facility. The underlying land use for the detention basin would be CAMU, per the current proposed amendment to the NEQSP. A drainage channel in the northwest corner of the Project site, between I-80 and Professional Drive, would further accommodate the bypass of offsite stormwater. It should be noted that regional drainage discussions for this area have been occurring for over 20 years and if a solution is agreed upon by the regional stakeholders and involves use of this basin, any future expansion or conversion to detention basin would be subject to a separate technical analysis and environmental review.

Surface Water Quality

Surface water quality is affected by point source and non-point source pollutants. Point source pollutants are those emitted at a specific point, such as a pipe, while non-point source pollutants are typically generated by surface runoff from diffuse sources, such as streets, paved areas, agricultural lands, or landscaped areas. Point source pollutants are controlled with pollutant discharge regulations or Waste Discharge Requirements (WDRs). Non-point source pollutants are more difficult to monitor and control although they are important contributors to surface water quality in urban areas.

Stormwater runoff pollutants vary based on land use, topography, the amount of impervious surface, and the amount and frequency of rainfall and irrigation practices. Runoff in developed areas typically contains oil, grease, and metals accumulated in streets, driveways, parking lots, and rooftops, as well as pesticides, herbicides, particulate matter, nutrients, animal waste, and other oxygen-demanding substances from agricultural and landscaped areas. Surface water pollution is also caused by erosion. Excessive and improperly managed grading, vegetation removal, and agricultural practices can lead to increased erosion of exposed earth and sedimentation of watercourses during rainy periods. The highest pollutant concentrations usually occur at the beginning of the wet season during the “first flush.”

Water quality in the City is governed by the Central Valley RWQCB, which sets water quality standards in the Basin Plan. The Basin Plan identifies beneficial uses for surface water and groundwater and establishes water quality objectives to attain those beneficial uses.

303(d) Impaired Water Bodies: Section 303(d) of the federal Clean Water Act requires the State to identify waters that do not meet water quality standards or objectives and thus, are considered "impaired." Once listed, Section 303(d) mandates prioritization and development of a Total Maximum Daily Load (TMDL). The TMDL is a tool that establishes the allowable loadings or other quantifiable parameters for a waterbody and thereby the basis for the States to establish water quality-based controls. The purpose of TMDLs is to ensure that beneficial uses are restored and that water quality objectives are achieved.

According to the California State Water Resources Control Board (SWRCB) 303(d) list, the Delta Waterways (northwestern portion) is listed as a Category 5 water body, meaning that it is a water segment where standards are not met and a TMDL is required, but not yet completed, for at least one of the pollutants being listed for the segment.⁴ Impairments for the northwestern portion of the Delta Waterways include the following: Chlorpyrifos, Dichlorodiphenyltrichloroethane (DDT), Diazinon, Electrical Conductivity, Group A Pesticides, Invasive Species, Mercury, and Toxicity. These constituents originate from a variety of sources, but generally include agricultural activities, resource extraction, urban runoff/storm sewers, and unknown sources.

GROUNDWATER RESOURCES

Groundwater Supply

The Solano Subbasin underlies the entire City, including the Project site, and is a part of the Sacramento Valley Groundwater Basin.⁵ The Sacramento Valley Groundwater Basin is located in north central California, covers an area of approximately 6,000 square miles, and is bounded on the east by the Sierra Nevada and Cascade Ranges, and on the west by the North Coast Range. The Solano Subbasin is bounded by Putah Creek on the north, the Sacramento River on the east, the North Mokelumne River on the southeast, the San Joaquin River on the south, the non-water bearing geologic units of the Great Valley Sequence on the northwest and the Suisun-Fairfield Valley Basin on the south side. The western hydrologic divide corresponds to the crest of the English Hills and Montezuma Hills and separates the Solano Subbasin from the Suisun-Fairfield Groundwater Basin.

The Solano Subbasin is not adjudicated,⁶ meaning the groundwater rights within the subbasin have not been determined by a court. The Subbasin has been designated by the DWR as a medium priority subbasin and as such, is required to submit and implement a Groundwater Sustainability Plan (GSP), pursuant to the Sustainable Groundwater Management Act (SGMA). Groundwater in the subbasin is managed by the Solano Subbasin Groundwater Sustainability Agency (GSA). The Solano Subbasin

⁴ California State Water Resources Control Board, 2022. *2020-2022 California Integrated Report For Clean Water Act Sections 303(d) and 305(b)*. March 2022. Appendix A: Proposed Final 2020-2022 303(d) List.

⁵ West Yost, 2022. *City of Dixon 2020 Urban Water Management Plan*. March 2022.

⁶ Luhdorff & Scalmanini Consulting Engineers, 2021. *Solano Subbasin Groundwater Sustainability Plan. Volume 1 – Main Report*. November 30, 2021.

GSA is part of the Solano Collaborative, which is made up of a total of five GSAs located in the Solano Subbasin and was formed to facilitate the development of the GSP. The Solano Subbasin GSP was submitted to the California Department of Water Resources on January 31, 2022.⁷

The City of Dixon has historically relied solely on groundwater from the Solano Subbasin to meet its water demands and plans to continue to use groundwater in the future to meet its demands.⁸ The City does not currently use or plan to use surface water or stormwater for beneficial reuse. According to the Solano Subbasin GSP, groundwater recharge within the Solano Subbasin occurs primarily through infiltration and deep percolation of precipitation falling directly on the landscape within the Subbasin and through applied water (e.g., irrigation), seepage from natural surface waterways, seepage from water conveyance systems (e.g., leaky canals, ditches, and pipes), and deeper subsurface recharge from adjacent and upland recharge source areas outside of the Subbasin.⁹ The GSP identifies areas with the highest recharge potential as those occurring along Putah Creek and in the Putah Creek alluvial fan in the northern portion of the Subbasin.

FLOODING AND INUNDATION

FEMA Floodplain Mapping

The Federal Emergency Management Agency (FEMA) maps flood potential across the United States. FEMA mapping provides important guidance in planning for flooding events and regulating development within identified flood hazard areas. FEMA's National Flood Insurance Program (NFIP) is intended to encourage State and local governments to adopt responsible floodplain management programs and flood measures. As part of the program, the NFIP defines floodplain and floodway boundaries that are shown on Flood Insurance Rate Maps (FIRMs). The Project site is shown on the FEMA FIRM Panel 06095C0200F.¹⁰ The project is located within Zone X, which is an area determined to be outside the 0.2 percent (500-year) annual chance floodplain. Therefore, the project is located within an area of minimal flood hazard; refer to **Figure 3.10-2**.

Dam Inundation

Any dam poses a potential risk of failure, which would threaten to inundate areas below the dam. Dam failure is generally a result of structural instability caused by improper design or construction, instability resulting from seismic shaking, or overtopping and erosion of the dam. As shown in **Figure 3.10-3**, the entire City, including the Project site, is located within the inundation area for the

⁷ Solano Groundwater Sustainability Agency, 2023. *Groundwater Sustainability Plan and Reports*. <https://www.solanogsp.com/>. Accessed December 22, 2023.

⁸ West Yost, 2022. *City of Dixon 2020 Urban Water Management Plan*. March 2022.

⁹ Luhdorff & Scalmanini Consulting Engineers, 2021. *Solano Subbasin Groundwater Sustainability Plan. Volume 1 – Main Report*. November 30, 2021. Page 3-5.

¹⁰ Federal Emergency Management Agency, 2012. *Flood Insurance Rate Map, Solano County, California, Map Number 06095C0200F*. August 2, 2012 (revised date).

Monticello Dam (Lake Berryessa).¹¹ The Monticello Dam is located approximately 16 miles west of the Project site, in Napa County.

Tsunami

A tsunami is a series of waves in a water body caused by the displacement of a large volume of water, generally in an ocean or a large lake due to earthquakes, volcanic eruptions, and other underwater explosions. The Project site is located approximately 60 miles inland of the Pacific Ocean and 37 miles from the San Pablo Bay.

3.10.2 REGULATORY SETTING

FEDERAL

Federal Clean Water Act

The Clean Water Act (CWA), initially passed in 1972, regulates the discharge of pollutants into watersheds throughout the nation. Section 402(p) of the CWA establishes a framework for regulating municipal and industrial stormwater discharges under the National Pollutant Discharge Elimination System (NPDES) Program. Section 402(p) requires that stormwater associated with industrial activity that discharges either directly to surface waters or indirectly through municipal separate storm sewers must be regulated by an NPDES permit.

The CWA establishes the basic structure for regulating the discharges of pollutants into the waters of the United States and gives the Environmental Protection Agency (EPA) the authority to implement pollution control programs. The statute's goal is to regulate all discharges into the nation's waters and to restore, maintain, and preserve the integrity of those waters. The CWA sets water quality standards for all contaminants in surface waters and mandates permits for wastewater and stormwater discharges.

The CWA also requires states to establish site-specific water quality standards for navigable bodies of water and regulates other activities that affect water quality, such as dredging and the filling of wetlands. The following CWA sections assist in ensuring water quality for the water of the United States:

- CWA Section 208 requires the use of best management practices (BMPs) to control the discharge of pollutants in stormwater during construction;
- CWA Section 303(d) requires the creation of a list of impaired water bodies by states, territories, and authorized tribes; evaluation of lawful activities that may impact impaired water bodies; and preparation of plans to improve the quality of these water bodies. CWA Section 303(d) also establishes Total Maximum Daily Loads (TMDLs), which is the maximum amount of a pollutant that a water body can receive and still safely meet water quality standard; and

¹¹ City of Dixon, 2020. *General Plan 2040 Environmental Impact Report. Public Review Draft*. July, 2020. Page 3.10-14.

- CWA Section 404 authorizes the U.S. Army Corps of Engineers to require permits that will discharge dredge or fill materials into waters in the United States, including wetlands.

In California, the EPA has designated the State Water Resources Control Board (SWRCB) and its nine RWQCBs with the authority to identify beneficial uses and adopt applicable water quality objectives.

The SWRCB is responsible for implementing the CWA and does so through issuing NPDES permits to cities and counties through regional water quality control boards. Federal regulations allow two permitting options for storm water discharges (individual permits and general permits).

National Pollutant Discharge Elimination System (NPDES)

NPDES permits are required for discharges to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, oceans, dry stream beds, wetlands, and storm sewers that are tributary to any surface water body. NPDES permits are issued under the Federal CWA, Title IV, Permits and Licenses, Section 402 (33 USC 466 *et seq.*).

The RWQCB issues these permits in lieu of direct issuance by the EPA, subject to review and approval by the EPA Regional Administrator (EPA Region 9). The terms of these NPDES permits implement pertinent provisions of the CWA and implementing regulations, including pre-treatment, sludge management, effluent limitations for specific industries, and anti-degradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the CWA's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the RWQCB are also Waste Discharge Requirements issued under the authority of the CWA.

These NPDES permits regulate discharges from publicly owned treatment works, industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges. NPDES permits are issued for five years or less, and are therefore to be updated regularly. Individual projects in the City that disturb more than one acre would be required to obtain NPDES coverage under the California General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit). The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) describing BMPs the discharger would use to prevent and retain storm water runoff. The SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a waterbody listed on the 303(d) list for sediment.

A Phase II Small Municipal Separate Storm Sewer (MS4) General Permit was adopted by the SWRCB on February 5, 2013 (Water Quality Order No. 2013-0001-DWQ, NPDES NO. CAS000004, as amended).

Federal Emergency Management Agency

FEMA operates the National Flood Insurance Program (NFIP). Participants in the NFIP must satisfy certain mandated floodplain management criteria. The National Flood Insurance Act of 1968 has

adopted as a desired level of protection, an expectation that developments should be protected from floodwater damage of the Intermediate Regional Flood (IRF). The IRF is defined as a flood that has an average frequency of occurrence on the order of once in 100 years, although such a flood may occur in any given year. Communities are occasionally audited by the California Department of Water Resources to ensure the proper implementation of FEMA floodplain management regulations.

National Flood Insurance Program

Per the National Flood Insurance Act of 1968, the National Flood Insurance Program (NFIP) has three fundamental purposes: Better indemnify individuals for flood losses through insurance; Reduce future flood damages through State and community floodplain management regulations; and Reduce Federal expenditures for disaster assistance and flood control. While the Act provided for subsidized flood insurance for existing structures, the provision of flood insurance by FEMA became contingent on the adoption of floodplain regulations at the local level.

Flood Disaster Protection Act

The Flood Disaster Protection Act (FDPA) of 1973 was a response to the shortcomings of the NFIP, which were experienced during the flood season of 1972. The FDPA prohibited federal assistance, including acquisition, construction, and financial assistance, within delineated floodplains in non-participating NFIP communities. Furthermore, all federal agencies and/or federally insured and federally regulated lenders must require flood insurance for all acquisitions or developments in designated Special Flood Hazard Areas (SFHAs) in communities that participate in the NFIP.

Improvements, construction, and developments within SFHAs are generally subject to the following standards:

- All new construction and substantial improvements of residential buildings must have the lowest floor (including basement) elevated to or above the base flood elevation (BFE);
- All new construction and substantial improvements of non-residential buildings must either have the lowest floor (including basement) elevated to or above the BFE or dry-floodproofed to the BFE;
- Buildings can be elevated to or above the BFE using fill, or they can be elevated on extended foundation walls or other enclosure walls, on piles, or on columns; and
- Extended foundation or other enclosure walls must be designed and constructed to withstand hydrostatic pressure and be constructed with flood-resistant materials and contain openings that will permit the automatic entry and exit of floodwaters. Any enclosed area below the BFE can only be used for the parking of vehicles, building access, or storage.

Reclamation Safety of Dams Act, National Dam Safety Act, and Federal Guidelines for Dam Safety

The Bureau of Reclamation's Dam Safety Program was officially implemented in 1978 with passage of the Reclamation Safety of Dams Act. The Act authorizes the Secretary of the Interior to construct, restore, operate, and maintain new or modified features at existing federal Reclamation dams for

safety purposes. The program focuses on evaluating and implementing actions to resolve safety concerns at Reclamation dams. The National Dam Safety Act, reauthorized in 2014, aims to reduce risks to life and property arising from dam failure. The US Secretary of the Army is required to maintain a database of all dams in the United States, including inspection details and jurisdiction, and the Act establishes funding and authority for safety oversight and staff safety training. The Interagency Committee on Dam Safety (ICODS) prepared and approved federal guidelines for dam safety risk management and emergency action planning, which requires federally-owned dam operators to conduct risk assessments and risk reduction measures.

STATE

California Department of Health Services

The Department of Health Services, Division of Drinking Water and Environmental Management, oversees the Drinking Water Program. The Drinking Water Program regulates public water systems and certifies drinking water treatment and distribution operators. It provides support for small water systems and for improving their technical, managerial, and financial capacity. It provides subsidized funding for water system improvements under the State Revolving Fund and Proposition 50 programs. The Drinking Water Program also oversees water recycling projects, permits water treatment devices, supports and promotes water system security, and oversees the Drinking Water Treatment and Research Fund for methyl tert-butyl ether (MTBE) and other oxygenates.

California Water Code

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the SWRCB and each of the RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the Federal CWA. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites, and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a Water Quality Control Plan (Basin Plan) for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

Assembly Bill 70

Assembly Bill (AB) 70 provides that a city or county may be required to contribute its fair and reasonable share of the property damage caused by a flood to the extent that it has increased the

State's exposure to liability for property damage by unreasonably approving, as defined, new development in a previously undeveloped area, as defined, that is protected by a State flood control project, unless the city or county meets specified requirements.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) established a framework for sustainable, local groundwater management. SGMA requires groundwater-dependent regions to halt overdraft and bring basins into balanced levels of pumping and recharge. With passage of the SGMA, the DWR launched the Sustainable Groundwater Management Program to implement the law and provide ongoing support to local agencies around the State. The SGMA:

- Establishes a definition of "sustainable groundwater management;"
- Requires that a Groundwater Sustainability Plan be adopted for the most important groundwater basins in California;
- Establishes a timetable for adoption of Groundwater Sustainability Plans;
- Empowers local agencies to manage basins sustainably;
- Establishes basic requirements for Groundwater Sustainability Plans; and
- Provides for a limited State role.

REGIONAL AND LOCAL

Water Quality Control Plan for the Central Valley Region

The Water Quality Control Plan for the Central Valley Region (Basin Plan) includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and implementation measures for the Sacramento and San Joaquin River Basins. The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term "water quality standards," as used in the federal CWA, includes both the beneficial uses of specific water bodies and the levels of quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain the water quality standards.

The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region's ground and surface water. Permits are issued under a number of programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. Water quality problems in the region are listed in the Basin Plan, along with the causes, where known. For water bodies with quality below the levels necessary to allow all the beneficial uses of the water to be met, plans for improving water quality are included. The Basin Plan reflects, incorporates, and implements applicable portions of a number of national and statewide water quality plans and policies, including the California Water Code and the Clean Water Act.

Solano Subbasin Groundwater Sustainability Plan

As a designated medium priority subbasin, local agencies are required to submit and implement a Groundwater Sustainability Plan (GSP), pursuant to the Sustainable Groundwater Management Act

(SGMA). The Solano Subbasin GSP guides sustainable management of the Solano Subbasin and achieves compliance with SGMA. It provides a detailed roadmap to achieve the sustainability goal and avoid significant and unreasonable adverse effects on six sustainability indicators, including: chronic lowering of groundwater levels; reduction of groundwater storage; seawater intrusion; water quality degradation; land subsidence; and depletion of interconnected surface water.

Solano County Water Agency

The Solano County Water Agency (SCWA) is a Special District formed in 1951 and represents all the local agencies involved in water and flood management.¹² SCWA is a wholesale water supply agency providing untreated water to cities and agricultural districts in Solano County from the Federal Solano Project and the North Bay Aqueduct of the Water Project. In addition, the agency performs flood management as well as habitat conservation activities. The SCWA boundaries include the entire County, as well as the University of California at Davis and approximately 2,800 acres of RD2068 in Yolo County.

Dixon Regional Watershed Joint Powers Authority (DRWJPA)

The DRWJPA was formed in 2004 and is comprised of the City of Dixon, DRCD, Maine Prairie Water District, and RD2068. The purpose of the DRWJPA is to improve mechanisms to fund, construct, own and operate new or upgraded drainage facilities that provide drainage to two or more of the participating entities.

Dixon Watershed Management Plan (DWMP)

To resolve disputes between Agricultural Limited Industrial Service Area development just east of the City, SCWA prepared the Dixon Watershed Management Plan (DWMP) in 2001. This plan delineated several projects for the purposes of mitigating the impacts of urban growth on the downstream stakeholders. The DWMP identified optional approaches to resolve disputes between the upstream and downstream property owners, allow for the development of the NEQSP area, and reduce the flooding of the downstream farms.

City of Dixon General Plan

The Dixon General Plan contains the following goals and policies that are relevant to hydrology and water quality:

NATURAL ENVIRONMENT

GOAL NE-1. Preserve, protect, and enhance natural resources, habitats, and watersheds in Dixon and the surrounding area, promoting responsible management practices.

¹² Solano County Water Agency, 2023. *About Us*. <https://www.scwa2.com/about-us/>. Accessed: December 29, 2023.

Policy NE-1.7 Recognize the Sacramento Valley - Solano Groundwater Subbasin as a critical resource for Dixon and proactively promote sustainable groundwater management practices.

Policy NE-1.8 Continue to work with the Solano Subbasin Groundwater Sustainability Agency Collaborative to develop and implement strategies for the long-term health and viability of the Solano Groundwater Subbasin.

Policy NE-1.9 Facilitate groundwater recharge in Dixon by encouraging development projects to use Low-Impact Development (LID) practices such as bioretention, porous paving, and green roofs, and by encouraging private property owners to design or retrofit landscaped or impervious areas to better capture storm water runoff.

Policy NE-1.10 Work with the Dixon Resource Conservation District to ensure that drainage ditches which discharge directly to or are located within open space lands are regularly repaired and maintained.

GOAL NE-2. Use energy and water wisely and promote reduced consumption.

Policy NE-2.5 Encourage new development to optimize water efficiency measures and conservation practices in their design and construction.

Policy NE-2.6 Promote the use of water-efficient landscaping on existing private property.

Policy NE-2.7 Conserve water through the provision of water-efficient infrastructure, drought tolerant plantings, and greywater usage to support public parks and landscaped areas.

Policy NE-2.8 Conserve water through the planting and maintenance of trees, which will provide for the capture of precipitation and runoff to recharge groundwater, in addition to providing shading for other landscaping to reduce irrigation requirements. Ensure that any 'community greening' projects utilize water-efficient landscape.

Policy NE-2.9 Collaborate with the Solano County Water Agency to implement water conservation measures and ensure sustainable water supplies.

GOAL NE-4. Protect life and property from natural and human-made hazards and provide quick, effective response to disasters and emergencies.

Policy NE-4.5 Collaborate with the Bureau of Reclamation, Solano Irrigation District, Solano County Water Agency, and other responsible agencies to ensure the seismic and geologic hazard safety of the Monticello Dam

Policy NE-4.6 Ensure that new development is sited, constructed, and operated to minimize impacts and risks of flood hazards to public health, safety, and welfare.

Policy NE-4.7 Require new development to adhere to the Floodplain Management Ordinance and to employ floodproofing construction techniques to the extent feasible. NE-4.8

3.10 HYDROLOGY AND WATER QUALITY

Prohibit new critical and essential public services and facilities from being located in the floodplain, as shown on Figure NE-7. Retrofit existing facilities to be flood resilient and remain operational in the event of a flood.

Policy NE-4.8 Coordinate with local and regional flood control agencies, such as the Dixon and Solano Resource Conservation Districts, to reduce regional flood hazards and preserve the integrity of flood control infrastructure.

Policy NE-4.9 Promote public awareness of flood hazards and provide guidance on how to prepare for a flood.

GOAL NE-5. Minimize air, soil, noise, and water pollution as well as community exposure to hazardous conditions.

Policy NE-5.5 Encourage development to minimize grading related to the topography and natural features in order to limit soil erosion.

Policy NE-5.6 Require construction projects that disturb 10,000 square feet of ground cover revegetate graded areas with native or locally-appropriate vegetation to restore biological diversity and minimize erosion and soil instability.

Policy NE-5.7 Coordinate with Yolo and Solano counties, the Resource Conservation District, and the Natural Resources Conservation Service in implementing programs to reduce soil erosion by wind and water and prevent soil contamination.

Policy NE-5.8 Coordinate with the Dixon Resource Conservation District, California Water Service, Solano Subbasin Groundwater Sustainability Agency, Solano County and others to promote, protect, and improve water quality in Dixon.

Policy NE-5.9 Protect surface water and groundwater resources from contamination from point (single location) and non-point (many diffuse locations) sources by pursuing strategies to minimize the pollutant and sediment levels entering the hydrological system through stormwater, agricultural, and other urban runoff.

Policy NE-5.10 Work with the Solano County Agricultural Commissioner and other responsible agencies to identify and enforce mechanisms to reduce pesticide use and control residual pesticides and pesticide runoff to prevent significant risk to water quality, vegetation, wildlife, and humans.

MOBILITY

Policy M-4.8. Require new or redesigned parking lots to optimize pedestrian and bicycle safety and provide green infrastructure for aesthetic and stormwater management purposes.

PUBLIC SERVICES AND FACILITIES

- Policy PSF-2.3** Improve the reliability of the City's water system to meet future demand, including through the construction of additional wells and the identification of potential surface water supply sources or use of reclaimed water from the City Wastewater Treatment Facility.
- Policy PSF-2.4** Prioritize improvements to the City's water system to ensure the provision of safe, clean water.
- Policy PSF-2.7** Operate, maintain and update the City-owned storm sewer system as needed to serve existing and future development.
- Policy PSF-2.8** Coordinate with the Dixon Regional Watershed Joint Powers Agency, the Solano County Water Agency, the Solano Irrigation District and other responsible agencies to address storm drainage and flood control on a sub-regional basis in order to optimize the use of existing and planned conveyance facilities.
- Policy PSF-2.9** Require through development agreements that new development provide necessary storm drainage improvements and ensure that upstream stormwater generators fully address stormwater needs on their property.
- Policy PSF-2.10** Ensure through the development review process that adequate public utilities and services are available to serve new development and ensure that new development pay its fair share of the costs of constructing new public utilities, providing public services, and upgrading existing facilities as needed to accommodate it.
- Policy PSF-2.11** Encourage project designs that minimize drainage concentrations, minimize impervious coverage, utilize pervious paving materials, utilize low impact development (LID) strategies, and utilize Best Management Practices (BMPs) to reduce stormwater runoff.

City of Dixon Northeast Quadrant Specific Plan (NEQSP)

The NEQSP contains the following policies that are relevant to hydrology and water quality:

RESOURCE MANAGEMENT ELEMENT

Water Quality

1. Paved parking areas should be designed to provide the minimum amount of paving area necessary to meet required parking standards. Permeable paving materials may be considered where feasible.
2. Best Management Practices (BMP) such as sediment traps, evaporation basins, flow reduction devices, and other methods to treat pollutants draining from parking areas and streets shall be installed in the storm drain system for individual projects within the plan area in accordance with City standards.

3. Plan proposed detention ponds shall incorporate similar BMP devices and methods in accordance with City standards.
4. Design of storm detention facilities should be consistent with the City's retention/detention system design standards. In general, allowable storage capacity shall be determined by the city engineer. Low growing ground cover is recommended around the periphery of the pond. Other aesthetic enhancements may be allowed with approval from the city engineer.

PUBLIC FACILITIES AND SERVICES ELEMENT

Drainage

1. Urban run-off shall be directed to the proposed city-wide drainage conveyances and shall meet standards for peak run-off period flows. However, each application for a PD, or equivalent mechanism pursuant to this Specific Plan will be required to demonstrate the on-site capacity to assure that the post-project runoff is no greater than the pre-project condition unless a comprehensive storm drainage system is available to serve the proposed Project. Available means that the system is at least conditionally approved by the City, and has an approved funding mechanism in which the proposed Project is a participant or is made a participant as a condition of approval of the PD or another equivalent mechanism.
2. The Dixon Engineering Department shall review all drainage facilities prior to improvement and approval of individual project plans.
3. Overall stormwater volumes generated from the plan area will be mitigated through plan area participation in a regional drainage project, funded in part by methods as determined by the City.

Dixon Municipal Code

Dixon Municipal Code Chapter 9.04, *Flood Damage Prevention*, contains the City's floodplain management ordinance, which addresses regulations and standards in order to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions within the City of Dixon.

The City's grading control ordinance (Chapter 16.04, *Grading Control*) includes standards and regulations designed to establish uniform engineering standards and procedures for grading, excavation and earthwork construction and to avoid the disruption of natural or City-authorized drainage flows caused by the activities of clearing and grubbing, grading, filling and excavation of land.

The City's storm water control ordinance (Chapter 16.06, *Storm Water Control*) addresses City requirements for stormwater management and discharge control, including controlling non-stormwater discharges to the stormwater conveyance system, eliminating discharges to the stormwater conveyance system from spills, dumping or disposal of materials other than stormwater, reducing pollutants in urban stormwater discharges to the maximum extent practicable.

3.10.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact related to hydrology and water quality if it would:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
 - result in substantial erosion or siltation on- or off-site;
 - substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
 - create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
 - impede or redirect flood flows;
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; and/or
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

METHODOLOGY AND ASSUMPTIONS

This analysis focuses on issues related to surface hydrology, flood hazards, groundwater supply, and surface and groundwater quality.

IMPACTS AND MITIGATION

Impact 3.10-1: Implementation of the proposed Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. (Less than Significant)

Short-Term Construction Water Quality Impacts: Development associated with the proposed Project would involve grading, excavation, removal of vegetation cover, and activities associated with construction activities that could temporarily increase runoff, erosion, and sedimentation. Construction activities also could result in soil compaction and wind erosion impacts that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas.

Each phase of project construction disturbing one acre or more of soil would be required to obtain coverage under the Construction General Permit. The permit requires development and implementation of a SWPPP and monitoring plan, which must include erosion-control and sediment-control BMPs that would meet or exceed measures required by the Construction General Permit to control stormwater quality degradation due to potential construction-related pollutants. Further, project construction would be required to implement construction site control BMPs in compliance with the City's NPDES Permit (MS4). Project construction activities would also be subject to the City's grading control ordinance and storm water control ordinance, which requires compliance with minimum BMPs to reduce the discharge of pollutants. Therefore, the proposed Project would not violate any water quality standards or waste discharge requirements, nor would it otherwise substantially degrade surface water or groundwater quality. Implementation of BMPs during construction activities and compliance with the existing regulatory requirements would reduce potential impacts in this regard to a level that is *less than significant*.

Long-Term Operational Water Quality Impacts: The long-term operations of the proposed Project could result in impacts to surface water quality from urban stormwater runoff. The proposed Project would result in new impervious areas associated with streets, driveways, parking lots, and buildings. Normal activities in these developed areas include the use of various automotive petroleum products and household hazardous materials, including cleansers, paints, fertilizers, and pesticides. Within urban areas, these pollutants are generally referred to as non-point source pollutants. While non-point source pollutants from the Project site already exist due to road and agricultural runoff, the proposed mixed-use development project could increase potential pollutants relative to existing conditions. The pollutant levels would vary based on factors such as time between storm events, volume of storm event, type of land uses, and density of people. In addition, uses associated with the proposed DOC area may involve the use, generation, storage, or transport of larger amounts of hazardous materials with the potential for accidental release.

The proposed Project would be required to comply with the MS4 Permit (Order No. 2013-0001-DWQ, as amended), which requires permittees to regulate post-construction development. Permittees must implement a post-construction stormwater management program, as specified in Section E.12 of the Phase II Small MS4 General Permit. In order to meet the NPDES permit guidelines and requirements, permanent storm water control measures would be incorporated into the project in order to mitigate the impacts of pollutants in storm water runoff from the proposed Project. The proposed Project would incorporate site design measures, source control measures, and treatment control measures. As shown on Figure 2-10 in Section 2, onsite flows will be collected and conveyed through a storm drain system to the retention basin. The proposed retention basin has a volume of 255 acre-feet and is located near the south end of the Campus Project site. The retention basin would serve the Project site. If a future city-wide storm drainage solution is pursued, the basin expansion would increase basin capacity to 360 acre feet of storage and would be utilized for the remaining undeveloped NEQSP properties west of Pedrick Road.

A guiding stormwater management principle for project should be that it does not result in new impacts to properties downstream or upstream. Potential impacts include considerations of both

stormwater quantity and quality. With regard to stormwater quality, the project would be designed to conform with current City of Dixon standard requirements, as discussed below. For water quantity, the objective of the preliminary analysis is to identify the basic post-project storage volumes needed on-site in order to limit post-project peak discharges and associated peak water surface elevations (WSEs) to estimated existing levels in the Covell Drain on its approach to the SR 113 box culvert.

Stormwater from the proposed Project buildings and site would flow into proposed greenway swales, perimeter drainage channel, and onsite retention basin. In order to meet the guidelines and requirements set forth in the "Phase II Small MS4 General Permit, 2013-0001-DWQ," dated February 5, 2013, adopted by the City of Dixon, permanent storm water control measures are proposed to be incorporated into the project in order to mitigate the impacts of pollutants in storm water runoff from the proposed Project.

Implementation of the above-referenced water quality control measures would ensure project compliance with the guidelines and requirements set forth in the "Phase II Small MS4 General Permit, 2013-0001-DWQ," dated February 5, 2013, adopted by the City of Dixon. Implementation of the following mitigation measure would reduce potential surface water quality impacts post-construction to a *less than significant* level. No additional mitigation is required.

Water Quality Impacts from Discharges to 303(d) Listed Water Bodies: Section 303(d) of the federal Clean Water Act requires States to identify waters that do not meet water quality standards or objectives and thus, are considered "impaired." However, the project area does not directly discharge to any 303(d) listed water bodies. Therefore, the proposed Project would not be expected to further impair any 303(d)-listed water body.

Development and implementation of a SWPPP will utilize BMPs and technology to reduce erosion and sediments to meet water quality standards during construction. Further, the project design includes the use of stormwater quality features that will minimize non-point source pollution and long-term urban runoff impacts. These would include site design measures, source control measures, and low impact development. These LID measures would likely include both volume-based BMPs (i.e., bioretention, infiltration features, pervious pavement, etc.) and flow-based BMPs (i.e., vegetated swales, stormwater planter, etc.). The use of these features would be dependent upon the location and setting within the Project site. These treatment measures would be designed in accordance with the City of Dixon Storm Water Quality Control Standards. Sizing and configuration of these treatment measures would be determined with the future development of the tentative map and improvement plans for the project.

These stormwater quality features are intended to treat runoff close to the source. Through implementation of the Drainage Plan, water quality would be protected, and the impact would be *less than significant*.

MITIGATION MEASURE(S)

None Required.

Impact 3.10-2: Implementation of the proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. (Less than Significant)

Groundwater Supplies: The Project site area is located within the City's water service area. According to the City of Dixon 2020 Urban Water Management Plan (UWMP), the City relies solely on groundwater from the Solano Subbasin to meet its water demands. As indicated in Section 3.16, Utilities and Service Systems, pursuant to Water Code section 10910(c)(4), and based on the technical analyses described in the Dixon 257 Water Study (Appendix I), the total projected water supplies determined to be available for the proposed Project during normal, single-dry, and multiple-dry water years during a 20 year projection will meet the projected water demand associated with the proposed Project, in addition to existing and planned future uses. Therefore, the City is able to serve the proposed Project in addition to existing and planned developments with the existing and planned future water supplies. Thus, the Project would not substantially decrease groundwater supplies that would impede sustainable groundwater management of the basin; refer to Section 3.16, Utilities and Service Systems, regarding water supplies. As such, implementation of the proposed Project would result in a *less than significant* impact relative to water supplies.

Groundwater Recharge: The proposed Project would result in new impervious surfaces within the Project site with the potential to reduce rainwater infiltration and groundwater recharge to the Solano Subbasin. As indicated in the Solano Subbasin GSP, groundwater recharge within the Subbasin occurs primarily through infiltration and deep percolation of precipitation falling directly on the landscape within the Subbasin and through applied water (e.g., irrigation), seepage from natural surface waterways, seepage from water conveyance systems (e.g., leaky canals, ditches, and pipes), and deeper subsurface recharge from adjacent and upland recharge source areas outside of the Subbasin.¹³ The GSP identifies areas with the highest recharge potential as those occurring along Putah Creek and in the Putah Creek alluvial fan in the northern portion of the Subbasin. Additionally, the GSP identifies large portions of the Project site as having a higher deep percolation rating,¹⁴ meaning that there is high recharge potential based on site soil characteristics.

The new impervious surfaces (e.g., pavement, concrete, and structures) that would be built on the Project site could reduce groundwater infiltration capacity compared to the existing conditions. However, the proposed Project includes pervious areas such as landscaping and would implement LID BMPs that would provide opportunities for on-site infiltration and improved water quality. On-site flows would be conveyed to the proposed retention basin, which would allow for infiltration at a similar rate as the Project site already infiltrates.

¹³ Luhdorff & Scalmanini Consulting Engineers, 2021. *Solano Subbasin Groundwater Sustainability Plan. Volume 1 – Main Report*. November 30, 2021. Page 3-5.

¹⁴ Luhdorff & Scalmanini Consulting Engineers, 2021. *Solano Subbasin Groundwater Sustainability Plan. Volume 1 – Main Report*. November 30, 2021. Figure 3-8.

Therefore, potential impacts to groundwater recharge such that the project may impede sustainable groundwater management of the basin are not anticipated. As such, implementation of the proposed Project would have a *less than significant* impact relative to groundwater recharge.

MITIGATION MEASURE(S)

None Required.

Impact 3.10-3: Implementation of the proposed Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows. (Less than Significant)

The Project site is located within the Lower Putah Creek Hydrological Area. The Lower Putah Creek Hydrological Area is approximately 225,301 acres and is bound by Putah Creek to the south and Cache Creek to the north. The headwaters of the watershed begin just west of Winters, near Lake Berryessa, and extend to the east, approximately 25 miles, to the Sacramento River. Within the Putah Creek Hydrological Area, there are four principal watersheds, which total 198 square miles. The Project site is located within the Covell Drain watershed. The Covell Drain watershed includes the areas located in the central and north portions of the City, bounded by Putah Creek to the south, Dry Slough and Willow Slough bypass to the north, and the East Dixon watershed to the east.

The development of the proposed Project, when complete, would result in new impervious surfaces and thus could result in an incremental reduction in the amount of natural soil surfaces available for the infiltration of rainfall and runoff, thereby generating additional runoff during storm events. Additional runoff could contribute to the flood potential of natural stream channels or contribute runoff that could exceed the capacity of the City's drainage system.

If the proposed Project is developed, the on-site impervious area would increase, leading to faster and increased levels of runoff. However, the increased rate of runoff would be attenuated using new on-site facilities, including bio-retention areas spread throughout the parks and landscaped areas on the Project site. In general, runoff from the Project site would be routed through a network of proposed bio-treatment basins, proposed storm drain systems, and the proposed retention basin to the adjacent existing connection points.

In addition to the water quality treatment measures, the project proposes to handle the expected increase in the site's post-project peak discharge relative to pre-project conditions, resulting in no net increase of peak runoff.

The Project is proposing 13.5 acres of open space/landscaping around the perimeter of and throughout the Project site. The resulting 100-year peak discharge from the proposed Project was estimated at 53.2 cubic feet per second (cfs), which is equal to existing conditions.

Onsite flows will be collected and conveyed through a storm drain system to the retention basin.

The proposed retention basin has a volume of 255 acre-feet and is located near the south end of the Campus Project site. The retention basin would serve the Project site. If a future city-wide storm drainage solution is pursued, the basin expansion would increase basin capacity to 360 acre feet of storage and would be utilized for the remaining undeveloped NEQSP properties west of Pedrick Road. Based on a preliminary long term infiltration rate of 4 inches per day, the required retention basin storage is approximately 255 acre-feet. The final design of the retention basin will require additional geotechnical investigations to determine the long-term information rate. The retention basin will hold the runoff without a discharge to the DRCD facilities.

In order to meet the guidelines and requirements set forth in the “Phase II Small MS4 General Permit, 2013-0001-DWQ,” dated February 5, 2013, adopted by the City of Dixon, permanent storm water control measures would be incorporated into the project in order to mitigate the impacts of pollutants in storm water runoff from the proposed Project. The proposed Project would incorporate site design measures, source control measures, and treatment control measures consisting of bio-treatment basins dispersed throughout the site, as described under Impact 3.10-2 (above). At final design, an Operation and Maintenance plan would be developed specifying the inspection frequencies, maintenance activities, and record keeping required to maintain the proposed permanent stormwater control measures. Regular inspection and maintenance would be required for landscaped areas, irrigation systems, bio-treatment areas, and storm drain systems on-site.

The proposed Project would not substantially alter the existing drainage pattern of the site or area, in a manner that would result in substantial erosion or siltation, result in flooding, or exceed the capacity of the existing or planned stormwater drainage systems. Therefore, this is a *less than significant* impact.

MITIGATION MEASURE(S)

None Required.

Impact 3.10-4: Implementation of the proposed Project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones. (Less than Significant)

The Project site is not located within a FEMA designated flood hazard zone. As shown in Figure 3.10-2, the entire site is located within an area of minimal flood hazard. However, the entire City of Dixon, including the Project site, is located such that a catastrophic failure of Monticello Dam at Lake Berryessa could cause flooding. The federally-owned Monticello Dam is under the oversight of the Bureau of Reclamation, which regularly monitors and inspects the dam to ensure the facilities do

not present unreasonable risks to the public, property, or the environment. The proposed Project would not result in actions that could result in a higher likelihood of dam failure at Monticello Dam. There will always be a remote chance of dam failure that results in flooding of the City of Dixon, including the Project site. However, given the regulations provided in the Safety of Dams Act, and the ongoing monitoring performed by the Bureau of Reclamation, the risk of loss, injury, or death to people or structures from dam failure is considered *less than significant*.

Due to the distance from the San Francisco Bay and associated water bodies, the Project site is too far away from the nearest ocean to have any meaningful tsunami risk. A seiche, a standing wave in an enclosed or partially enclosed body of water, would not be a threat to the Project site as there are no large bodies of water nearby that present substantial risk to the proposed Project. As a result, tsunamis and seiches do not pose hazards due to the site's inland location and lack of nearby bodies of standing water.

Compliance with existing regulations would ensure that implementation of the proposed Project would have a *less than significant* impact associated with the release of pollutants due to project inundation.

MITIGATION MEASURE(S)

None Required.

Impact 3.10-5: Implementation of the proposed Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. (Less than Significant)

As described above, the local water quality control plan (Basin Plan) is maintained by the Central Valley RWQCB. The Basin Plan specifies the State's water quality standards (i.e., beneficial uses, water quality objectives, and antidegradation policy) and serves as the basis for the RWQCB's regulatory programs. When permittees and projects comply with the provisions of applicable NPDES permits and water quality permitting, they are consistent with the Basin Plan. Through compliance and implementation of existing regulations, implementation of the proposed Project would not conflict with or obstruct a water quality control plan. Therefore, impacts in this regard would be *less than significant*.

As described above, the Solano Subbasin was designated a medium priority basin. In compliance with SGMA, the GSA Collaborative developed a GSP and submits an annual report to the DWR detailing groundwater conditions for the Subbasin and GSP implementation status for the prior year. The Solano Subbasin GSP guides sustainable management of the Subbasin and achieves compliance with SGMA. The proposed Project would be subject to compliance with the GSP. Therefore, the project would not conflict with implementation of a sustainable groundwater management plan and impacts in this regard would be *less than significant*.

MITIGATION MEASURE(S)

None Required.

CUMULATIVE IMPACTS

Related projects in the City may have the potential to interact with the proposed Project to the extent that a significant cumulative effect relative to hazards and hazardous materials may occur. The geographic setting for hazards and hazardous materials are typically localized and considers development within the City, as well as development within the vicinity of the Project site.

Impact 3.10-6: Implementation of the proposed Project, in combination with other cumulative development, would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. (Less than Significant)

Cumulative development would increase the amount of impervious surfaces in the city limits, which could affect stormwater runoff water quality. Individual projects would be required to provide stormwater collection and discharge facilities such that water quality is not adversely affected. Future facilities and projects would be subject to the State Water Resources Control Board Requirements (SWRCB), City of Dixon regulations; Phase II, National Pollutant Discharge Elimination System (NPDES) Permit Requirements; NPDES-MS4 Permit Requirements; and LID Guidelines.

Stormwater quality standards imposed and monitored by the Environmental Protection Agency (EPA) and the SWRCB through the NPDES permit require treatment of stormwater runoff prior to its release into drainage features. Therefore, the cumulative impact to stormwater systems would be *less than significant*.

MITIGATION MEASURE(S)

None Required.

Impact 3.10-7: Implementation of the proposed Project, in combination with other cumulative development, would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. (Less than Significant)

The City of Dixon has historically relied solely on groundwater from the Solano Subbasin to meet its water demands and plans to continue to use groundwater in the future to meet its demands.¹⁵ The City does not currently use or plan to use surface water or stormwater for beneficial reuse. According to the Solano Subbasin GSP, groundwater recharge within the Solano Subbasin occurs primarily through infiltration and deep percolation of precipitation falling directly on the landscape within the Subbasin and through applied water (e.g., irrigation), seepage from natural surface waterways, seepage from water conveyance systems (e.g., leaky canals, ditches, and pipes), and deeper subsurface recharge from adjacent and upland recharge source areas outside of the

¹⁵ West Yost, 2022. *City of Dixon 2020 Urban Water Management Plan*. March 2022.

Subbasin.¹⁶ The GSP identifies areas with the highest recharge potential as those occurring along Putah Creek and in the Putah Creek alluvial fan in the northern portion of the Subbasin.

As the city continues to grow, adequate permeable surfaces will need to be incorporated into projects' landscape plans. The City regulates open space requirements, landscaping, and retention and detention basins to provide adequate groundwater recharge opportunities. Therefore, the cumulative impact on groundwater would be *less than significant*.

MITIGATION MEASURE(S)

None Required.

Impact 3.10-8: Implementation of the proposed Project, in combination with other cumulative development, would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in flooding on- or offsite; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows. (Less than Significant)

Cumulative development would increase the amount of impervious surfaces in the city limits, which could increase peak stormwater runoff rates and volumes. Individual projects would be required to provide stormwater collection and discharge facilities such that downstream peak flows do not exceed existing conditions. Future facilities and projects would be subject to the State Water Resources Control Board Requirements (SWRCB), City of Dixon regulations; Phase II, National Pollutant Discharge Elimination System (NPDES) Permit Requirements; NPDES-MS4 Permit Requirements; and LID Guidelines.

Stormwater quality standards imposed and monitored by the Environmental Protection Agency (EPA) and the SWRCB through the NPDES permit require treatment of stormwater runoff prior to its release into drainage features. Therefore, the cumulative impact to stormwater systems would be *less than significant*.

MITIGATION MEASURE(S)

None Required.

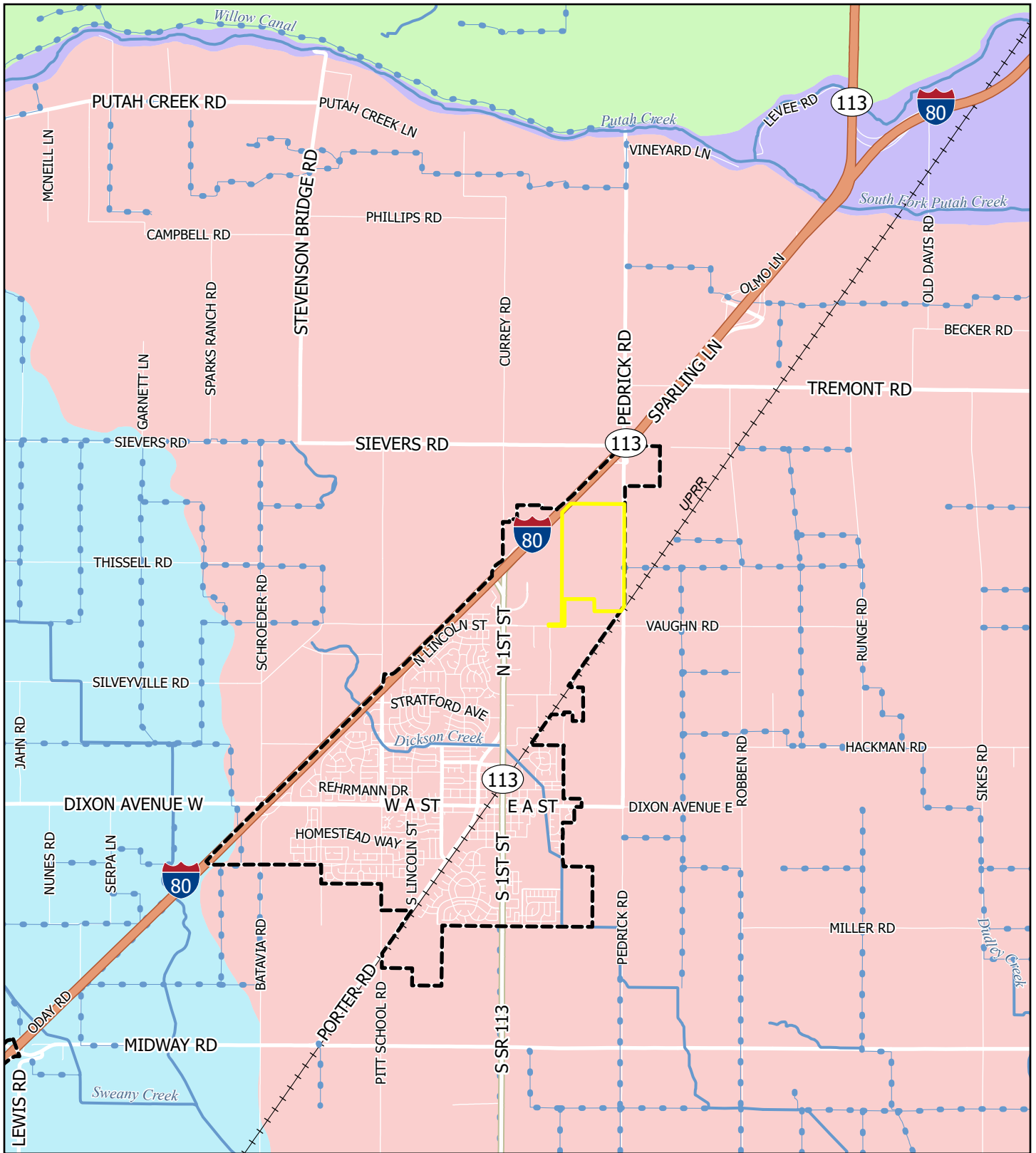
¹⁶ Luhdorff & Scalmanini Consulting Engineers, 2021. *Solano Subbasin Groundwater Sustainability Plan. Volume 1 – Main Report*. November 30, 2021. Page 3-5.

Impact 3.10-9: Implementation of the proposed Project, in combination with other cumulative development, would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones. (Less than Significant)

The city is not located in a flood hazard zone. The City's inland location does not make it prone to effects from tsunamis or seiches. Therefore, cumulative development would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones, and the cumulative impact would be *less than significant*.

MITIGATION MEASURE(S)

None Required.

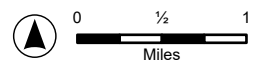


LEGEND

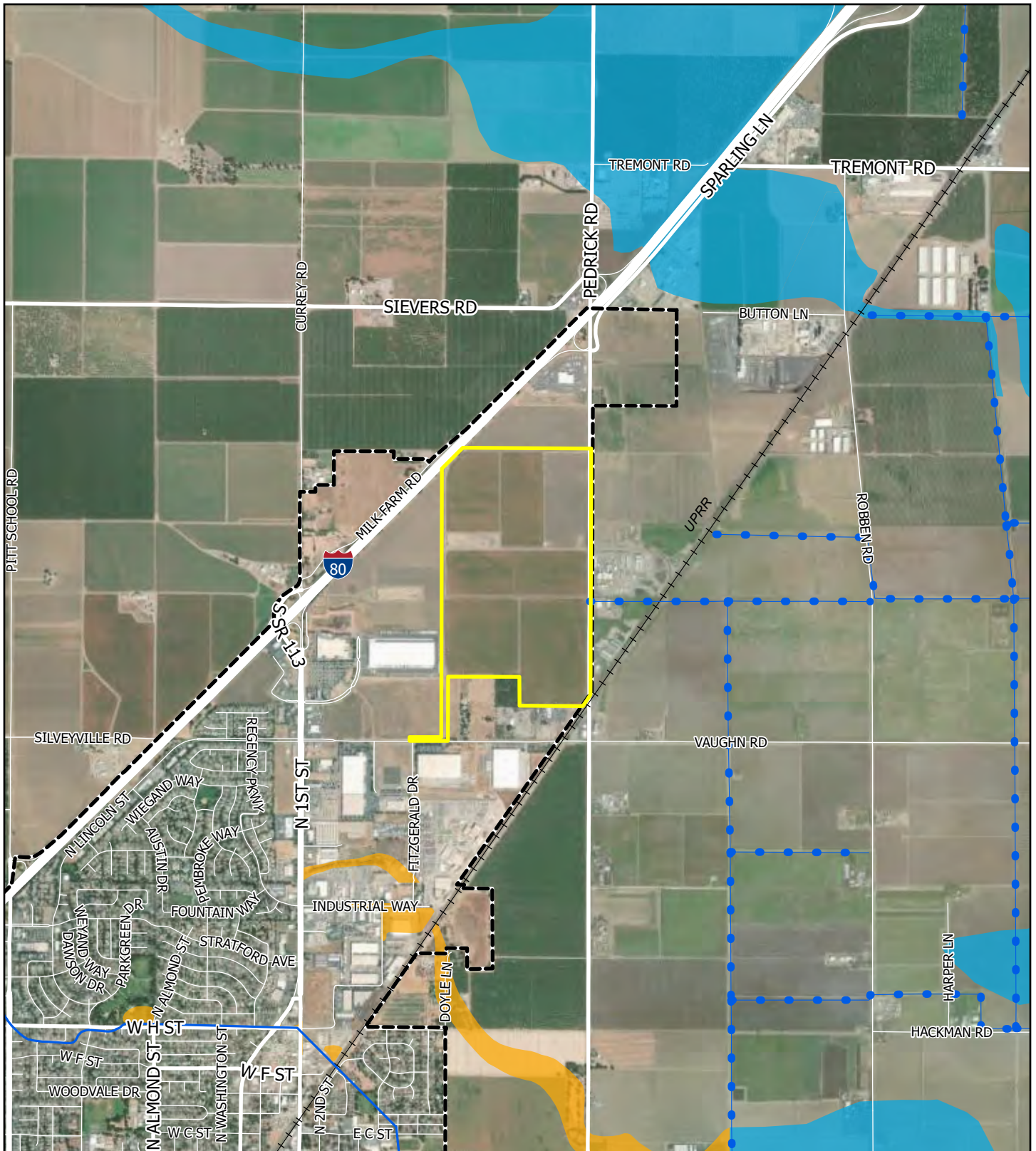
- The Campus Project Site
- Dixon City Boundary
- Stream/River
- Canal/Ditch
- Cache Slough
- Knights Landing Ridge Cut-Tule Canal
- Lower Putah Creek
- Ulatis Creek

THE CAMPUS EIR

Figure 3.10-1. Principal Watersheds Map



Sources: USGS National Hydrography and Watershed Boundary Datasets; Solano County GIS; CalTrans, Map date: April 25, 2024.



LEGEND

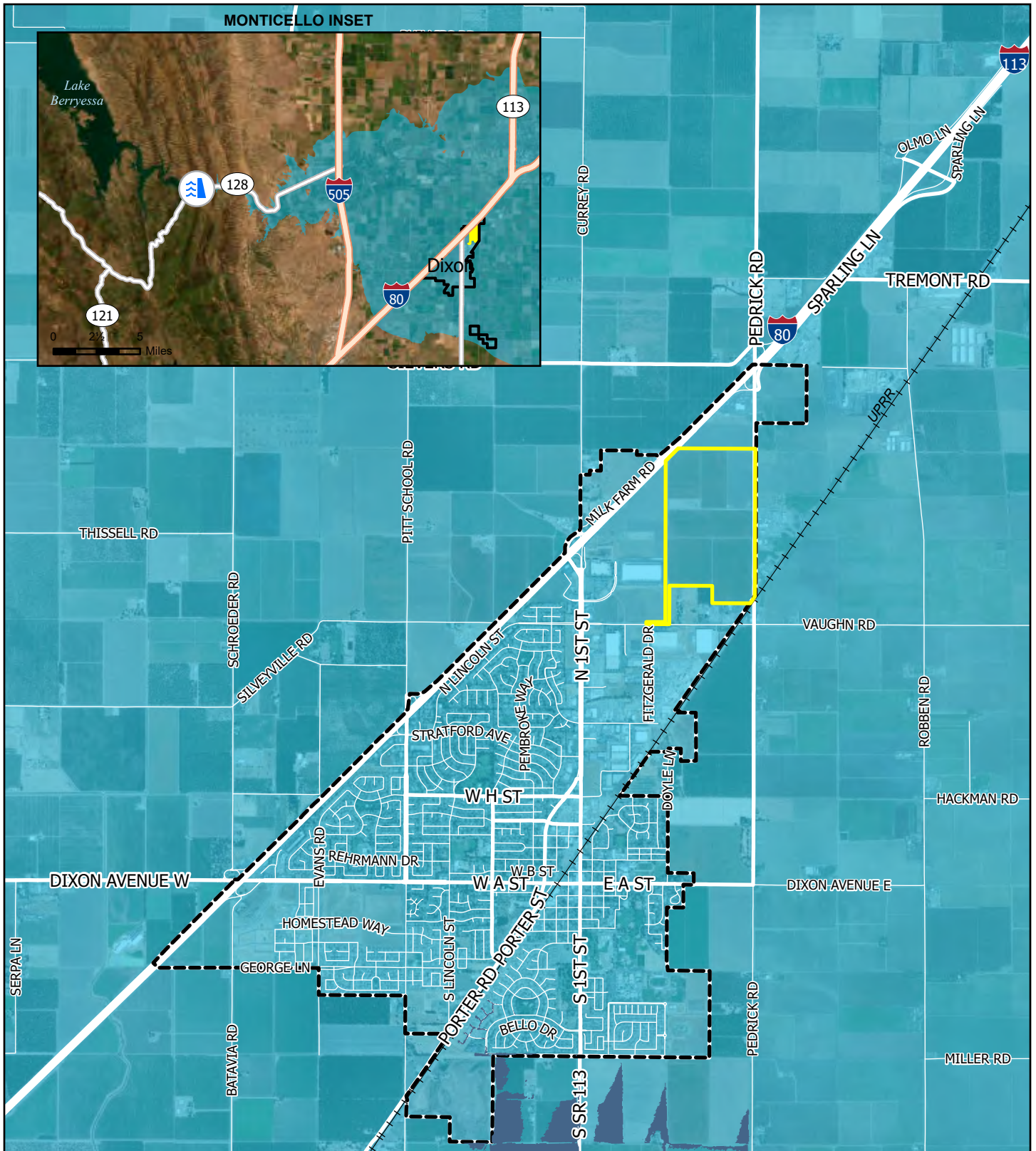
- The Campus Project Site
- Dixon City Boundary
- Dickson Creek
- Canal/Ditch
- 100-year Flood Zone
- 500-year Flood Zone
- unshaded Area of Minimal Flood Hazard

THE CAMPUS EIR






Figure 3.10-2. FEMA Flood Insurance Rate Map



Sources: FEMA National Flood Hazard Layer, Solano County, 12-3-2019; Solano County GIS; ArcGIS Online World Imagery Map Service; CalTrans, Map date: April 25, 2024.

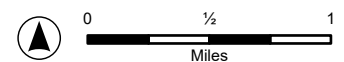


LEGEND

-  The Campus Project Site
-  Dixon City Boundary
-  Monticello Dam
-  Detention Pond A Inundation Area
-  Monticello Dam Inundation Area (Lake Berryessa)

THE CAMPUS EIR

Figure 3.10-3. Dam Inundation Map



The purpose of this EIR section is to identify the existing land use conditions on the proposed Project site and the surrounding areas, analyze the project's compatibility with existing land uses, and analyze the project's consistency with relevant planning documents and policies.

Information in this section is based on information provided by the project applicant, site surveys conducted by De Novo Planning Group in 2023, ground and aerial photographs, and the following reference documents:

- Dixon General Plan 2040 (City of Dixon, 2021);
- Draft Environmental Impact Report for the Dixon General Plan 2040 (City of Dixon, 2021);
- Northeast Quadrant Specific Plan (City of Dixon, Corrected 2023); and
- City of Dixon Municipal Code (City of Dixon, current through Ordinance 23-004, passed August 15, 2023).

During the NOP comment period for the EIR, comments regarding this topic were received from the County of Solano (October 1, 2023). The portion of this comment that relates to this topic is addressed within this section. Full comments are included in Appendix A of this EIR.

3.11.1 ENVIRONMENTAL SETTING

PROJECT SITE

The City of Dixon is located in the Central Valley region of Northern California, along the Interstate 80 (I-80) freeway corridor, with the cities of Davis and Sacramento located approximately six miles and 25 miles to the northeast, respectively, and the cities of Vacaville and San Francisco located approximately 15 miles and 65 miles to the west, respectively.

The Campus Project site is located within the City's Northeast Quadrant Specific Plan (NEQSP) and comprises nearly 40 percent of the plan's total 643+/- acres. The Project site is located on the eastern edge of the NEQSP adjacent to Pedrick Road. The Project site is comprised of Assessor Parcel Numbers (APNs) 0111-040-010, -020, -030, -040, and 0111-080-050, contains a total of 260 +/- acres.

The Project site is currently designated Campus Mixed Use (CAMU) by the Dixon General Plan. The Project site is currently zoned as Professional & Admin Office (PAO-PUD), Neighborhood Commercial (CN-PUD), and Light Industrial (ML-PUD). As an implementation to the General Plan updated in 2021 that changed the General Plan land use designation of this site to CAMU, the City is currently in the process of updating the Zoning Ordinance and Map to match the general plan

The project's regional location is shown in Figure 2.0-1 and the project area and site boundary are shown in Figure 2.0-2.

SURROUNDING LAND USES

The land directly north of the Project site is in agricultural use. The northwestern corner of the Project site is bordered by I-80 and the southeastern corner of the Project site is bordered by a railroad track.

The land directly to the east of the Project site contains agricultural and industrial uses. The land directly south of the site contains agricultural, rural residential, and industrial uses. The land to the west of the site contains industrial and agricultural uses.

The site is bounded by Pedrick Road with Solano County unincorporated Agricultural designated lands to the east, by Industrial designated lands to the north and south, and lands designated as Regional Commercial and Industrial to the west.

3.11.2 REGULATORY SETTING

STATE

Government Code

California Government Code Section 65300 *et seq.*, establishes the obligation of cities and counties to adopt and implement general plans. The general plan is a comprehensive, long-term, and general document that describes plans for the physical development of a jurisdiction and of any land outside its boundaries that, in the jurisdiction's judgment, bears relation to its planning. The general plan addresses a broad range of topics, including, at a minimum, land use, circulation, housing, conservation, open space, noise, and safety. In addressing these topics, the general plan identifies the goals, objectives, policies, principles, standards, and plan proposals that support the jurisdiction's vision for the area. The general plan is a long-range document that typically addresses the physical character of an area over a 20-year period. Although the general plan serves as a blueprint for future development and identifies the overall vision for the planning area, it remains general enough to allow for flexibility in the approach taken to achieve the plan's goals.

The State Zoning Law (California Government Code Section 65800 *et seq.*) establishes that zoning ordinances, which are laws that define allowable land uses within a specific district, are required to be consistent with the general plan and any applicable specific plans. When amendments to the general plan are made, corresponding changes in the zoning ordinance may be required within a reasonable time to ensure the land uses designated in the general plan would also be allowable by the zoning ordinance (Government Code, Section 65860, subd. [c]).

State of California Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000

The Cortese-Knox-Hertzberg Local Government Reorganization Act establishes procedures for local government changes of organization, including city incorporations, annexations to a city or special district, and city and special district consolidations. In approving an annexation, the LAFCo will consider the following factors:

- Population and population density; land area and land use; per capita assessed valuation; topography, natural boundaries, and drainage basins; proximity to other populated areas; and the likelihood of significant growth in the area and in adjacent incorporated and unincorporated areas during the next ten years.

- The need for organized community services; the present cost and adequacy of governmental services and controls in the area; probable future needs for those services and controls; and the probable effect of the pro-posed incorporation, formation, annexation, exclusion and of alternative courses of action on the cost and adequacy of services and controls in the area and adjacent areas.
- The effect of the proposed action and of alternative actions on adjacent areas, on mutual social and economic interests, and on the local government structure of the county.
- The conformity of both the proposal and its anticipated effects with both the adopted commission policies on providing planned, orderly, and efficient patterns of urban development, and the policies and priorities set forth in Government Code section 56377.
- The effect of the proposal on maintaining the physical and economic integrity of agricultural lands, as defined by Government Code section 56016.
- The definiteness and certainty of the boundaries of the territory, nonconformance of proposed boundaries with lines of assessment or ownership, creation of islands or corridors of unincorporated territory, and other similar matters affecting the proposed boundaries.
- Consistency with city or county general and specific plans.
- The sphere of influence of any local agency that may be applicable to the proposal being reviewed.
- The comments of any affected local agency.
- The ability of the newly formed or receiving entity to provide the services that are the subject of the application to the area, including the sufficiency of revenues for those services following the proposed boundary change.
- Timely availability of water supplies adequate for projected needs as specified in Government Code section 65352.5.
- The extent to which the proposal will affect a city or cities and the county in achieving their respective fair shares of the regional housing needs, as determined by the appropriate council of governments consistent with Housing Element laws.
- Any information or comments from lawmakers.
- Any information relating to existing land use designations.

In addition to the above factors, LAFCo may also consider any resolution raising objections to the action that may be filed by an affected agency, and any other matters which the commission deems material.

LOCAL

Regional Transportation Plan and Sustainable Communities Strategy

ABAG approved its most-recent Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), known as Plan Bay Area 2050, in October 2021, which outlines the long-range vision and the region's transportation system investments through 2050. Plan Bay Area 2050 coordinates future land uses with the long-term transportation investments so that the region can grow smartly and

sustainably. Plan Bay Area 2050 was prepared through a collaborative and comprehensive process. Key stakeholders also included the region's 101 cities and nine counties; regional agencies, the Bay Conservation and Development Commission and the BAAQMD; community-based organizations and advocacy groups, and some three dozen regional transportation partners. In addition, there were multiple rounds of engagement with the Bay Area's Native American tribes.

Plan Bay Area 2050 is the Bay Area's regional long-range plan adopted by Metropolitan Transportation Commission (MTC) and ABAG. Thirty-five strategies make up the heart of the plan to improve housing, the economy, transportation and the environment across the Bay Area's nine counties. A major goal of this Plan is to make the Bay Area more equitable for all residents and more resilient to unexpected challenges. Each strategy in Plan Bay Area 2050 has been crafted to advance equity, with particular attention paid to the needs of people living in Equity Priority Communities.

As defined by Plan Bay Area 2050, Priority Production Areas (PPAs) are locally identified places for job growth in middle-wage industries like manufacturing, logistics or other trades. An area must be zoned for industrial use or have a predominantly industrial use to be a PPA. The entire Project site is a PPA.

Solano Multispecies Habitat Conservation Plan

The Solano Multispecies Habitat Conservation Plan (Solano HCP) is currently in the draft stages and is not a final document or plan as of December 2023. If the Solano HCP becomes final prior to Project initiation, the Project proponent may apply for coverage under the Solano HCP.

The proposed Solano HCP establishes a framework for complying with State and Federal endangered species regulations while accommodating future urban growth, development of infrastructure, and ongoing operations and maintenance activities associated with flood control, irrigation facilities, and other public infrastructure undertaken by or under the permitting authority/control of the Plan Participants within Solano County. The City of Dixon is a voluntary participant in the proposed Solano HCP.

City of Dixon Northeast Quadrant Specific Plan (NEQSP)

The NEQSP establishes a land use and circulation plan, policies and guidelines for the ultimate development of 643 acres in the northeast portion of the City of Dixon. The specific plan defines the land use and development concepts to be applied in the plan area and is intended to implement the objectives and policies of the City of Dixon General Plan. The specific plan is a policy document that establishes general criteria for development to be implemented through a Planned Development (PD) or equivalent regulatory mechanism.

The purpose of the NEQSP is to implement the goals, policies and objectives defined by the General Plan and to further develop the specific land use classifications and development guidelines for the plan area. Specifically, this involves defining land use categories for Regional Commercial, Industrial and, Campus Mixed Use development. It also involves defining the specific development requirements to: establish a scenic gateway to the community; provide for efficient vehicular and pedestrian circulation; facilitate transportation choices; establish an open space system for habitat

management, drainage and agricultural buffer; and to ensure that all development in the plan area is integrated with the City's provision of infrastructure and service.

The Project site is located on the eastern edge of the NEQSP adjacent to Pedrick Road.

City of Dixon General Plan

The City of Dixon General Plan articulates the community's vision of its long-term physical form and development. The Dixon General Plan is a dynamic document that sets forth conditions to guide development and conservation in the city for years to come. It reflects community aspirations to cultivate a family-friendly city with a small-town feel that grows wisely, remains true to its agricultural roots, and provides good jobs and housing for local residents. General plans are prepared under a mandate from the State of California, which requires that each city and county prepare and adopt a comprehensive, long-term general plan for its jurisdiction and any adjacent related lands. State law requires General Plans to address seven mandated components: circulation, conservation, housing, land use, noise, open space, and safety. The Housing Element is published under a separate cover. Chapter 2 through 6 contain the bulk of the City's General Plan in the form of goals, policies, and actions which address the State-required components as well as additional issues identified by the City. Each of the chapters provide background information on a topic and the goals, policies, standards and actions that apply to it. Chapters 2 through 6 include:

- Chapter 2, Natural Environment, addresses the following required elements: conservation, open space, safety, noise, environmental justice, and climate adaptation. This chapter addresses the following optional elements: air quality, agriculture, and climate change.
- Chapter 3, Land Use and Community Character, addresses the following required elements: land use and conservation. This chapter addresses the following optional elements: agriculture, community design, and historic resources.
- Chapter 4, Economic Development, addresses the following optional elements: economic development.
- Chapter 5, Mobility, addresses the following required elements: circulation.
- Chapter 6, Public Services and Facilities, addresses the following required elements: open space and safety.

GENERAL PLAN LAND USE DESIGNATIONS MAP

The Land Use Designations Map portrays the anticipated uses of land in and around Dixon through land use designations. The City's Land Use Map designates the Project site as CAMU.

As defined by the City's 2040 General Plan, the CAMU designation is intended to foster new mixed-use employment districts with a range of job-generating uses, housing, and easy access to the regional transportation network. The CAMU designation would promote clusters of related light industrial, manufacturing, office, research & development, retail, hotel, service, and residential uses on large parcels near or adjacent to I-80 and State Route 113 (SR-113) at gateways to the city. The CAMU designation is primarily intended to support mixed-use development projects, however single-use

projects may be permitted so long as a mix of uses is developed throughout the CAMU designation. Mixed use can be vertical and/or horizontal. Allowable FAR is 30 percent to 60 percent (combined residential and non-residential uses) and maximum allowable residential density is 30 dwelling units per acre. Corresponding zoning will be performance-based in order to promote flexibility and minimize non-conformance issues of existing uses.

GENERAL PLAN LAND USE POLICIES

General Plan policies and actions applicable to environmental issues associated with the proposed Project land use designation and project location within the NEQSP are summarized below. General Plan policies associated with specific environmental topics (aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology/soils, hazards, hydrology/water quality, housing, noise, parks, public services, transportation, utilities, etc.) are discussed in the relevant chapters of this EIR and in Table 3.11-1.

Policy LCC-5.4 Grow the base of industrial and commercial employers in the Northeast Quadrant, and highway adjacent areas of the Southwest Dixon Specific Plan area, focusing uses that have common needs in this area to capitalize on synergies and minimize conflicts with other uses.

Policy LCC-5.5 Foster a mixed use employment district in the Northeast Quadrant, leveraging the availability of large parcels and the proximity to UC Davis.

Policy LCC-5.6 In the Campus Mixed Use land use designation shown on Figure LCC-4, permit warehouse and distribution uses subject to a development agreement establishing a financial mechanism to provide for ongoing revenue generation to the City from those uses and environmental review, which may include additional mitigation measures, to ensure there are no new or substantially more severe impacts than identified in the 2040 General Plan EIR.

Action LCC-5.B Work with the Metropolitan Transportation Commission to capitalize on the opportunities afforded by the PPA designation applicable in the Northeast Quadrant.

City of Dixon Zoning Code

Title 18 of the City's Municipal Code contains the Zoning Code. The Project site is currently zoned as PAO-PUD, CN-PUD, and ML-PUD. The project would include a rezone to Campus Mixed Use Planned Development (CAMU-PD) consistent with the property's current General Plan land use designation of CAMU.

PLANNED DEVELOPMENT

Chapter 18.18 of the Municipal Code outlines the planned development zoning district (PD zoning district) regulations. The purpose of the PD zoning district is to provide the City with a process which authorizes more flexibility in the design of development projects with specially designated areas of the City than would be possible through the strict application of the zoning regulations contained in

this title to new development in those areas. The area designated as a PD zoning district may, as determined by the Council, consist of a single parcel or may include an entire neighborhood.

Each PD zoning district established under Section 18.18.020 of the Code must be developed to conform to standards contained in a planned development plan (“PD plan”) for lands in the district. Each PD plan must be specially prepared and approved by the Council under the procedures provided for in this section. Implementation of the PD district can take the form of the following three (3) types of plan documents:

- A. A PD plan may consist of a detailed development plan prepared for the lands in the PD zoning district which has been prepared in accordance with the standards contained in this section.
- B. A PD plan may also consist of a specific plan for lands in the PD district in accordance with the requirements of Sections 65450 to 65457 of the Planning and Zoning Law which govern such plans.
- C. Finally, a PD plan for development of residential lands or mixed use residential lands in a PD district may also consist of a PUD development plan prepared in accordance with the requirements of Chapter 18.21 DMC.

All PD plans must be reviewed by the Planning Commission and approved by City Council in accordance with the requirements of this section and the Government Code before they become effective. [Ord. 13-008 § 2; Ord. 13-009 § 2(1).]

Additionally, all development of lands in a PD zoning district must be consistent with the General Plan and any applicable specific plan. In addition, development standards intended to promote and protect the public health, safety and general welfare of the residents of Dixon should be included in each PD plan to the extent they are determined by the Council to be needed for each PD district.

3.11.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on land use and planning if it will:

- Physically divide an established community;
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; and/or
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

IMPACTS AND MITIGATION MEASURES

Impact 3.11-1: The proposed Project would not result in the physical division of an established community. (No Impact)

As noted in the Dixon General Plan, the City of Dixon has planned for orderly, logical development that supports compatibility among adjacent uses via the compatibility standards. The General Plan describes that it seeks to ensure the provision of efficient services while discouraging urban sprawl and the premature conversion of agricultural and open space lands by preventing overlapping jurisdictions and duplication of services.

The approximately 260-acre Project site is currently undeveloped and has been previously used for agricultural uses. The Project site has developed land uses on three sides, with rural residential development located to the northwest (across I-80). The proposed Project would consist of a phased, mixed-use development that includes an approximately 48-acre Dixon Opportunity Center, approximately 144 acres of residential uses, and approximately 2.5 acres of commercial uses. The project would be phased such that the areas adjacent to existing development would be developed first. The proposed Project would not physically divide an established community. Rather, the project represents a mixed-use development within the City limits, adjacent to areas of the City that are currently urbanized. Therefore, the project would have *no impact* related to physically dividing an established community.

MITIGATION MEASURES

None Required.

Impact 3.11-2: The proposed Project would not conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted to avoid or mitigate an environmental effect. (Less than Significant)

CONSISTENCY WITH THE SOLANO COUNTY GENERAL PLAN

Some of the land to the east of the Project site, located in Solano County and outside the Dixon City limits, is currently in agricultural production. The land to the east is governed by the Solano County General Plan and zoning ordinance. The proposed Project is not under the jurisdiction of Solano County. As such, County policy documents, such as the Solano County General Plan, do not apply to the Project. It is anticipated that those agricultural lands to the east would remain as agricultural land uses until (if and when) the County changes the land use designation for that land. However, the proposed Project would not result in a conflict with the County's General Plan or zoning ordinance. This is considered a *less-than-significant* impact.

CONSISTENCY WITH THE CITY OF DIXON NEQSP

As noted previously, the NEQSP establishes a land use and circulation plan, policies and guidelines for the ultimate development of 643 acres in the northeast portion of the City of Dixon. The NEQSP defines the land use and development concepts to be applied in the plan area and is intended to implement the objectives and policies of the City of Dixon General Plan.

The Project site is located on the eastern edge of the NEQSP adjacent to Pedrick Road. The proposed Project includes amendments to the NEQSP related to utilities and circulation. Specifically, the proposed NEQSP amendment includes modifications to the wastewater collection system to better serve The Campus. Additionally, the proposed NEQSP amendment defines a Conceptual Drainage Plan solution for the NEQSP area that includes defining a stand-alone drainage solution for The Campus. Further, as defined in the proposed amendment to the NEQSP, the planned Vaughn Road cut-off at the southern end of the Project site is proposed as “Commercial Drive” as defined in the original NEQSP. This would allow traffic to travel from Professional Drive to Pedrick Road and allow for the termination of Vaughn Road and eliminating the existing Vaughn Road railroad crossing. The intersection of Commercial Drive and Pedrick Road would be located such that it allows maximum flexibility to address the future Pedrick Road over-crossing of the railroad located at the extreme southeastern corner of the Project site.

The proposed NEQSP amendment will ensure the project’s consistency with the City’s NEQSP requirements pertaining to utilities and circulation. This is considered a *less-than-significant* impact.

CONSISTENCY WITH THE CITY OF DIXON GENERAL PLAN

The Land Use Map portrays the anticipated uses of land in and around Dixon through land use designations. The City’s Land Use Map designates the Project site as CAMU. As defined by the City’s 2040 General Plan, the CAMU designation is intended to foster new mixed-use employment districts with a range of job-generating uses, housing, and easy access to the regional transportation network. The CAMU designation would promote clusters of related light industrial, manufacturing, office, research & development, retail, hotel, service, and residential uses on large parcels near or adjacent to I-80 and SR-113 at gateways to the City. The CAMU designation is primarily intended to support mixed-use development projects, however single-use projects may be permitted so long as a mix of uses is developed throughout the CAMU designation. Mixed use can be vertical and/or horizontal. Allowable FAR is 30 percent to 60 percent (combined residential and non-residential uses) and maximum allowable residential density is 30 dwelling units per acre. Corresponding zoning will be performance-based in order to promote flexibility and minimize non-conformance issues of existing uses.

The project proposes a mixed-use development planned to fully realize the intent of the City’s recently created Campus Mixed Use General Plan designation. As defined by the City’s 2040 General Plan, the intent of the Campus Mixed Use designation is “... to foster new mixed employment districts with a range of job-generating uses, housing, and easy access to the regional transportation network.” The proposed uses would include job-generating uses and housing in an area of the City that has easy

3.11 LAND USE

access to I-80. Additionally, as shown in Table 2-1 in Chapter 2, Project Description, the proposed Project would result in a residential density of 7.2 dwelling units per acre. Further, the proposed Dixon Opportunity Center (DOC) would result in an employment FAR of 30 (based on a calculation of 660,000 square feet over 50.36 acres or 2,193,681 square feet). As such, the proposed uses and densities are consistent with the allowed CAMU densities.

Additionally, as shown in **Table 3.11-1**, the Project is consistent with the applicable General Plan policies and actions that aim to avoid or mitigate an environmental effect.

TABLE 3.11-1: GENERAL PLAN POLICY/ACTION CONSISTENCY

<i>GENERAL PLAN POLICY/ACTION</i>	<i>PROJECT CONSISTENCY</i>
<i>NATURAL ENVIRONMENT ELEMENT</i>	
<p>Policy NE-1.1 Preserve the natural open space and agricultural lands that surround Dixon through continued leadership in cross-jurisdictional conservation initiatives such as the Vacaville-Dixon Greenbelt and the Davis-Dixon greenbelt.</p>	<p>Consistent: As discussed previously, the Project site is in an agricultural setting and was used to cultivate various row crops. Aerial imagery of the Project site indicates row crops have been cultivated on the site for at least the past thirty-five years. The site was anticipated for development of Campus Mixed Use uses as part of the City’s General Plan (adopted in 2021) as well as the NEQSP (adopted in 1995). The project proposes a mixed-use development planned to fully realize the intent of the City’s recently created Campus Mixed Use General Plan designation. As defined by the City’s 2040 General Plan, the intent of the Campus Mixed Use designation is “... to foster new mixed employment districts with a range of job-generating uses, housing, and easy access to the regional transportation network.” The General Plan EIR anticipated development of the Project site as part of the overall evaluation of the buildout of the City.</p>
<p>Policy NE-1.2 Support regional efforts to place additional land under permanent conservation easements and continue to use the Agricultural Land Mitigation Fund to collect development impact fees for the purpose of funding greenbelt expansion.</p>	<p>Consistent: As discussed previously, the project proposes a mixed-use development planned to fully realize the intent of the City’s recently created Campus Mixed Use General Plan designation. As defined by the City’s 2040 General Plan, the intent of the Campus Mixed Use designation is “... to foster new mixed employment districts with a range of job-generating uses, housing, and easy access to the regional transportation network.” The project would not prohibit the City from achieving the intent of this policy.</p>
<p>Policy NE-1.3 Encourage open space preservation through easements, open space designation, or dedication of lands for the purpose of connecting conservation areas, protecting biodiversity, accommodating wildlife movement, and sustaining ecosystems.</p>	<p>Consistent: As discussed previously, the project proposes a mixed-use development planned to fully realize the intent of the City’s recently created Campus Mixed Use General Plan designation. As defined by the City’s 2040 General Plan, the intent of the Campus Mixed Use designation is “... to foster new mixed employment districts with a range of job-generating uses, housing, and easy access to the regional transportation network.” The project would not prohibit the City from achieving the intent of this policy.</p>

<i>GENERAL PLAN POLICY/ACTION</i>	<i>PROJECT CONSISTENCY</i>
<p>Policy NE-1.4 Prior to annexing land into the city or expanding the SOI, continue to require agricultural mitigation consistent with the Solano County Local Agency Formation Commission’s Standards and Procedures when agricultural lands would be converted to nonagricultural purposes.</p>	<p>Does Not Apply. The project does not require annexation into the city or expanding the SOI.</p>
<p>Policy NE-1.5 Continue to allow agriculture as an interim use on land within the City that is designated for future urban use.</p>	<p>Consistent. The Project site would continue to be used for agricultural purposes on an interim basis as the project’s final improvement and grading plans are developed and the site is developed pursuant to the proposed Phasing Plan.</p>
<p>Policy NE-1.9 Facilitate groundwater recharge in Dixon by encouraging development projects to use Low Impact Development (LID) practices such as bioretention, porous paving, and green roofs, and by encouraging private property owners to design or retrofit landscaped or impervious areas to better capture storm water runoff.</p>	<p>Consistent. The project designs will incorporate groundwater recharge elements, including use of a 25-acre stormwater retention basin, and use of bio-filtration and other landscape design features in parks, paseos and for the DOC site plans.</p>
<p>Policy NE-1.12 Ensure that adverse impacts on sensitive biological resources, including special-status species, sensitive natural communities, sensitive habitat, and wetlands are avoided or mitigated to the greatest extent feasible as development takes place.</p>	<p>Consistent. Section 3.4, Biological Resources, of this Draft EIR discusses impacts to biological resources, including special-status species, sensitive natural communities, sensitive habitat, and wetlands. As noted in Section 3.4, mitigation measures are included to reduce the potential impacts to special-status birds to a less-than-significant level. Additionally, Section 3.4 includes mitigation measures to reduce the potential impacts to jurisdictional waters.</p>
<p>Policy NE-1.13 In areas where development (including trails or other improvements) has the potential for adverse effects on special-status species, require project proponents to submit a study conducted by a qualified professional that identifies the presence or absence of special-status species at the proposed development site. If special-status species are determined by the City to be present, require incorporation of appropriate mitigation measures as part of the proposed development prior to final approval.</p>	<p>Consistent. An Aquatics Resources Delineation and a Biological Resources Assessment were completed for the Project. The results and recommendations of both documents are incorporated into Section 3.4, Biological Resources, of this Draft EIR. As noted above, Section 3.4 discusses impacts to biological resources, including special-status species, sensitive natural communities, sensitive habitat, and wetlands. As noted in Section 3.4, mitigation measures are included to reduce the potential impacts to special-status birds to a less-than-significant level. Additionally, Section 3.4 includes mitigation measures to reduce the potential impacts to jurisdictional waters.</p>
<p>Policy NE-1.15 Recognize the importance of the urban forest to the natural environment in Dixon and expand the tree canopy on public and private property throughout the community.</p>	<p>Consistent. Trees will be planted throughout the Project site, including street trees along roadways, in parks and paseos, and used as part of site landscaping for the DOC, commercial and multi-family residential developments.</p>
<p>Policy NE-1.18 Require new development to provide and maintain street trees suitable to local climatic conditions.</p>	<p>Consistent. The project would include planting of street trees along all interior roadways developed as part of the project. Landscape plan details are included both as part of the NEQSP and in the project landscape plan details.</p>

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<i>GENERAL PLAN POLICY/ACTION</i>	<i>PROJECT CONSISTENCY</i>
<p>Policy NE-2.1 Promote energy conservation throughout the community and encourage the use of renewable energy systems to supplement or replace traditional building energy systems.</p>	<p>Consistent. The project would be constructed consistent with the City’s Building Code, which includes requirements to ensure energy and water conservation. Additionally, new light industrial, research and development, office, commercial and multi-family residential buildings will incorporate and promote health and wellbeing design characteristics. Further, the Project would support the use of zero-emission and low-emission vehicles. Electric charging infrastructure will be installed on the property to facilitate the conversion of the truck fleet to zero-emission electric trucks once commercially available.</p>
<p>Policy NE-2.5 Encourage new development to optimize water efficiency measures and conservation practices possible in their design and construction.</p>	<p>Consistent. The project will incorporate water-efficient landscaping in the design of parks and paseos, and for on-site landscaping improvements for the DOC, commercial and multi-family residential areas.</p>
<p>Policy NE-2.6 Promote the use of water-efficient landscaping on existing private property.</p>	<p>Consistent. As noted above, the project will incorporate water-efficient landscaping in the design of parks and paseos, and for on-site landscaping improvements for the DOC, commercial and multi-family residential areas.</p>
<p>Policy NE-2.7 Conserve water through the provision of water efficient infrastructure, drought tolerant plantings, greywater usage to support public parks and landscaped areas.</p>	<p>Consistent. As noted above, the project will incorporate water-efficient landscaping in the design of parks and paseos, and for on-site landscaping improvements for the DOC, commercial and multi-family residential areas.</p>
<p>Policy NE-2.8 Conserve water through the planting and maintenance of trees, which will provide for the capture of precipitation and runoff to recharge groundwater, in addition to providing shading for other landscaping to reduce irrigation requirements. Ensure that any ‘community greening’ projects utilize water-efficient landscape.</p>	<p>Consistent. A full landscape plan, which will include trees, will be required for the project.</p>
<p>Action NE-3.A Provide recycling receptacles in parks and public spaces, in addition to trash receptacles.</p>	<p>Consistent. Recycling receptacles will be included as part of park and paseo design plans, along with placement of trash receptacles.</p>
<p>Policy NE-4.1 Protect life, the natural environment, and property from hazards due to seismic activity and geologic hazards.</p>	<p>Consistent. Geotechnical and seismic hazards are addressed as part of the Draft EIR, and all impacts were determined to be less than significant. It is also noted that the project would be designed and constructed consistent with City-adopted Building Codes to ensure protection from seismic hazards.</p>
<p>Policy NE-4.2 Ensure that structures intended for human occupancy and critical facilities are designed and constructed to retain their structural integrity and key operational capabilities when subjected to seismic activity or geologic hazards, in accordance with the California Building Code.</p>	<p>Consistent. As noted above, geotechnical and seismic hazards are addressed as part of the Draft EIR, and all impacts were determined to be less than significant. It is also noted that the project would be designed and constructed consistent with City-adopted Building Codes to ensure protection from seismic hazards.</p>
<p>Policy NE-4.3 In areas of high liquefaction risk (see Figure NE-4), require that project proponents submit geotechnical investigation reports and demonstrate that the project conforms to all recommended mitigation measures prior to City approval.</p>	<p>Consistent. As noted above, geotechnical and seismic hazards are addressed as part of the Draft EIR, and all impacts (including liquefaction) were determined to be less than significant. It is also noted that the project would be designed and constructed consistent with City-adopted Building Codes to ensure protection from seismic hazards.</p>

<i>GENERAL PLAN POLICY/ACTION</i>	<i>PROJECT CONSISTENCY</i>
Policy NE-4.4 Require new development to deploy best practices for minimizing erosion and promoting slope stabilization in areas that have been subject to erosion or landslides.	Consistent. The Project site is generally level and has no significant risk of slope failures and requirements for slope stabilization.
Policy NE-4.6 Ensure that new development is sited, constructed, and operated to minimize impacts and risks of flood hazards to public health, safety, and welfare.	Consistent. Flood hazards are addressed in Section 3.10, Hydrology and Water Quality, of Draft EIR. The project includes use of a 25-acre stormwater retention basin to ensure stormwater runoff from the project can be safely accommodated on-site.
Policy NE-4.8 Prohibit new critical and essential public services and facilities from being located in the floodplain, as shown on Figure NE-7. Retrofit existing facilities to be flood-resilient and remain operational in the event of a flood.	Consistent. Flood hazards are addressed as part of the Draft EIR. The project includes use of a 25-acre stormwater retention basin to ensure stormwater runoff from the project can be safely accommodated on-site. It is noted that the project does not include critical public services or facilities.
Policy NE-4.11 Evaluate proximity to fire hazard and wildland-urban interface areas and feasibility of maintaining defensible space as part of the development review process.	Consistent. Wildfire hazards have been evaluated as part of the Draft EIR. As noted in Section 3.9, Hazards and Hazardous Materials, there are no areas designated as moderate, high, or very high Fire Hazard Severity Zones (FHSZs) within the City, including the Project site. The nearest high and very high fire FHSZs are located to the west of Dixon, along the western boundary of Solano County. Additionally, as discussed in the City's General Plan EIR, the Project site is classified as having little to no fire threat. The project includes full emergency vehicle access provisions through use of street design and lot layouts for residential units, and compliance with the City's adopted Fire Code for building design.
Policy NE-4.12 Ensure adequate firefighting infrastructure. including water supply and pressure. road and building clearance for firefighting vehicles. and clear and legible street signage throughout the community.	Consistent. As noted above, wildfire hazards have been evaluated as part of the Draft EIR. The project includes full emergency vehicle access provisions through use of street design and lot layouts for residential units, and compliance with the City's adopted Fire Code for building design.
Policy NE-4.21 Encourage new developments and existing property owners to incorporate sustainable, energy-efficient, and environmentally regenerative features into their facilities, landscapes, and structures to reduce energy demands and improve on-site resilience to heat.	Consistent. The project would be constructed consistent with the City's Building Code, which includes requirements to ensure energy and water conservation. Additionally, the Project would support the use of zero-emission and low-emission vehicles. Electric charging infrastructure will be installed on the property to facilitate the conversion of the truck fleet to zero-emission electric trucks once commercially available.
Action NE-4.A Continue to implement provisions for flood hazard reduction in Special Flood Hazard Areas in order to limit the potential for adverse effects on public health, safety, and general welfare.	Consistent. Flood hazards are addressed as part of the Draft EIR. The project includes use of a 25-acre stormwater retention basin to ensure stormwater runoff from the project can be safely accommodated on-site.
Policy NE-4.32 Require new development to be served by at least two access points.	Consistent. Multiple vehicular access points are provided as part of the Project site plan, along with construction of interior roadways to ensure appropriate emergency vehicle access.
Policy NE-4.33 Work with Union Pacific Railroad to create an overpass or underpass to ensure that traffic is able to cross the railroad during an emergency.	Consistent. The project incorporates the City's planned Vaughn Road cut-off (proposed as Commercial Drive) to allow traffic to proceed from Professional Drive to Pedrick Road, allowing for termination of Vaughan Road and elimination of the existing Vaughan Road railroad crossing.

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<i>GENERAL PLAN POLICY/ACTION</i>	<i>PROJECT CONSISTENCY</i>
Policy NE-5.2 Continue to use the Yolo-Solano Air Quality Management District’s Handbook for Assessing and Mitigating Air Quality Impacts for environmental review of proposed development projects.	Consistent. Full air quality and greenhouse gas emission analyses have been incorporated into the Draft EIR. The air quality and greenhouse gas emission analyses are based on the Yolo-Solano Air Quality Management District’s Handbook for Assessing and Mitigating Air Quality Impacts.
Policy NE-5.3 Require dust abatement actions for all new construction and redevelopment projects, consistent with the Yolo-Solano Air Quality Management District’s Best Available Control Measures.	Consistent. As noted above, full air quality and greenhouse gas emission analyses have been incorporated into the Draft EIR. Dust abatement is required as a mitigation measure related to site grading, installation of utilities and for new construction.
Policy NE-5.5 Encourage development to minimize grading related to the topography and natural features in order to limit soil erosion.	Consistent. While the Project site is generally level, appropriate grading controls have been incorporated into the project design and preliminary grading plan to limit potential for any significant soil erosion. This will also include use of vegetative cover for graded areas to minimize soil erosion.
Policy NE 5.6 Require construction projects that disturb 10,000 square feet of ground cover revegetate graded areas with native or locally appropriate vegetation to restore biological diversity and minimize erosion and soil instability.	Consistent. As noted above, while the Project site is generally level, appropriate grading controls have been incorporated into the project design and preliminary grading plan to limit potential for any significant soil erosion. This will also include use of vegetative cover for graded areas to minimize soil erosion.
Policy NE-5.9 Protect surface water and groundwater resources from contamination from point (single location) and non-point (many diffuse locations) sources by pursuing strategies to minimize the pollutant and sediment levels entering the hydrological system through stormwater, agricultural, and other urban runoff.	Consistent. The project includes drainage plans and designs that would alleviate impacts to groundwater resources. These includes use of Best Management Practices, use of bioswales and similar filtration designs. Performance standards also apply to the project that will further address potential use of hazardous substances related to light industrial uses and protection from runoff into storm drainage systems.
Action NE-5.C Consider developing a green infrastructure plan that employs tools such as bioswales, permeable pavement, rain gardens, rain barrels and cisterns, and green roofs to treat stormwater, attenuate floods, increase groundwater recharge, and reduce urban heat islands.	Consistent. The project includes drainage plans and designs that would alleviate impacts to groundwater resources. These includes use of Best Management Practices, use of bioswales and similar filtration designs.

<i>GENERAL PLAN POLICY/ACTION</i>	<i>PROJECT CONSISTENCY</i>
<p>Policy NE-5.15 Regulate development on sites with known contamination of soil or groundwater to ensure that construction workers, future occupants, adjacent residents, and the environment are adequately protected from hazards associated with contamination.</p>	<p>Consistent. Section 3.9, Hazards and Hazardous Materials, of this Draft EIR discusses site contamination. As noted in Section 3.9, based on the Phase I ESA, a 2005 subsurface investigation in the area of a former 10,000-gallon diesel aboveground storage tank (associated with the former Mistler Farm facility, located within the northwestern portion of the Project site) identified diesel impact to soil and groundwater. Following remedial and monitoring activities, it was concluded that the limited remaining residual petroleum hydrocarbons in the subsurface attributable to historical releases from the AST did not represent a significant threat to human health or the environment. Therefore, impacts would be less than significant in this regard. Additionally, the Phase I ESA indicates that an open pit was excavated in the western portion of the former Mistler Farm facility (located within the northwestern portion of the Project site) and that various wastes were disposed/landfilled in the pit. Compliance with standard construction practices and the existing regulatory requirements would reduce potential impacts in this regard to a level that is less than significant.</p>
<p>Policy NE-5.19 Apply the General Plan noise and land use compatibility standards to all new residential, commercial, and mixed-use development and redevelopment, as shown in Table NE-2.</p>	<p>Consistent. The Draft EIR analyzes potential noise impacts and identifies mitigation measures to ensure noise impacts are reduced to levels of insignificance, and to ensure that the project development complies with applicable City noise standards.</p>
<p>Policy NE-5.20 Require acoustical studies with appropriate mitigation measures for projects that are likely to be exposed to noise levels that exceed the ‘normally acceptable’ standard and for any other projects that are likely to generate noise in excess of these standards.</p>	<p>Consistent. As noted above, the Draft EIR analyzes potential noise impacts and identifies mitigation measures to ensure noise impacts are reduced to levels of insignificance, and to ensure that the proposed Project complies with applicable City noise standards.</p>
<p>Policy NE-5.21 Require that new noise-producing uses are located sufficiently far away from noise-sensitive receptors and/or include adequate noise mitigation, such as screening, barriers, sound enclosures, noise insulation, and/or restrictions on hours of operation.</p>	<p>Consistent. As noted above, the Draft EIR analyzes potential noise impacts and identifies mitigation measures to ensure noise impacts are reduced to levels of insignificance, and to ensure that the proposed Project complies with applicable City noise standards.</p>
<i>LAND USE AND COMMUNITY ELEMENT</i>	
<p>Policy LCC-1.1 Recognize and maintain Dixon as a community surrounded by productive agricultural land and greenbelts.</p>	<p>Consistent. The Project site is located within the city limits and is designated for mixed use development in the General Plan.</p>
<p>Policy LCC-1.2 Maintain designated urban-agricultural buffers within City jurisdiction to minimize conflicts with adjoining agricultural uses.</p>	<p>Consistent. The proposed development adjoins Pedrick Road along its west boundary, with some agricultural land uses located on the opposite side of Pedrick Road. The proposed Project would in effect be buffered from agricultural uses by Pedrick Road, which will be modified to include bicycle/pedestrian and landscape improvements as part of the final roadway design.</p>

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<i>GENERAL PLAN POLICY/ACTION</i>	<i>PROJECT CONSISTENCY</i>
<p>Policy LCC-1.3 Promote a land and resource efficient development pattern and limit “leap frog” development in order to support efficient delivery of public services and infrastructure, conserve agricultural and open space lands, reduce vehicle trips, and improve air quality.</p>	<p>Consistent. The proposed Project is part of planned development in the northeast area of the City, as identified in General Plan 2040 and the NEQSP, and does not constitute “leap frog” development. Development has occurred on adjoining lands to the west, south and north, consisting of light industrial/warehouse and commercial development. The project includes extension of infrastructure into the site and provision of needed public services to support the range of proposed mixed land uses.</p>
<p>Policy LCC-1.4 Expand employment and other tax revenue generating opportunities locally and provide sufficient lands for commercial, industrial, residential and public uses while ensuring that a high quality of life is maintained in Dixon.</p>	<p>Consistent. The NEQSP and the General Plan’s CAMU designation for the Project site provides 260 acres for a mix of land uses, including light industrial, commercial and residential, along with public parks and open spaces.</p>
<p>Policy LCC-1.5 Realize a steady, controlled rate of residential growth and a balanced mix of housing opportunities throughout Dixon that meets the needs of a range of income levels, ages and household sizes.</p>	<p>Consistent. The proposed Project includes up to 1,041 new housing units, consisting of low- and medium-density housing with a mix of lot sizes and housing products, along with high-density residential development that will provide housing for a variety of income levels and household sizes.</p>
<p>Policy LCC-1.6 Provide for the extension of public services in a logical and functional manner to support employment and housing growth.</p>	<p>Consistent. The proposed Project site is planned for mixed use development pursuant to General Plan 2040 and the NEQSP. This includes provision of public services and extension of water and wastewater lines into the Project site, along with construction of other necessary infrastructure upgrades and installations in support of the proposed light industrial, research and development, office, commercial and residential uses.</p>
<p>Policy LCC-1.7 Ensure that private development provides sufficient funding for infrastructure and public services to support the development.</p>	<p>Consistent. The proposed Project would provide all necessary infrastructure and utility improvements to support the proposed land uses. This would include use of private financing along with use of a community facilities district or similar funding mechanism.</p>
<p>Action LCC-1.E Require fiscal impact analyses, as appropriate, for development proposals in order to evaluate public facility needs and costs, and the revenue likely to be generated by that development.</p>	<p>Consistent. The proposed Project includes a Public Facilities Finance Plan that addresses fiscal costs related to provision of needed public facilities, along with identification of potential funding sources for the public facilities, including use of community facilities district or similar mechanisms.</p>
<p>Action LCC-1.F Continue to use Community Facility Districts and other financing tools to fund and maintain public facility improvements.</p>	<p>Consistent. If approved, the residential component of the project would be required to annex into a new citywide Community Facility Districts to cover the shortfall in city services required for residential uses, as established by the nexus study.</p>
<p>Policy LCC-2.1 Maintain the “small town character” of Dixon while allowing for population growth and business as well as increased employment, shopping, cultural and recreational opportunities, and other tax revenue generating uses.</p>	<p>Consistent. The project allows for “small town character” with a mix of land uses that includes jobs creation (the Tech Campus and commercial site) with residential and neighborhood parks, interconnected by internal roadways and pedestrian paseos.</p>

<i>GENERAL PLAN POLICY/ACTION</i>	<i>PROJECT CONSISTENCY</i>
<p>Policy LCC-2.2 Encourage compatible new development that respects and complements Dixon’s historic context and natural environment.</p>	<p>Consistent. The proposed Project would include low scale, residential, and research and development/tech. Through the City’s design review process, development that is compatible and respects and complements historic context and natural environment will be reviewed.</p>
<p>Policy LCC-2.3 Recognize that a diversity of architectural styles contributes to Dixon’s charm and promote a variety of building styles and types consistent with the community’s small-town feel.</p>	<p>Consistent. The NEQSP amendments include detailed design provisions for the proposed DOC, commercial and residential uses. Varying residential designs would be utilized based on the type of housing. Quality design would also be required for development of DOC buildings. Design review will be required that will also allow for consideration of DOC/residential development transitions. Landscape plans will be required, consistent with landscape design provisions of the NEQSP.</p>
<p>Policy LCC-2.4 Require new development in mixed use areas and along corridors provide appropriate transitions in building height and massing so that it is sensitive to the physical and visual character of adjoining lower-density neighborhoods.</p>	<p>Consistent. As noted above, the NEQSP amendments include detailed design provisions for the proposed DOC, commercial and residential uses. Varying residential designs would be utilized based on the type of housing. Quality design would also be required for development of DOC buildings. Design review will be required that will also allow for consideration of DOC/residential development transitions. Landscape plans will be required, consistent with landscape design provisions of the NEQSP.</p>
<p>Policy LCC-2.5 Use the design review guidelines in the design review process to assess how built characteristics, including scale, materials, hardscape, lights, and landscaping, blend into the surrounding neighborhood.</p>	<p>Consistent. As noted above, the NEQSP amendments include detailed design provisions for the proposed DOC, commercial and residential uses. Varying residential designs would be utilized based on the type of housing. Quality design would also be required for development of DOC buildings. Design review will be required that will also allow for consideration of DOC/residential development transitions. Landscape plans will be required, consistent with landscape design provisions of the NEQSP.</p>
<p>Policy LCC-2.6 Encourage the design of projects that enhance public safety and discourage crime by orienting homes and buildings toward the street, providing adequate lighting and sight lines, and selectively installing fencing and landscaping. (Refer also to Policy LCC-4.4 regarding activation of ground floor uses downtown and encouraging opportunities for outdoor dining including areas to the side and rear of existing establishments.)</p>	<p>Consistent. Project design, including site plan and elevations, will be reviewed by the Dixon Police Department</p>
<p>Policy LCC-2.8 Protect and improve scenic vistas in Dixon, including views from Interstate 80 and views of surrounding agricultural and open space lands.</p>	<p>Consistent. The scale of development within the project would be low scale and would include adequate landscape buffers and screening in order to alleviate impacts to views from I-80 and preserve views of the agricultural lands to the greatest extent.</p>

3.11 LAND USE

<i>GENERAL PLAN POLICY/ACTION</i>	<i>PROJECT CONSISTENCY</i>
<p>Policy LCC-3.3 Require cultural resource assessments prior to the approval of development proposals on properties located in archaeologically sensitive areas. Assessments shall include a records search of the California Historical Resources Information System database at the Northwest Information Park and a pedestrian survey of the site to determine the potential for archaeological, paleontological, and historic resources as well as Native American remains.</p>	<p>Consistent. A Cultural Resources Assessment was completed for the project and is addressed in the Draft EIR, and mitigation measures incorporated to address potentially significant impacts to cultural resources. See Section 3.5, Cultural and Tribal Resources.</p>
<p>Policy LCC-5.4 Grow the base of industrial and commercial employers in the Northeast Quadrant, and highway adjacent areas of the Southwest Dixon Specific Plan area, focusing uses that have common needs in this area to capitalize on synergies and minimize conflicts with other uses.</p>	<p>Consistent. The proposed Project includes proposed light industrial, warehouse, research and development, office and related uses as part of the DOC area. A two-acre commercial Park is also included as part of the DOC. This will support creation of a wide range of jobs and generation of tax revenue to the City, consistent with these policies.</p>
<p>Policy LCC-5.5 Foster a mixed use employment district in the Northeast Quadrant, leveraging the availability of large parcels and the proximity to UC Davis.</p>	<p>Consistent. As noted above, the proposed Project includes proposed light industrial, warehouse, research and development, office and related uses as part of the DOC area. A two-acre commercial Park is also included as part of the DOC. This will support creation of a wide range of jobs and generation of tax revenue to the City, consistent with these policies.</p>
<p>Policy LCC-5.6 In the Campus Mixed Use land use designation shown on Figure LCC-4, permit warehouse and distribution uses subject to a development agreement establishing a financial mechanism to provide for ongoing revenue generation to the City from those uses and environmental review, which may include additional mitigation measures, to ensure there are no new or substantially more severe impacts than identified in the 2040 General Plan EIR.</p>	<p>Consistent. As noted above, the proposed Project includes proposed light industrial, warehouse, research and development, office and related uses as part of the DOC area. A two-acre commercial Park is also included as part of the DOC. This will support creation of a wide range of jobs and generation of tax revenue to the City, consistent with these policies.</p>
<p>Policy LCC-5.7 Require industrial and commercial development to incorporate buffering and context-responsive transitions to minimize impacts on adjacent less intensive uses, particularly residential uses.</p>	<p>Consistent. The NEQSP amendments include detailed design provisions for the proposed DOC, commercial and residential uses. Quality design and site planning would also be required for development of DOC buildings. Design review will be required that will also allow for consideration of DOC/residential development transitions. Landscape plans will be required, consistent with landscape design provisions of the NEQSP.</p>
<p>Policy LCC-5.8 Require that non-residential buildings in commercial and industrial areas are designed as high-quality, long-term additions to the city's urban fabric. Exterior design and buildings shall exhibit permanence and quality, minimize maintenance concerns, and extend the life of the building.</p>	<p>Consistent. As noted above, the NEQSP amendments include detailed design provisions for the proposed DOC, commercial and residential uses. Quality design and site planning would also be required for development of DOC buildings. Design review will be required that will also allow for consideration of DOC/residential development transitions. Landscape plans will be required, consistent with landscape design provisions of the NEQSP.</p>

<i>GENERAL PLAN POLICY/ACTION</i>	<i>PROJECT CONSISTENCY</i>
<p>Policy LCC-6.1 Promote the development of compact, complete residential neighborhoods by encouraging the location of services and amenities within walking and biking distance of residences so as to foster opportunities for social interaction and reduce the need to travel by car.</p>	<p>Consistent. Residential villages of the proposed Project would include a mix of housing types as part of distinct residential neighborhoods. Each of these neighborhoods would be connected to the commercial and parks via internal roadways and bicycle/pedestrian paseos.</p>
<p>Policy LCC-6.2 Encourage an integrated mix of housing types and sizes within residential neighborhoods to promote opportunities for people at all stages of life to live in Dixon.</p>	<p>Consistent. The proposed Project includes a range of housing styles, sizes and densities for development of single-family detached, attached, and apartment units, supporting a wide range of housing opportunities for Dixon residents.</p>
<p>Policy LCC-6.3 Provide and maintain livable residential neighborhoods by reducing noise and air pollution, discouraging pass-through traffic, minimizing traffic accidents, and promoting lower speeds.</p>	<p>Consistent. The proposed Project design will minimize through-traffic with design of Professional Drive, the Vaughn Road railroad bypass, and carefully planned and located connections to Pedrick Road. The interior roadway plan includes use of several street roundabouts to slow traffic flows. Impacts associated with noise, air pollution, and traffic are discussed in Sections 3.12, 3.3, and 3.15, respectively, of this Draft EIR. It is noted that all noise impacts were determined to be less-than-significant or less-than-significant with mitigation.</p>
<p>Policy LCC-6.5 Encourage new development to incorporate greenery, including climate appropriate trees and plants as well as rain gardens, and as new development occurs, acquire easements or development rights for open space, planting street trees, and landscaping adjacent to public rights-of-way.</p>	<p>Consistent. Street trees and other landscaping improvements are proposed as part of the project design for interior roadways, parks and paseos.</p>
<p>Policy LCC-6.6 Ensure that multi-family residential developments include common open space and that buildings, entries and outdoor spaces are designed and arranged so that each development has a clear relationship to a public street.</p>	<p>Consistent. Amendments to NEQSP address design standards for the proposed multi-family (apartment) units, including provision of outdoor open spaces, building design and site planning.</p>
<p>Policy LCC-7.3 Ensure all neighborhood commercial Parks provide centrally located common spaces for regular events, festivals and informal gatherings that build a sense of community. Encourage public amenities such as benches, street trees, kiosks, restrooms and public art.</p>	<p>Consistent. Parks and paseos will include use of benches and street trees, and the neighborhood parks will include construction of restrooms.</p>
<p>Policy LCC-7.4 Enhance links between the neighborhood Parks and surrounding residential neighborhoods by providing walkable and bikeable connections that are separated from fast or heavy traffic where possible.</p>	<p>Consistent. The proposed Project is designed to provide interconnectivity between the residential villages, commercial Park and the DOC employment areas with use of sidewalks, paseos, bicycle lanes and interior roadways.</p>

3.11 LAND USE

<i>GENERAL PLAN POLICY/ACTION</i>	<i>PROJECT CONSISTENCY</i>
<i>ECONOMIC DEVELOPMENT ELEMENT</i>	
Policy E-1.2 Maintain a mix of land uses that allows the opportunity for a balance of retail, commercial/industrial, and residential development within the City of Dixon	Consistent. New, permanent jobs would be focused on the DOC lands (warehousing, light industrial, some office, etc.), and jobs related to retail commercial uses. The project would also generate short-term jobs related to infrastructure installation and building construction as the project builds out over several years.
Policy E-1.5 Coordinate economic development activities with infrastructure planning efforts to ensure that to the extent possible, appropriately sized utilities are available to support development of the most feasible, top-priority opportunity sites.	Consistent. The proposed Project design is based on detailed analyses of infrastructure needs to serve the project and NEQSP (for roadways, water, wastewater and stormwater drainage), supporting the planned mixed use development and creation of new jobs.
Action E-1.C Maintain extension of infrastructure to NE Quadrant as a top tier economic development priority. Identify funding sources, and continue partnerships with state and federal government as well as with private sector partners.	Consistent. The proposed Project design is based on detailed analyses of infrastructure needs to serve the project and NEQSP (for roadways, water, wastewater and stormwater drainage), supporting the planned mixed use development and creation of new jobs.
Action E-1.D Develop and implement design standards for business/industrial parks to establish appropriate parameters for lot size and coverage, building heights and setbacks, parking, landscaping, truck docks, loading and service areas, signage and fencing, and screening.	Consistent. The proposed Project design and NEQSP development standards address the DOC and commercial area development, including parking and loading, building heights and setback requirements, landscaping, outdoor storage and screening.
Policy E-2.4 Grow the residential base in Dixon to support a vibrant local retail sector and minimize retail sales leakage.	Consistent. The project proposes development of up to 1,041 new residential units as part of the mixed use development, and includes a 2-acre commercial area to help meet retail shopping needs of proposed Project residents.
Policy E-3.2 Actively recruit new businesses to build on existing industry concentrations in Dixon, including businesses in the following sectors: manufacturing, logistics, food processing, biotechnology, and agricultural technology.	Consistent. The DOC site would serve to attract light industrial, research and development and related uses to the planned DOC.
<i>MOBILITY ELEMENT</i>	
Policy M-1.1 Maintain a transportation network that is efficient and safe, that removes barriers (e.g. accessibility near freeways and rail lines), and that optimizes travel by all modes.	<p>Consistent. The proposed Project will provide a range of improvements to City streets, as well as construction of roadways internal to the project to provide needed vehicular, bicycle and pedestrian access. This will include widening of Pedrick Road, and extension of Professional Drive through the site. A traffic impact study was completed to fully address how the project may impact local roadways, and the project EIR identifies mitigation measures to reduce the potential for any significant traffic and circulation impacts.</p> <p>Also, as defined in the proposed amendment to the NEQSP, the planned Vaughn Road cut-off at the southern end of the Project site is proposed as “Commercial Drive” as defined in the original NEQSP. This would allow traffic to travel from Professional Drive to Pedrick Road, and for the termination of Vaughn Road and eliminating the Vaughn Road Railroad crossing.</p>

<i>GENERAL PLAN POLICY/ACTION</i>	<i>PROJECT CONSISTENCY</i>
<p>Policy M-1.2 Maintain a hierarchy of streets that includes arterials, collectors, and local streets, balancing the needs of all users in a safe and appropriate manner, including youth, seniors, persons with disabilities, and low-income households.</p>	<p>Consistent. The proposed Project includes a hierarchy of interior roadways that provides access to the planned residential villages, as well as improvements to Pedrick Road, to ensure safe and convenient vehicular access. This also includes construction of bicycle lanes and pedestrian paseos for movements throughout the project.</p>
<p>Policy M-1.3 Design, construct, operate, and maintain city streets based on a “complete streets” concept that enables safe, comfortable, and attractive access and travel for pedestrians, bicyclists, motorists, and transit users of all ages and abilities.</p>	<p>Consistent. As noted above, the proposed Project includes a hierarchy of interior roadways that provides access to the planned residential villages, as well as improvements to Pedrick Road, to ensure safe and convenient vehicular access. This also includes construction of bicycle lanes and pedestrian paseos for movements throughout the Project site.</p>
<p>Policy M-1.5 Increase accessibility for and use of streets by pedestrians, bicyclists, and transit riders through appropriate roadway modifications and improvements.</p>	<p>Consistent. As noted above, the proposed Project includes a hierarchy of interior roadways that provides access to the planned residential villages, as well as improvements to Pedrick Road, to ensure safe and convenient vehicular access. This also includes construction of bicycle lanes and pedestrian paseos for movements throughout the Project site.</p>
<p>Policy M-1.6 Ensure that improvements to the transportation network support a land use pattern that connects the community, integrates neighborhoods, provides multi-modal access and facilitates travel among Dixon’s neighborhoods.</p>	<p>Consistent. As noted above, the proposed Project includes a hierarchy of interior roadways that provides access to the planned residential villages, as well as improvements to Pedrick Road, to ensure safe and convenient vehicular access. This also includes construction of bicycle lanes and pedestrian paseos for movements throughout the Project site.</p>
<p>Policy M-1.9 Require new residential development projects to implement best practices for street design, stormwater management and green infrastructure.</p>	<p>Consistent. Residential villages within the proposed Project include carefully planned street design, including use of several roundabouts at key intersections to slow traffic and improve vehicle, bicycle and pedestrian safety. Stormwater management includes use of bioswales and greenways, along with a 25-acre stormwater retention basin.</p>
<p>Action M-1.B Pursue funding for the construction of grade separated rail crossings at Parkway Boulevard and West "A" Street and a bypass route at Vaughn Road to increase connectivity across the rail tracks and promote safety.</p>	<p>Consistent. As defined in the proposed amendment to the NEQSP, the planned Vaughn Road cut-off at the southern end of the Project site is proposed as “Commercial Drive” as defined in the original NEQSP. This would allow traffic to travel from Professional Drive to Pedrick Road, and for the termination of Vaughn Road and eliminating the Vaughn Road Railroad crossing.</p>
<p>Policy M-2.1 Ensure that the street network functions for the automobile, yet is easily accessible, safe, and convenient for other modes of travel and for users of all ages, abilities, and income levels.</p>	<p>Consistent. Residential villages within the proposed Project include carefully planned street design, including use of several roundabouts at key intersections to slow traffic and improve vehicle, bicycle and pedestrian safety.</p>

3.11 LAND USE

<i>GENERAL PLAN POLICY/ACTION</i>	<i>PROJECT CONSISTENCY</i>
<p>Policy M-2.4 Maintain a minimum level of service of "D" citywide for planning purposes.</p>	<p>Consistent. As discussed in Section 3.15, Transportation, the Traffic Impact Analysis (TIA) conducted by Flecker and Associates, dated December 4, 2023, reviewed operations on the study road network illustrated in Figure 3.15-4 and proposed improvements to the study road network that would mitigate operational deficiencies to a level acceptable by city standards. This study examined traffic operations within the study road network for existing conditions, as well as projected scenarios for opening day (2025) and cumulatively by 2040. It assessed the performance of study intersections in terms of LOS and queuing, with a focus on maintaining acceptable traffic flow as defined by the City of Dixon's LOS thresholds. As noted previously, the analysis related to intersection LOS is not applicable for CEQA analysis but will otherwise be used to qualitatively describe the impact of the project on the study road network to assess concerns raised by the County on incompatible land use and impacts to facilities that support agriculture.</p> <p>TIA findings indicate that most study intersections are expected to meet the City of Dixon's acceptable LOS thresholds by 2025, with the Pedrick Road at I-80 Eastbound Ramps/Sparling Lane requiring signalization.</p>
<p>Policy M-2.5 Improve east-west circulation in Dixon, with a particular focus on A Street, First Street and Pedrick Road grade crossings of the rail line.</p>	<p>Consistent. As defined in the proposed amendment to the NEQSP, the planned Vaughn Road cut-off at the southern end of the Project site is proposed as "Commercial Drive" as defined in the original NEQSP. This would allow traffic to travel from Professional Drive to Pedrick Road, and for the termination of Vaughn Road and eliminating the Vaughn Road Railroad crossing.</p>
<p>Policy M-2.8 Require traffic studies for new development to include analysis of intersections, roadway segments, and alternative modes of transportation and facilities that may be affected by development proposals.</p>	<p>Consistent. As noted previously, a TIA was completed for the Project. The TIA includes analysis of intersections, roadway segments, and alternative modes of transportation and facilities that may be affected by development proposals.</p>
<p>Policy M-2.9 Recognize uncongested access to the freeway from employment areas in the north of the city as a competitive advantage for Dixon and prioritize improvements accordingly.</p>	<p>Consistent. The Project would provide employment near the freeway.</p>
<p>Policy M-2.10 Ensure adequate emergency vehicle access in all areas of Dixon by continuing to involve the Police and Fire Departments in the development review process.</p>	<p>Consistent. The Police and Fire Departments have reviewed the project and will continue to review the project as the application evolves.</p>
<p>Action M-2.C Secure additional funding necessary to complete transportation improvement projects designed to improve east-west connections in Dixon including the Parkway Boulevard Overcrossing, Vaughn Road realignment, the West "A" Street undercrossing, and redesignation of SR-113.</p>	<p>Consistent. As defined in the proposed amendment to the NEQSP, the planned Vaughn Road cut-off at the southern end of the Project site is proposed as "Commercial Drive" as defined in the original NEQSP. This would allow traffic to travel from Professional Drive to Pedrick Road, and for the termination of Vaughn Road and eliminating the Vaughn Road Railroad crossing.</p>

<i>GENERAL PLAN POLICY/ACTION</i>	<i>PROJECT CONSISTENCY</i>
<p>Policy M-3.1 Enhance pedestrian, bicycle and transit connections to, from and between parks, community Parks, neighborhoods, recreation facilities, libraries, schools, commercial Parks and other community destinations in Dixon for all users.</p>	<p>Consistent. The proposed Project includes a hierarchy of interior roadways that provides access to and connectivity between the planned residential villages, commercial site and the DOC. This also includes construction of bicycle lanes and pedestrian paseos for movements throughout the Project site, and connections to Vaughn Road (via Professional Drive) and Pedrick Road.</p>
<p>Policy M-3.2 Ensure that new development provides physical connections to surrounding neighborhoods.</p>	<p>Consistent. As noted above, the proposed Project includes a hierarchy of interior roadways that provides access to and connectivity between the planned residential villages, commercial site and the DOC. This also includes construction of bicycle lanes and pedestrian paseos for movements throughout the Project site, and connections to Vaughn Road (via Professional Drive) and Pedrick Road.</p>
<p>Policy M-4.3 Increase bicycle ridership for work, errands and leisure trips.</p>	<p>Consistent. The proposed Project includes construction of bicycle lanes and pedestrian paseos for convenient non-vehicular movement throughout the Project site.</p>
<p>Policy M-4.5 Encourage pedestrian-friendly design features in new development such as sidewalks, street trees, on-street parking, gathering spaces, gardens, outdoor furniture, art and interesting architectural details.</p>	<p>Consistent. Extensive sidewalks, parks and paseos are included as part of the proposed Project design, incorporating use of street trees, green spaces, benches and similar features.</p>
<p>Policy M-4.6 Enhance the existing bicycle/pedestrian network by adding planting pockets with street trees to provide shade, calm traffic and enhance the pedestrian realm, prioritizing routes that link destinations such as employment Parks, commercial Parks, schools and downtown Dixon.</p>	<p>Consistent. The proposed Project includes construction of bicycle lanes and pedestrian paseos for convenient non-vehicular movement throughout the Project site.</p>
<p>Policy M-4.7 Continue to implement traffic calming measures to slow traffic on local and collector residential streets, and contribute to the safety of non-motorized road users.</p>	<p>Consistent. Residential villages within the proposed Project include carefully planned street design, including use of several roundabouts at key intersections to slow traffic and improve vehicle, bicycle and pedestrian safety.</p>
<p>Policy M-4.8 Require new or redesigned parking lots to optimize pedestrian and bicycle safety and provide green infrastructure for aesthetic and stormwater management purposes.</p>	<p>Consistent. All future parking lots would be designed consistent with this policy.</p>
<p>Action M-6.C Monitor the rail crossing at Pedrick Road, particularly during the harvest months, and identify actions needed to ensure safe and efficient truck crossings at this location.</p>	<p>Consistent. As defined in the proposed amendment to the NEQSP, the planned Vaughn Road cut-off at the southern end of the Project site is proposed as “Commercial Drive” as defined in the original NEQSP. This would allow traffic to travel from Professional Drive to Pedrick Road, and for the termination of Vaughn Road and eliminating the Vaughn Road Railroad crossing.</p>

3.11 LAND USE

GENERAL PLAN POLICY/ACTION	PROJECT CONSISTENCY
<i>PUBLIC SERVICES ELEMENT</i>	
<p>Policy PSF-1.1 Provide responsive, efficient, and effective police services that promote a high level of public safety.</p>	<p>Consistent. The project would require provision of Dixon Fire and Police services, and would make fair-share funding contributions through payment of taxes to support these services. City Fire will require the project comply with Fire Safe Standards, including fire protection methods such as sprinklers, alarm systems, and extinguishers in light industrial and commercial buildings, along with vegetation management. Provision of Fire and Police services will also be addressed within the project EIR.</p>
<p>Policy PSF-1.2 Provide fire prevention and emergency response services that minimize fire risks and protect life and property.</p>	<p>Consistent. As noted above, the project would require provision of Dixon Fire and Police services, and would make fair-share funding contributions through payment of taxes to support these services. City Fire will require the project comply with Fire Safe Standards, including fire protection methods such as sprinklers, alarm systems, and extinguishers in light industrial and commercial buildings, along with vegetation management. Provision of Fire and Police services will also be addressed within the project EIR.</p>
<p>Policy PSF-1.3 Maintain police and fire equipment, facilities and staffing at levels that allow for effective service delivery.</p>	<p>Consistent. As noted above, the project would require provision of Dixon Fire and Police services, and would make fair-share funding contributions through payment of taxes to support these services. City Fire will require the project comply with Fire Safe Standards, including fire protection methods such as sprinklers, alarm systems, and extinguishers in light industrial and commercial buildings, along with vegetation management. Provision of Fire and Police services will also be addressed within the project EIR.</p>
<p>Policy PSF-1.5 Continue to require that new development make a fair share funding contribution to ensure the provision of adequate police and fire services.</p>	<p>Consistent. As noted in Section 3.13, Public Services and Recreation, the City collects impact fees from new development based upon projected impacts from the development. The City also reviews the adequacy of impact fees on an annual basis to ensure that the fee is commensurate with anticipated future facilities demands, assessed on a fair share basis for new development. Implementation of the Proposed Project would thus not require provision of new or physically altered facilities in order to maintain acceptable police service ratios and response times. Payment of the applicable impact fees by the project applicant and other revenues generated by the project would ensure that project impacts to police and fire services are less than significant.</p>
<p>Policy PSF-1.6 Continue to engage the Police and Fire departments in the development review process to ensure that projects are designed and operated in a manner that minimizes the potential for criminal activity and fire hazards and maximizes the potential for responsive police and fire services.</p>	<p>Consistent. As noted in Section 3.13, Public Services and Recreation, project impacts to police and fire services are less than significant.</p>

<i>GENERAL PLAN POLICY/ACTION</i>	<i>PROJECT CONSISTENCY</i>
<p>Policy PSF-1.9 Support construction of improvements that facilitate emergency access across the rail line, such as over-and underpasses at one or more strategic locations.</p>	<p>Consistent. As defined in the proposed amendment to the NEQSP, the planned Vaughn Road cut-off at the southern end of the Project site is proposed as “Commercial Drive” as defined in the original NEQSP. This would allow traffic to travel from Professional Drive to Pedrick Road, and for the termination of Vaughn Road and eliminating the Vaughn Road Railroad crossing, facilitating improved emergency services access to and from the Project site.</p>
<p>Policy PSF-2.2 Expand the City’s water supply system, including wells, pipelines and storage facilities, in order to meet future need as development occurs, particularly in the Northeast Quadrant and in Southwest Dixon.</p>	<p>Consistent. The proposed Project would provide needed infrastructure improvements for water and wastewater facilities, and for stormwater drainage. This would include new water delivery systems within the Project site, wastewater conveyance lines, and construction of a new 25-acre stormwater drainage basin south of the planned Vaughn Road realignment. Designs would be reviewed to ensure consistency with City standards.</p> <p>Domestic water service would be distributed throughout the NEQSP plan area and the Project site by new water lines located within the surrounding roadway system including Professional Drive, Campus Parkway, and the Commercial Drive realignment. A new municipal water well and future tank site are proposed on the north side of the Project site adjacent to Professional Drive. The municipal water well would be constructed with the initial phase of development. A Water Supply Assessment has been prepared for the project, and water supply impacts are addressed in Impact 3.14-5 of Section 3.14, Utilities and Services Systems, of the Draft EIR. This impact was determined to be less than significant.</p>
<p>Policy PSF-2.3 Improve the reliability of the City’s water system to meet future demand, including through the construction of additional wells and the identification of potential surface water supply sources or use of reclaimed water from the City Wastewater Treatment Facility.</p>	<p>Consistent. As noted above, the proposed Project would provide needed infrastructure improvements for water and wastewater facilities, and for stormwater drainage. This would include new water delivery systems within the Project site, wastewater conveyance lines, and construction of a new 25-acre stormwater drainage basin south of the planned Vaughn Road realignment. Designs would be reviewed to ensure consistency with City standards.</p> <p>Domestic water service would be distributed throughout the NEQSP plan area and the Project site by new water lines located within the surrounding roadway system including Professional Drive, Campus Parkway, and the Commercial Drive realignment. A new municipal water well and future tank site are proposed on the north side of the Project site adjacent to Professional Drive. The municipal water well would be constructed with the initial phase of development. A Water Supply Assessment has been prepared for the project, and water supply impacts are addressed in Impact 3.14-5 of Section 3.14, Utilities and Services Systems, of the Draft EIR. This impact was determined to be less than significant.</p>

3.11 LAND USE

<i>GENERAL PLAN POLICY/ACTION</i>	<i>PROJECT CONSISTENCY</i>
<p>Policy PSF-2.6 Provide wastewater collection and treatment services, ensuring that adequate capacity is available to serve existing and future need in the community and that effluent can be treated and disposed in accordance with RWQCB standards.</p>	<p>Consistent. The proposed NEQSP amendment includes modifications to the wastewater collection system. The Project site is included in the North First Street Assessment District (NFSAD) and was previously assessed for the sewer oversizing from Vaughn Road to Hall Park. Under the NFSAD, the Project site was allocated wastewater flows, and the proposed Project is anticipated to produce wastewater within the allocated capacity. A wastewater alignment to serve the development is located within Professional Drive, which runs from Vaughn Road to the site’s northern boundary. The existing sewer trunk line would convey sewer flows from Vaughn Road to the City’s Wastewater Treatment Plant south of the City.</p>
<p>Policy PSF-2.9 Require through development agreements that new development provide necessary storm drainage improvements and ensure that upstream stormwater generators fully address stormwater needs on their property.</p>	<p>Consistent. The proposed NEQSP amendment defines a conceptual solution for the NEQSP area that includes defining a stand-alone drainage solution for the proposed Project utilizing an onsite 25-acre area south of the Vaughn Road realignment for a new retention basin within the NEQSP plan area that would meet the specific needs of the proposed Project and allow the proposed Project to develop independent of the surrounding properties in the NEQSP area. A drainage channel in the northwest corner of the Project site, between I-80 and Professional Drive, would further accommodate onsite stormwater. Noted is that the City is working with multiple agencies in addressing possible improvements and stormwater drainage alternatives to the overall drainage basin.</p>
<p>Policy PSF-2.10 Ensure through the development review process that adequate public utilities and services are available to serve new development and ensure that new development pay its fair share of the costs of constructing new public utilities, providing public services, and upgrading existing facilities as needed to accommodate it.</p>	<p>Consistent. The proposed Project includes a Public Facilities Finance Plan that addresses fiscal costs related to provision of needed public facilities, along with identification of potential funding sources for the public facilities, including use of community facilities district or similar mechanisms.</p>
<p>Policy PSF-2.11 Encourage project designs that minimize drainage concentrations, minimize impervious coverage, utilize pervious paving materials, utilize low impact development (LID) strategies, and utilize Best Management Practices (BMPs) to reduce stormwater runoff.</p>	<p>Consistent. The proposed Project includes use of BMPs, extensive greenways, use of bioswales and similar features to reduce stormwater runoff.</p>
<p>Policy PSF-4.1 Expand the network of parks and public spaces and ensure they are equitably distributed throughout the city so that every Dixon resident can access a neighborhood park within one half mile of their home.</p>	<p>Consistent. The project design includes provision of parks, paseos and open space, including a 5-acre neighborhood park to be located towards the Park of the proposed residential neighborhoods, a 6-acre park/paseo element running from the residential neighborhoods north to the DOC, and a 2.3-acre park adjacent to the DOC.</p>
<p>Policy PSF-4.2 Maintain a standard of 5 acres of community and neighborhood recreational or park facility for each 1,000 Dixon residents, with a target of 1.2 acres of neighborhood park land and 3.8 acres of community park land per 1,000 residents.</p>	<p>Consistent. As noted above, the project design includes provision of parks, paseos and open space, including a 5-acre neighborhood park to be located near the proposed residential neighborhoods, a 6-acre park/paseo element running from the residential neighborhoods north to the Tech Campus, and a 2.3-acre park adjacent to the DOC.</p>

<i>GENERAL PLAN POLICY/ACTION</i>	<i>PROJECT CONSISTENCY</i>
<p>Policy PSF-4.3 Require that proponents of new development projects contribute to the acquisition and development of adequate parks and recreational facilities within the community, either through the dedication of park land or the payment of in-lieu fees.</p>	<p>Consistent. As noted above, the project design includes provision of parks, paseos and open space, including a 5-acre neighborhood park to be located near the proposed residential neighborhoods, a 6-acre park/paseo element running from the residential neighborhoods north to the DOC, and a 2.3-acre park adjacent to the Tech Campus.</p>
<i>HOUSING ELEMENT</i>	
<p>Policy 3.1 Maintain land use policies that allow residential growth consistent with the availability of adequate infrastructure and public services.</p>	<p>Consistent. Adequate infrastructure will be extended to the Project site to allow the proposed residential development within the project.</p>
<p>Policy 3.2 Support development of multifamily housing, particularly as part of mixed-use projects, through appropriate land use designations and zoning districts.</p>	<p>Consistent. The proposed Project includes development of up to 225 units of multi-family (apartments) as part of the proposed mixed use plan. The existing CAMU land use designation for the site allows for housing to provide developable residential land.</p>
<p>Policy 3.3 Encourage a variety of housing types, including both rental and ownership housing and new for-sale and rental housing units that will provide a choice of housing type, density, and cost.</p>	<p>Consistent. The proposed Project includes ownership and rental residential units, with a variety of design styles and housing unit sizes, providing a range of housing opportunities.</p>

SOURCE: CITY OF DIXON, 2023.

Overall, the proposed Project would have a **less-than-significant** impact relative to General Plan consistency.

CONSISTENCY WITH THE ZONING CODE

Title 18 of the City’s Municipal Code contains the Zoning Code. The Project site is currently zoned as PAO-PUD, CN-PUD, and ML-PUD. The project includes an application to rezone site to CAMU-PD consistent with the property’s current General Plan land use designation of CAMU. The City is concurrently processing a comprehensive update to its Zoning Ordinance and Zoning Map to align the Zoning with the recently updated General Plan. The comprehensive Zoning Ordinance update is currently in the adoption phase and to be considered for adoption by the City Council on April 2, 2024. The comprehensive Zoning Ordinance and Map update also had a separate environmental review to consider the update. If the City’s update precedes review and action on this project, the rezoning request included in this project would no longer be necessary.

Section 18.18 establishes processing, planned development content requirements, and standards for the PD district. The proposed PD would provide for the range of uses and development standards consistent with the project as described in Chapter 2.0 and would ensure that all applicable zoning requirements are met. With continued compliance with Chapter 18.18, the project would be consistent with the City’s Zoning Code and this impact would be **less than significant**.

CONCLUSION

Overall, the project as proposed, including amendment to the NEQSP and Zoning, would be consistent with the NEQSP, City of Dixon General Plan, and Zoning Code. Therefore, the project will have a *less-than-significant* impact.

MITIGATION MEASURES

None Required.

Impact 3.11-3: The proposed Project would not conflict with an applicable habitat conservation plan or natural community conservation plan. (Less than Significant with Mitigation)

As noted previously, the Solano HCP is currently in the draft stages and is not a final document or plan as of December 2023. If the Solano HCP becomes final prior to Project initiation, the Project proponent may apply for coverage under the Solano HCP.

The proposed Solano HCP establishes a framework for complying with State and Federal endangered species regulations while accommodating future urban growth, development of infrastructure, and ongoing operations and maintenance activities associated with flood control, irrigation facilities, and other public infrastructure undertaken by or under the permitting authority/control of the Plan Participants within Solano County.

The possibility exists that the Solano HCP will be adopted prior to development of the first phase of the project. If this were to occur prior to initiation of any ground disturbing activities for any phase of development associated with the Project, the Project could be in conflict with a habitat conservation plan. Therefore, the impact is *potentially significant*.

LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Potentially Significant.

MITIGATION MEASURES

Mitigation Measure 3.11-3: Implement Mitigation Measure 3.4-5.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Less than Significant.

Implementation of Mitigation Measure 3.11-3 requires that, should the Solano HCP be adopted prior to initiation of any ground disturbing activities for any phase of development associated with the Project, the Project shall be developed in accordance with the Solano HCP and the Programmatic Endangered Species Act Consultation issued by the U.S. Fish and Wildlife Service. Therefore, the

proposed Project would not conflict with a habitat conservation plan or natural community conservation plan.

CUMULATIVE IMPACTS

The cumulative setting for land use and planning impacts is the City of Dixon.

Impact 3.11-4: The proposed Project, in combination with cumulative development, would not conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted to avoid or mitigate an environmental effect. (Less than Significant)

Cumulative development in the City of Dixon would adhere to the development patterns, density, intensity, land use designations, and development standards outlined in the General Plan and Zoning Ordinance. If future proposed land uses are not consistent with the General Plan, there are two courses of action: 1) the uses are not allowed due to the inconsistency, or 2) the land uses are changed through an amendment to the General Plan to create consistency. Approval of a General Plan amendment would ensure that future cumulative development in the city would be substantially consistent with the Dixon General Plan land use requirements.

Cumulative land use impacts, such as the potential for conflicts with adjacent land uses and consistency with adopted plans and regulations, are typically site- and project-specific. Each cumulative project would be required to demonstrate consistency with applicable plans, including the City's General Plan. Therefore, cumulative development would not conflict with an applicable land use plan, policy, or regulation, and the cumulative impact would be *less than significant*.

MITIGATION MEASURES

None Required.

Impact 3.11-5: The proposed Project, in combination with cumulative development, would not conflict with an applicable habitat conservation plan or natural community conservation plan. (Less than Significant)

There is not currently an adopted habitat conservation plan or natural community conservation plan for lands in Solano County or the City of Dixon. Therefore, cumulative development would not conflict with such plans. However, there is potential that the Solano HCP could be adopted prior to some anticipated cumulative development. If adoption of the Solano HCP occurs, future cumulative projects would be required to comply with the policies and conservation strategies outlined in the Solano HCP. Therefore, cumulative development would not conflict with a habitat conservation plan or natural community conservation plan, and the cumulative impact would be *less than significant*.

MITIGATION MEASURES

None required.

This section provides a general description of the existing noise sources in the Project site, a discussion of the regulatory setting, and identifies potential noise impacts associated with new development in the City of Dixon. Project impacts are evaluated relative to applicable noise level criteria and to the existing ambient noise environment. Mitigation measures have been identified for potentially significant noise-related impacts.

A comment letter from Solano County noted that there may be a noise/nuisance conflict between adjacent existing agricultural and industrial uses and the proposed Project, and recommended development of a buffer to limit such impacts. Noise conflicts are addressed in this section. Conflicts between land use types are discussed in Section 3.11, Land Use.

3.12.1 ENVIRONMENTAL SETTING

KEY TERMS

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given area consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of noise.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, defined as ten times the logarithm of the ratio of the sound pressure squared over the reference pressure squared.
CNEL	Community noise equivalent level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic acoustic signal, expressed in cycles per second or Hertz.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.
L_(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L ₅₀ is the sound level exceeded 50 percent of the time during the one hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
Noise	Unwanted sound.
SEL	Sound exposure levels. A rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy into a one-second event.

FUNDAMENTALS OF ACOUSTICS

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound, and twice as loud as a 60-dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn} , and shows very good correlation with community response to noise.

The day/night average level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment. CNEL is similar to L_{dn} , but includes

a +5 dB penalty for evening noise. **Table 3.12-1** lists several examples of the noise levels associated with common situations.

TABLE 3.12-1: TYPICAL NOISE LEVELS

<i>COMMON OUTDOOR ACTIVITIES</i>	<i>NOISE LEVEL (dBA)</i>	<i>COMMON INDOOR ACTIVITIES</i>
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft)	--100--	
Gas Lawn Mower at 1 m (3 ft)	--90--	
Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)	--80--	Food Blender at 1 m (3 ft) Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft)	--70--	Vacuum Cleaner at 3 m (10 ft)
Commercial Area Heavy Traffic at 90 m (300 ft)	--60--	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

SOURCE: CALTRANS, TECHNICAL NOISE SUPPLEMENT, TRAFFIC NOISE ANALYSIS PROTOCOL. SEPTEMBER 2013.

EFFECTS OF NOISE ON PEOPLE

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction;
- Interference with activities such as speech, sleep, and learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual’s past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a 1-dBA change cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;

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- A change in level of at least 5-dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6 dB per doubling of distance from the source, depending on environmental conditions (i.e., atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING NOISE LEVELS

Existing and Surrounding Land Uses

Some land uses are considered more sensitive to noise than others. Land uses often associated with sensitive receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Sensitive noise receptors may also include threatened or endangered noise-sensitive biological species, although many jurisdictions have not adopted noise standards for wildlife areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise.

Sensitivity is a function of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities involved. In the vicinity of the project site, sensitive land uses include existing single-family residential uses to the south of the project site.

The Campbell's Soup Supply Company is an industrial use immediately east of the Project site along Pedrick Road. The facility operates seasonally, with the largest volume of products being manufactured during the tomato harvesting season, approximately June through October. During that time, the industrial plant machinery operates, and haul trucks and shipping trucks access the plant continuously. These operations create noise that is noticeable from the Project site.

The UPRR railroad tracks are adjacent to the southeast tip of the Project site, and runs southwest to northeast intersecting both Pedrick Road and Vaughn Road by the Project site. Trains regularly use warning horns at crossings, resulting in sporadic loud noises in the area, including noise audible on the Project site.

Existing Ambient Noise Levels

To quantify the existing ambient noise environment in the project vicinity, Saxelby Acoustics conducted continuous (24-hr.) noise level measurements at four locations on the project site and a short-term noise level measurement at one location. Noise measurement locations are shown on **Figure 3.12-1**. A summary of the noise level measurement survey results is provided in **Table 3.12-2**. **Appendix F** contains the complete results of the noise monitoring.

The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value, denoted L_{max} , represents the highest noise level measured. The average value, denoted L_{eq} , represents the energy average of all of the noise received by the sound level meter microphone during the monitoring period. The median value,

denoted L_{50} , represents the sound level exceeded 50 percent of the time during the monitoring period.

Larson Davis Laboratories (LDL) model 820 and 831 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with a CAL 200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

TABLE 3.12-2: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

SITE	LOCATION	DATE/TIME	L_{DN}	AVERAGE MEASURED HOURLY NOISE LEVELS, dB					
				DAYTIME (7AM-10PM)			NIGHTTIME (10PM-7AM)		
				L_{EQ}	L_{50}	L_{MAX}	L_{EQ}	L_{50}	L_{MAX}
<i>CONTINUOUS (24-HOUR) NOISE LEVEL MEASUREMENTS</i>									
LT-1	200 ft. east of adjacent loading docks	11/29/2023	62	55	52	70	56	53	69
		11/30/2023	61	54	48	70	55	52	73
LT-2	55 ft. west of Pedrick Rd. centerline	11/29/2023	70	67	60	84	63	54	80
		11/30/2023	69	67	58	84	62	54	81
LT-3	120 ft. northeast of UPRR centerline	11/29/2023	77	71	56	100	71	51	87
		11/30/2023	81	73	53	98	76	50	92
ST-1	200 ft. to adjacent industrial use	11/28/2023	N/A	69	60	82	N/A	N/A	N/A

SOURCE: SAXELBY ACOUSTICS, 2023.

The sound level meters were programmed to collect hourly noise level intervals at each site during the survey. The maximum value (L_{max}) represents the highest noise level measured during an interval. The average value (L_{eq}) represents the energy average of all of the noise measured during an interval. The median value (L_{50}) represents the sound level exceeded 50 percent of the time during an interval.

Existing Traffic Noise Environment at Sensitive Receptors

METHODOLOGY

To predict existing noise levels due to traffic, the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD77108) was used. The model is based upon the Calveno reference noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. Traffic volumes for existing conditions were obtained from the traffic data prepared for the Project. Truck percentages and vehicle speeds on the local area roadways were estimated from field observations.

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Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each Project-area roadway segment. Where traffic noise barriers, such as a proposed sound wall, are predominately located along a roadway segment, a -5 dB offset was added to the noise prediction model to account for various noise barrier heights. A -5 dB offset was also applied where outdoor activity areas are shielded by intervening buildings. In some locations, sensitive receptors may be located at distances which vary from the assumed calculation distance and may experience shielding from intervening barriers or sound walls. However, the traffic noise analysis is believed to be representative of the majority of sensitive receptors located closest to the Project-area roadway segments analyzed in the Environmental Noise Assessment (**Appendix F**).

OFF-SITE TRAFFIC NOISE

Table 3.12-3 and **Table 3.12-4** summarize the modeled traffic noise levels at the nearest sensitive receptors along each roadway segment in the Project area. Appendix F provides the complete inputs and results of the FHWA traffic modeling.

TABLE 3.12-3: PREDICTED TRAFFIC NOISE LEVEL AND PROJECT-RELATED TRAFFIC NOISE LEVEL INCREASES (DB)

<i>ROADWAY</i>	<i>SEGMENT</i>	<i>EXISTING NO PROJECT</i>	<i>EXISTING + PROJECT</i>	<i>CHANGE</i>
Sievers Road	West of Pedrick Road	50.2	49.6	-0.6
Dorset Drive	West of N. 1 st St	45.2	45.4	0.2
N. 1 st Street	Between Dorset Dr. and Vaughn Rd.	53.6	53.8	0.2
Vaughn Road	West of N. 1 st St	51.9	51.3	-0.6
N. 1 st Street	South of Vaughn Road	55.7	55.8	0.1
Vaughn Road	Between N. 1 st St. and Pedrick Rd.	43.8	44.4	0.6

TABLE 3.12-4: CUMULATIVE TRAFFIC NOISE LEVEL AND PROJECT-RELATED TRAFFIC NOISE LEVEL INCREASES (dB)

ROADWAY	SEGMENT	CUMULATIVE NO PROJECT	CUMULATIVE + PROJECT	CHANGE
Sievers Road	West of Pedrick Road	50.7	51.0	0.3
Sievers Road	West of Pedrick Road	45.4	45.4	0.0
Dorset Drive	West of N. 1 st St	54.2	54.3	0.1
N. 1 st Street	Between Dorset Dr. and Vaughn Rd.	51.6	52.0	0.4
Vaughn Road	West of N. 1 st St	56.4	56.7	0.3
N. 1 st Street	South of Vaughn Road	41.3	43.2	1.9

Based upon Tables 3.12-3 and 3.12-4 data, the proposed Project is predicted to result in an increase in a maximum traffic noise level of 1.9 dBA.

3.12.2 REGULATORY SETTING

STATE

California Environmental Quality Act

The California Environmental Quality Act (CEQA) Guidelines, Appendix G, includes questions that indicate that a significant noise impact may occur if a project exposes persons to noise or vibration levels in excess of local general plans or noise ordinance standards, or cause a substantial permanent or temporary increase in ambient noise levels. CEQA case law also addresses noise impacts. (See *King & Gardiner Farms, LLC v. County of Kern* (2020) 45 Cal.App.5th 814, 883-894.) CEQA standards are discussed more below under the Thresholds of Significance section.

Governor's Office of Planning and Research

The State of California General Plan Guidelines, published by the Office of Planning and Research (OPR), provides guidance for the acceptability of projects within specific CNEL or L_{dn} contours. The guidelines also present adjustment factors that may be used in order to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

State Building Code, Title 24, Part 2 of the State of California Code of Regulations

The State Building Code, Title 24, Part 2 of the State of California Code of Regulations, establishes uniform minimum noise insulation performance standards to protect persons within new buildings

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which house people, including hotels, motels, dormitories, apartment houses, and dwellings other than single-family dwellings. Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB L_{dn} or CNEL in any habitable room. Title 24 also mandates that for structures containing noise-sensitive uses to be located where the L_{dn} or CNEL exceeds 60 dB, an acoustical analysis must be prepared to identify mechanisms for limiting exterior noise to the prescribed allowable interior levels. If the interior allowable noise levels are met by requiring that windows be kept closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment.

LOCAL

City of Dixon Noise Policies

NE-5.19 Apply the General Plan noise and land use compatibility standards to all new residential, commercial, and mixed-use development and redevelopment, as shown in [Figure 3.12-2] [and whereby the following definitions apply:

Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirement. Outdoor areas are suitable for normal outdoor activities for this land use.

Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air-conditioning, will normally suffice.

Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable: New construction or development should generally not be undertaken.]

Considerations in determination of noise – compatible land use

A. Normalized Noise Exposure Information Desired

Where sufficient data exists, evaluate land use suitability with respect to a “normalized” value of CNEL or L_{dn} . Normalized values are obtained by adding or subtracting the constants described in [Figure 3.12-2] to the measured or calculated value of CNEL or L_{dn} .

B. Noise Source Characteristics

The land use-noise compatibility recommendations should be viewed in relation to the specific source of the noise. For example, aircraft and railroad noise is normally made up of higher single noise events than auto traffic but occurs less frequently. Therefore, different sources yielding the same composite noise exposure do not necessarily create the same noise environment. The State Aeronautics Act uses 65 dB CNEL as the criterion which airports must eventually meet to protect existing residential communities from unacceptable exposure to aircraft noise. In order to facilitate the purposes of the Act, one of which is to encourage land uses compatible with the 65 dB CNEL criterion wherever possible, and in order to facilitate the ability of airports to comply with the Act, residential

uses located in Community Noise Exposure Areas greater than 65 dB should be discouraged and considered located within normally unacceptable areas.

C. Suitable Interior Environments

One objective of locating residential units relative to a known noise source is to maintain a suitable interior noise environment at no greater than 45 dB CNEL of L_{dn} . This requirement, coupled with the measured or calculated noise reduction performance of the type of structure under consideration, should govern the minimum acceptable distance to a noise source.

D. Acceptable Outdoor Environments

Another consideration, which in some communities is an overriding factor, is the desire for an acceptable outdoor noise environment. When this is the case, more restrictive standards for land use compatibility, typically below the maximum considered “normally acceptable” for that land use category, may be appropriate

Notes:

1. *The Community Noise Equivalent Level (CNEL) and Day-Night Noise Level (L_{dn}) are measures of the 24-hour noise environment. They represent the constant A-weighted noise level that would be measured if all the sound energy received over the day was averaged. In order to account for the greater sensitivity of people to noise at night, the CNEL weighting includes a 5- decibel penalty on noise between 7:00 pm and 10:00 pm and a 10-decibel penalty on noise between 10:00 pm and 7:00 am of the next day. The L_{dn} includes only the 10-decibel weighting for late-night noise events. For practical purposes, the two measures are equivalent for typical urban noise environments.*

City of Dixon Municipal Code

18.28.030 – Noise Performance Standards

No land use shall generate sound exceeding the maximum levels permitted in the following table [Table 3.12-5] when such are measured in any of the zoning districts listed in this table:

TABLE 3.12-5: NOISE PERFORMANCE STANDARDS

<i>ZONING DISTRICT</i>	<i>MAXIMUM SOUND PRESSURE LEVEL IN DECIBELS</i>
Residential and Medical Districts	55 dB
Multifamily Residential Districts	60 dB
“C” Districts	70 dB
“M” Districts	75 dB

18.28.040 Noise performance standards – Correction factors.

The following correction factors [shown in Table 3.12-6], when applicable, shall be applied to the maximum sound pressure levels given in DMC 18.28.030:

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TABLE 3.12-6: NOISE PERFORMANCE STANDARDS – CORRECTION FACTORS

<i>TIME AND OPERATION OF TYPE OF NOISE</i>	<i>CORRECTION IN MAXIMUM PERMITTED DECIBELS</i>
Emission only between 7 a.m. and 10 p.m.	Plus 5
Noise of unusual impulsive character such as hammering or drill pressing	Minus 5
Noise of unusual periodic character such as hammering or screeching	Minus 5

18.28.050 – Noise Performance Standards – Exceptions

The following sounds, upon compliance with stated conditions, may exceed the maximum sound pressure levels given in DMC 18.28.030:

- A. Time signals produced by places of employment or worship and school recess signals providing no one (1) sound exceeds five (5) seconds in duration and no one (1) series of sounds exceeds twenty-four (24) seconds in duration;
- B. Devotional and patriotic music of worship, provided such music is emitted only between the hours of 7:00 a.m. and 10:00 p.m.;
- C. Sounds from transportation equipment used exclusively in the movement of goods and people to and from a given premises, temporary construction or demolition work; and
- D. Sounds made in the interests of public safety. [Ord. 13-008 § 2; Ord. 13-009 § 2(1).]

The City exempts temporary construction noise through the implementation of Dixon Municipal Code Section 18.28.050.C. Noise from construction equipment or activities such as grading, trenching, preparing building foundations, building erection, or other similar construction-related noise emitting activities would not be subject to noise performance thresholds set forth elsewhere in the City’s Municipal Code.

VIBRATION STANDARDS

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person’s perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

The City of Dixon does not have specific policies pertaining to vibration levels, although City Municipal Code Section 18.28.080 states, “No use shall be operated in a manner which produces vibrations discernible without instruments at any point on the property line of the lot on which the use is located. [Ord. 13-008 § 2; Ord. 13-009 § 2(1).]” Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source

and receptor, duration, and the number of perceived vibration events. **Table 3.12-7** indicates that the threshold for damage to structures ranges from 0.2 to 0.6 peak particle velocity in inches per second (in/sec p.p.v). A threshold of 0.20 in/sec p.p.v. is considered to be a reasonable threshold for short-term construction projects.

TABLE 3.12-7: EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS

PEAK PARTICLE VELOCITY		HUMAN REACTION	EFFECT ON BUILDINGS
MM/SEC.	IN./SEC.		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of “architectural” damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of “architectural” damage to normal dwelling – houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize “architectural” damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause “architectural” damage and possibly minor structural damage.

SOURCE: CALTRANS. TRANSPORTATION RELATED EARTHBOEN VIBRATIONS. TAV-02-01-R9601 FEBRUARY 20, 2002.

3.12.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Appendix G of the CEQA Guidelines states that a project would normally be considered to result in significant noise impacts if noise levels conflict with adopted environmental standards or plans or if noise generated by the project would substantially increase existing noise levels at sensitive receivers on a permanent or temporary basis. Significance criteria for noise impacts are drawn from CEQA Guidelines Appendix G.

Consistent with Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact on noise if it would:

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generate excessive groundborne vibration or groundborne noise levels; and/or
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use

airport, would the project expose people residing or working in the project area to excessive noise levels.

Determination of a Significant Increase in Noise Levels

IMPACTS DUE TO TEMPORARY CONSTRUCTION NOISE INCREASES

With temporary noise impacts (construction), identification of “substantial increases” depends upon the duration of the impact, the temporal daily nature of the impact, and the absolute change in decibel levels. Section 18.28.00 of the City of Dixon Municipal Code exempts construction noise.

The City has not adopted any formal standard for evaluating temporary construction noise or defined the allowable hours during which construction noise may be emitted. For short-term noise associated with Project construction, Saxelby Acoustics recommends use of the California Department of Transportation (Caltrans) increase criteria of 12 dBA,¹ applied to existing residential receptors in the Project vicinity. This level of increase is approximately equivalent to a doubling of sound energy and has been the standard of significance for Caltrans projects at the state level for many years. Application of this standard to construction activities is considered reasonable considering the temporary nature of construction activities.

IMPACTS DUE TO PERMANENT NOISE INCREASES

The California Environmental Quality Act (CEQA) guidelines define a significant impact of a project if it “increases substantially the ambient noise levels for adjoining areas.” Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local project criteria or ordinances, or substantially increase noise levels at noise sensitive land uses. The potential increase in traffic noise from the project is a factor in determining significance. Research into the human perception of changes in sound level indicates the following:

- A 3-dB change is barely perceptible,
- A 5-dB change is clearly perceptible, and
- A 10-dB change is perceived as being twice or half as loud.

A limitation of using a single noise level increase value to evaluate noise impacts is that it fails to account for pre-project noise conditions. **Table 3.12-8** is based upon recommendations made by the Federal Interagency Committee on Noise (FICON) to provide guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts,

¹ Caltrans. April 2020. Traffic Noise Protocol [Page 18].

it has been accepted that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the L_{dn} .

TABLE 13.12-8: SIGNIFICANCE OF CHANGES IN NOISE EXPOSURE

<i>AMBIENT NOISE LEVEL WITHOUT PROJECT, L_{DN}</i>	<i>INCREASE REQUIRED FOR SIGNIFICANT IMPACT</i>
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

SOURCE: FEDERAL INTERAGENCY COMMITTEE ON NOISE (FICON).

Based on the Table 3.12-8 data, an increase in the traffic noise level of 5 dB or more would be significant where the pre-project noise levels are less than 60 dB L_{dn} , or 3 dB or more where existing noise levels are between 60 to 65 dB L_{dn} . Extending this concept to higher noise levels, an increase in the traffic noise level of 1.5 dB or more may be significant where the pre-project traffic noise level exceeds 65 dB L_{dn} . The rationale for the Table 3.12-8 criteria is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause annoyance.

IMPACTS AND MITIGATION MEASURES

Impact 3.12-1: The proposed Project has the potential to generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Less than Significant)

TRAFFIC NOISE ENVIRONMENT AT OFF-SITE RECEPTORS WITH AND WITHOUT THE PROJECT

Implementation of the proposed Project would result in an increase in daily traffic volumes on the local roadway network, and consequently, an increase in noise levels from traffic sources along affected segments. **Table 3.12-9** shows the predicted traffic noise level increases on the local roadway network for Existing and Existing Plus Project conditions. **Table 3.12-10** shows the predicted traffic noise level increases on the local roadway network for the Cumulative No Project and Cumulative Plus Project conditions. Appendix F provides the complete inputs and results of the FHWA traffic noise modeling.

3.12 NOISE

TABLE 3.12-9: EXISTING AND EXISTING PLUS PROJECT TRAFFIC NOISE LEVELS

ROADWAY	SEGMENT	APPROX. RECEPTOR DISTANCE	NOISE LEVELS (L_{DN} , DB) AT NEAREST SENSITIVE RECEPTORS				
			EXISTING	EXISTING + PROJECT	CHANGE	CRITERIA	SIGNIFICANT?
Sievers Road	West of Pedrick Road	100	50.2	49.6	-0.6	+ 5.0 dB	No
Dorset Drive	West of N. 1 st St	160	45.2	45.4	0.2	+ 5.0 dB	No
N. 1 st Street	Between Dorset Dr. and Vaughn Rd.	380	53.6	53.8	0.2	+ 5.0 dB	No
Vaughn Road	West of N. 1 st St	80	51.9	51.3	-0.6	+ 5.0 dB	No
N. 1 st Street	South of Vaughn Road	530	55.7	55.8	0.1	+ 5.0 dB	No
Vaughn Road	Between N. 1 st St. and Pedrick Rd.	240	43.8	44.4	0.6	+ 5.0 dB	No

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM FLECKER ASSOCIATES AND SAXELBY ACOUSTICS, 2023.

TABLE 3.12-10: CUMULATIVE AND CUMULATIVE PLUS PROJECT TRAFFIC NOISE LEVELS

ROADWAY	SEGMENT	APPROX. RECEPTOR DISTANCE	NOISE LEVELS (L_{DN} , DB) AT NEAREST SENSITIVE RECEPTORS				
			CUMULATIVE	CUMULATIVE + PROJECT	CHANGE	CRITERIA	SIGNIFICANT?
Sievers Road	West of Pedrick Road	100	50.7	51.0	0.3	+ 5.0 dB	No
Dorset Drive	West of N. 1 st St	160	45.4	45.4	0.0	+ 5.0 dB	No
N. 1 st Street	Between Dorset Dr. and Vaughn Rd.	380	54.2	54.3	0.1	+ 5.0 dB	No
Vaughn Road	West of N. 1 st St	80	51.6	52.0	0.4	+ 5.0 dB	No
N. 1 st Street	South of Vaughn Road	530	56.4	56.7	0.3	+ 5.0 dB	No
Vaughn Road	Between N. 1 st St. and Pedrick Rd.	240	41.3	43.2	1.9	+ 5.0 dB	No

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM FLECKER ASSOCIATES AND SAXELBY ACOUSTICS, 2023.

The FICON guidelines specify criteria to determine the significance of traffic noise impacts. Where existing traffic noise levels are greater than 65 dBA L_{dn} , at the outdoor activity areas of noise-sensitive uses, a +1.5 dBA L_{dn} increase in roadway noise levels will be considered significant. Where traffic noise levels are between 60 dBA L_{dn} and 65 dBA L_{dn} , a +3.0 dB L_{dn} increase in roadway noise levels will be considered significant. Where traffic noise levels are less than 60 dBA L_{dn} , a +5.0 dB L_{dn} increase in roadway noise levels will be considered significant.

According to Tables 3.12-10 and 3.12-11, the ambient noise environment in the Project vicinity as defined by the analyzed road segments does not exceed 60 dBA L_{dn} at the existing sensitive receptors. Therefore, the significance criterion for all segments is +5.0 dBA. As shown in the tables, the greatest increase due to traffic from the proposed Project is +3.0 dBA, which is less than the threshold of +5.0 dBA. Therefore, impacts resulting from increased traffic noise would be considered **less than significant**.

PROJECT-GENERATED NON-TRANSPORTATION NOISE ENVIRONMENT AT OFF-SITE RECEPTORS

The proposed Project would include typical residential noise such as people talking, noise associated with outdoor recreation activities, domesticated animals such as dogs, and landscape maintenance equipment such as mowers. These types of noises would be similar to and compatible with the types of noise created at the existing adjacent residential uses approximately 400 feet south of the Project site. Therefore, non-transportation noise created by the proposed Project would have a **less-than-significant** impact.

CONSTRUCTION NOISE

During the construction of the proposed Project, noise from construction activities would temporarily add to the noise environment in the Project vicinity. As shown in **Table 3.12-11**, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet. Construction activities would also be temporary in nature and are anticipated to occur during normal daytime working hours.

TABLE 3.12-11: CONSTRUCTION EQUIPMENT NOISE

<i>TYPE OF EQUIPMENT</i>	<i>MAXIMUM LEVEL, dB AT 50 FEET</i>
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

SOURCE: ROADWAY CONSTRUCTION NOISE MODEL USER'S GUIDE. FEDERAL HIGHWAY ADMINISTRATION. FHWA-HEP-05-054. JANUARY 2006.

Caltrans defines a significant increase in noise as 12 dBA over existing ambient noise levels; this criterion was used to evaluate increases due to construction noise associated with the Project. As shown in Table 3.12-11, construction equipment is predicted to generate noise levels of up to 90 dBA L_{max} at 50 feet. Construction noise is evaluated as occurring at the center of the site to represent average noise levels generated over the duration of construction across the Project site. The nearest residential uses are located approximately 400 feet to the south as measured from the center of the Project site. At this distance, maximum construction noise levels would be up to 72 dBA. The average daytime maximum noise level in the vicinity of the sensitive receptors was measured to be 86 to 88 dBA. Therefore, Project construction would not cause an increase of greater than 12 dBA over existing ambient noise levels.

Noise would also be generated during the construction phase by increased truck traffic on area roadways. A Project-generated noise source would be truck traffic associated with transport of

3.12 NOISE

heavy materials and equipment to and from the construction site. This noise increase would be of short duration and would occur during daytime hours.

Construction activities are temporary in nature and are likely to occur during normal daytime working hours between 7:00 a.m. and 7:00 p.m. Further, construction activities would comply with best management practices such as fitting construction equipment with manufacturer-recommended mufflers and maintaining construction equipment to assure that no additional noise, due to worn or improperly maintained parts, will be generated. The City exempts temporary construction noise through the implementation of Dixon Municipal Code Section 18.28.050.C. Noise from construction equipment or activities such as grading, trenching, preparing building foundations, building erection, or other similar construction-related noise emitting activities would not be subject to noise performance thresholds set forth elsewhere in the City's Municipal Code. Therefore, construction-related noise impacts would be *less than significant*.

TRANSPORTATION NOISE ON PROJECT SITE (NON-CEQA ISSUE)

Exterior Transportation Noise

Compliance with City's standards on new noise-sensitive receptors is not a CEQA consideration. However, this information is provided here so that a determination can be made regarding the ability of the proposed Project to meet the requirements of the City of Dixon for exterior and interior noise levels at new sensitive uses proposed under the project.

As shown on **Figure 3.12-3**, several of the proposed residential outdoor activity areas along Pedrick Road are predicted to be exposed to exterior transportation noise levels up to approximately 71 dBA L_{dn} if the site remained as-is, with no intervening shielding between Pedrick Road and the Project site. This noise level would be considered "normally unacceptable" for outdoor areas established by the City of Dixon.

However, the proposed Project includes the construction of an 8-foot tall barrier between Pedrick Road and the proposed residential units that back up to Pedrick Road. This barrier would be a total of 8-feet above the centerline height of Pedrick Road, made from a likely combination of a 6-foot block wall atop a 2-foot earthen berm or raised pad. Inclusion of this proposed soundwall would lower noise levels at all residential outdoor activity areas on the project site to 65 dBA L_{dn} or lower. **Figure 3.12-4** shows the sound wall and resulting noise level contours.

Interior Transportation Noise

Modern building construction methods typically yield an exterior-to-interior noise level reduction of 25 dBA.² Therefore, where exterior noise levels are 70 dBA L_{dn} , or less, no additional interior noise control measures are typically required. For this project, exterior noise levels are predicted to be up to 69 dBA L_{dn} at the second story of the buildings closest to Pedrick Road. This would result in interior noise levels of up to 44 dBA L_{dn} at the second story receivers based on typical building construction.

² Assuming standard construction with a minimum STC rating of 29 for exterior window assemblies

This meets the City of Dixon interior noise level standards which require that interior noise levels do not exceed 45 dB L_{dn} . Therefore, no additional noise control measures are required to reduce interior noise to acceptable levels.

NON-TRANSPORTATION NOISE ON PROJECT SITE (NON-CEQA ISSUE)

CEQA does not require the analysis of existing noise source impacts on proposed new sensitive receptors. However, this information is provided here so that a determination can be made regarding the ability of the proposed Project to meet the requirements of the City of Dixon for exterior and interior noise levels at new sensitive uses proposed under the project.

As shown on **Figure 3.12-5**, the proposed outdoor activity areas are predicted to be exposed to exterior non-transportation noise levels up to approximately 54 dBA L_{eq} . Sources of offsite, existing noise include the Campbell's Soup Supply Company, which emits noise particularly during the tomato processing season, generally June through October. Noises associated with this source include manufacturing machinery and haul trucks and shipping trucks access the plant continuously during the tomato processing season. Further, trains along the UPRR railroad tracks to the southeast of the Project site could be audible from the Project site. These non-transportation noise levels would comply with the 55 dBA L_{eq} noise level limits for outdoor areas established by the City of Dixon. Therefore, no additional noise control measures would be required.

MITIGATION MEASURE(S)

None required.

Impact 3.12-2: The proposed Project would not generate excessive groundborne vibration or groundborne noise levels. (Less than Significant)

Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural damage. The primary vibration-generating activities generated by the proposed Project would be grading, utilities placement, and parking lot construction. **Table 3.12-12** shows the typical vibration levels produced by construction equipment.

3.12 NOISE

TABLE 3.12-12: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

TYPE OF EQUIPMENT	P.P.V. AT 25 FEET (INCHES/SECOND)	P.P.V. AT 50 FEET (INCHES/SECOND)	P.P.V. AT 100 FEET (INCHES/SECOND)
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210 (Less than 0.20 at 26 feet)	0.074	0.026

SOURCE: TRANSIT NOISE AND VIBRATION IMPACT ASSESSMENT GUIDELINES. FEDERAL TRANSIT ADMINISTRATION. MAY 2006.

With the exception of vibratory compactors, the Table 3.12-12 data indicate that construction vibration levels anticipated for the Project are less than the 0.2 in/sec threshold at a distance of 25 feet. Use of vibratory compactors within 26 feet of the adjacent buildings could cause vibrations in excess of 0.2 in/sec. Structures which could be impacted by construction-related vibrations, especially vibratory compactors/rollers, are located approximately further than 30 feet from where compaction would occur. Therefore, this is a *less-than-significant* impact.

Although not a CEQA issue, it may be possible for residents of the proposed Project to experience some vibration associated with operation of the UPRR railroad tracks to the southeast of the Project site. Vibration associated with passing trains is not expected to cause undue impact to future residents of the proposed Project, nor cause damage to buildings on the Project site.

MITIGATION MEASURE

None required.

Impact 3.12-3: The proposed Project is not located within the vicinity of a private airstrip or an airport land use plan, within two miles of a public airport or public use airport, and would not expose people residing or working in the Project area to excessive noise levels. (No Impact)

The Project site is not located within two miles of a public or private airport or airstrip. The nearest airport, the University Airport, is located approximately 4.1 miles northeast of the Project site. Therefore, the Project would have *no impact* related to airports and airport noise.

MITIGATION MEASURE

None required.

CUMULATIVE IMPACTS

The cumulative context for noise impacts consists of the existing and future noise sources that could affect the Project site or surrounding uses.

Impact 3.12-4: The proposed Project, combined with cumulative development, could expose existing noise-sensitive land uses to increased noise. (Less than Significant)

Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways and on-site activities resulting from the operation of the proposed Project. Table 3.12-9 shows cumulative traffic noise levels with and without the proposed Project.

Although construction activities are temporary in nature and would occur during normal daytime working hours, construction-related noise could result in sleep interference at existing noise-sensitive land uses in the vicinity of the construction if construction activities were to occur outside the normal daytime hours. The cumulative noise would be fairly small and would not be substantial in a future noise environment.

The proposed Project, when considered alongside all past, present, and probable future projects, would not be expected to cause any significant cumulative construction noise impacts. The proposed Project would not have cumulatively considerable impacts associated with construction noise. Cumulative traffic noise levels would not be expected to cause significant traffic noise impacts. Therefore, the cumulative impact of noise on sensitive receptors would be *less than significant*.




MITIGATION MEASURE

None required.

Insert Figure 3.12-1 – Noise Measurement Sites

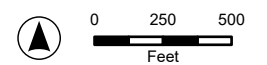


LEGEND

-  The Campus Project Site
-  Long Term Noise Measurement Site
-  Short Term Noise Measurement Site

THE CAMPUS EIR

Figure 3.12-1. Noise Measurement Sites



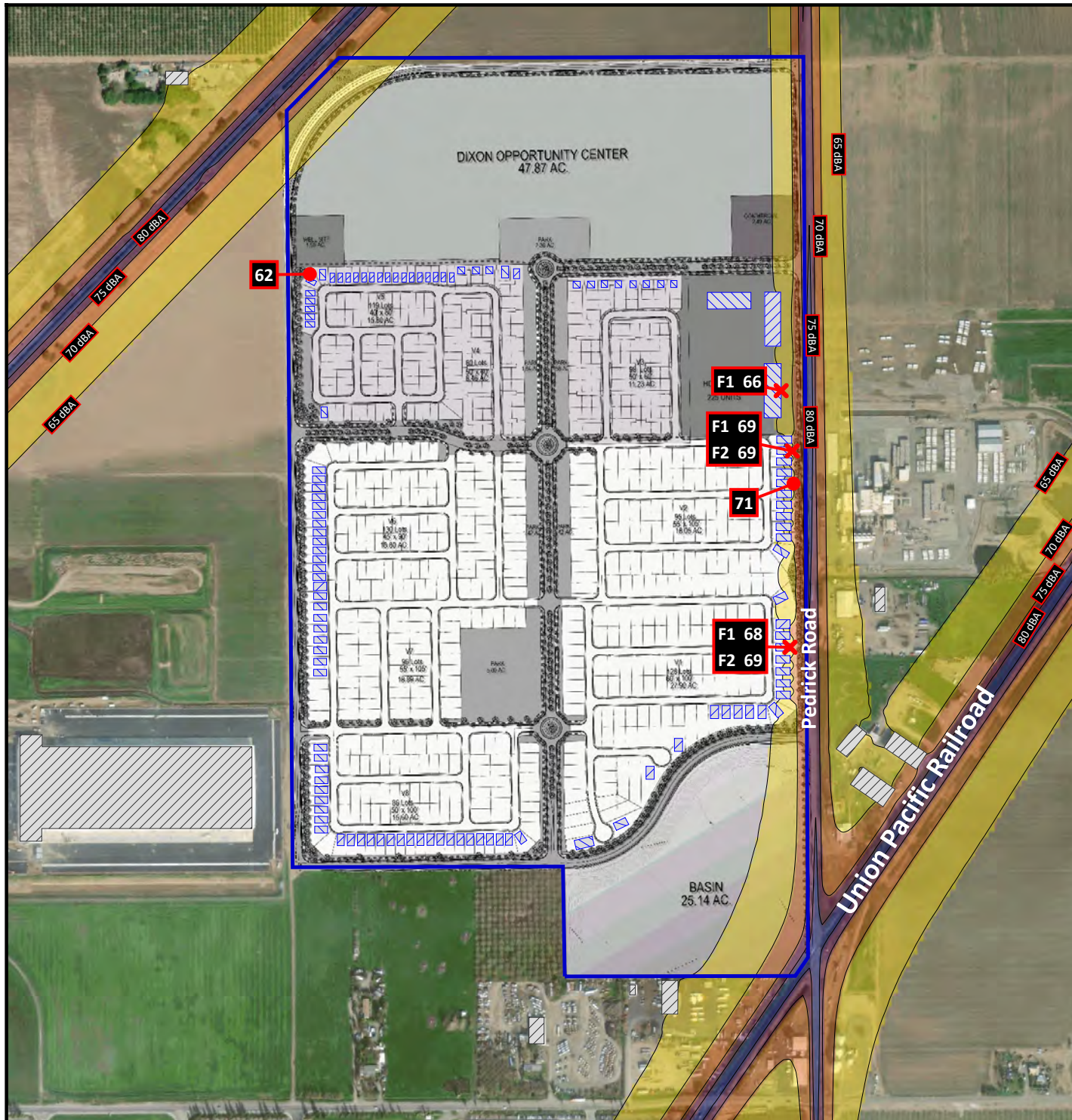
Sources: Saxelby Acoustics 12/19/2023; Solano County GIS; ArcGIS Online World Imagery Map Service; CalTrans, Map date: April 25, 2024.

Land Use Categories	Community Noise Exposure (CNEL, Ldn, or dBA)					
	55	60	65	70	75	80
Residential - Low Density Single Family, Duplex, Mobile Homes	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Residential - Multiple Family	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Transient Lodging - Motels, Hotels	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Schools, Libraries, Churches, Hospitals, Nursing Homes	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Auditoriums, Concert Halls, Amphitheaters	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Clearly Unacceptable	Clearly Unacceptable
	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Sports Arena, Outdoor Spectator Sports	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Clearly Unacceptable	Clearly Unacceptable
	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Playgrounds, Neighborhood Parks	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Gold Courses, Riding Stables, Water Recreation, Cemeteries	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Office Buildings, Business Commercial and Professional	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable
	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Industrial, Manufacturing, Utilities, Agriculture	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable
	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable

LEGEND

- Normally Acceptable
- Conditionally Acceptable
- Normally Unacceptable
- Clearly Unacceptable

Figure 3.12-2. Community Noise Compatibility Matrix



The Campus Development

City of Dixon, California

Figure 3.12-3

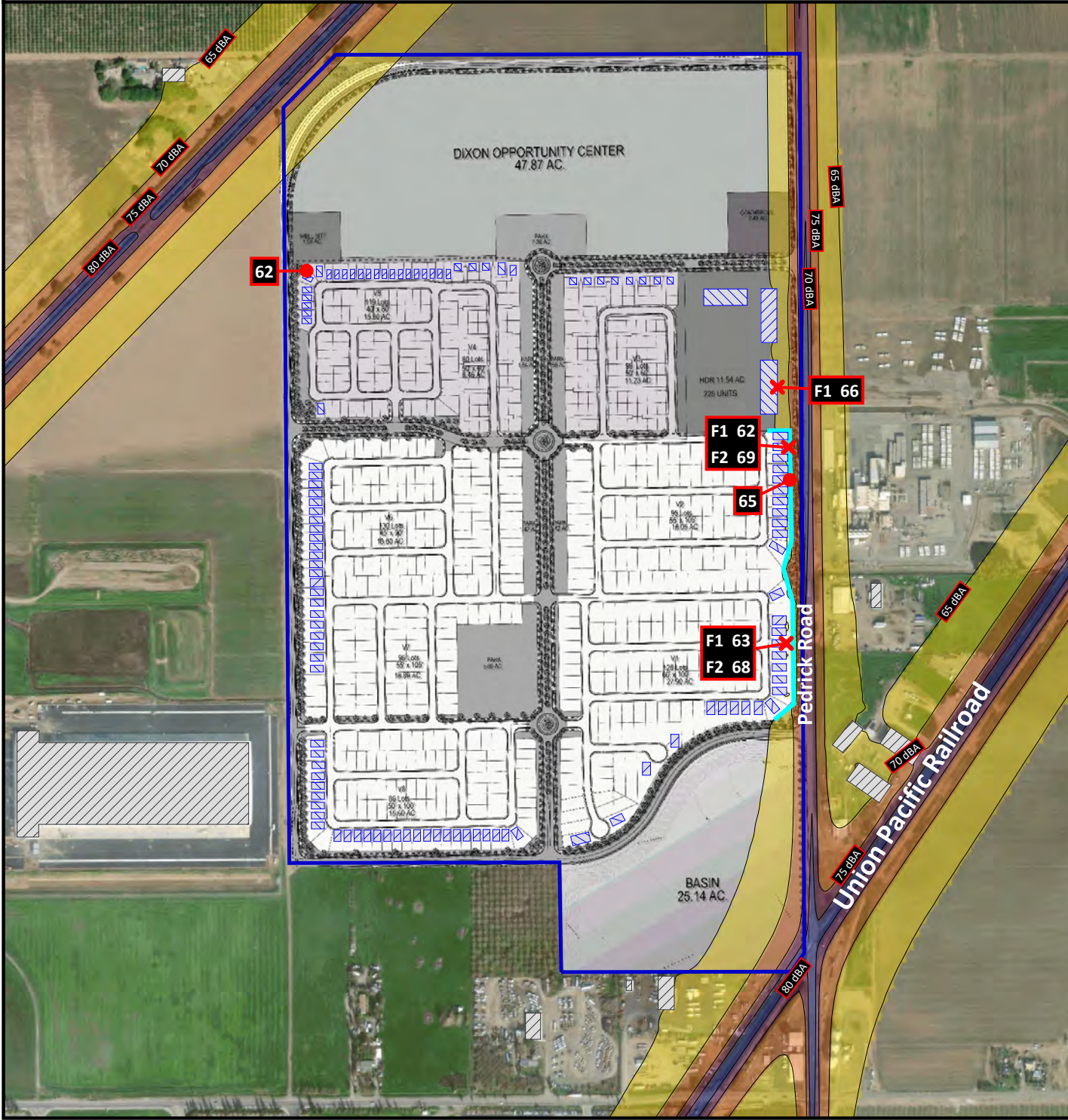
Transportation Noise on Project Site
Ldn, dB(A)

Notes: F# = Floor #

Noise Level, dB(A)		Legend	
65 <	<= 70		Project Building
70 <	<= 75		Existing Building
75 <	<= 80		Project Site
80 <			Facade Noise Level
			Outdoor Area Noise Level

Scale 1:735





The Campus Development

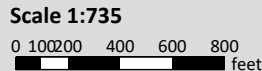
City of Dixon, California

Figure 3.12-4

Transportation Noise on Project Site with 8-foot Wall
Ldn, dB(A)

Notes: F# = Floor #

Noise Level, dB(A)		Legend	
65 <	<= 70		Project Building
70 <	<= 75		Existing Building
75 <	<= 80		Project Site
80 <			8-foot Sound Wall

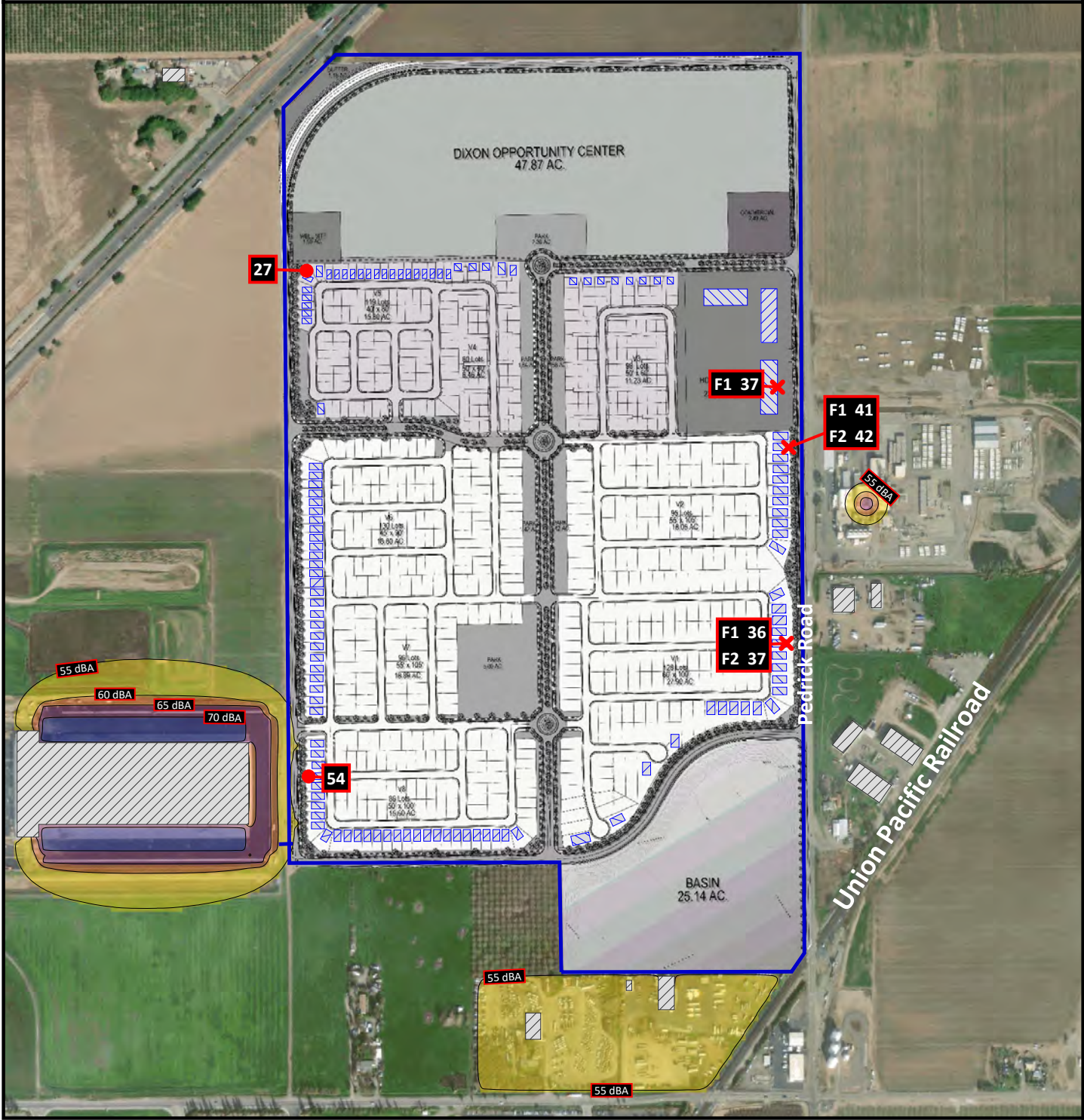


The Campus Development

City of Dixon, California

Figure 3.12-5
 Daytime Non-Transportation Noise
 on Project Site
 Leq, dB(A)

Notes: F# = Floor #



Noise Level, dB(A)	Legend
55 < [Yellow Box] <= 60	[Blue Hatched Box] Project Building
60 < [Orange Box] <= 65	[Grey Hatched Box] Existing Building
65 < [Purple Box] <= 70	[Blue Line] Project Site
70 < [Blue Box]	[Red X] Facade Noise Level
	[Red Dot] Outdoor Area Noise Level

Scale 1:735
 0 100 200 400 600 800 feet



The purpose of this EIR section is to analyze and disclose the anticipated growth in population that would result from project implementation, analyze the project's consistency with relevant planning documents and policies related to population, housing, and employment.

Information in this section is based on information provided by the project applicant in the project application package submitted to the City of Dixon, site surveys conducted by De Novo Planning Group in 2023, ground and aerial photographs, and the following reference materials:

- Dixon General Plan 2040 (City of Dixon, 2021);
- Draft Environmental Impact Report for the Dixon General Plan 2040 (City of Dixon, 2021);
- City of Dixon 2023-2031 Housing Element (Adopted March 21, 2023) (City of Dixon, 2023);
- City of Dixon Municipal Code (current through Ordinance 23-004, passed August 15, 2023);
- City of Dixon Northeast Quadrant Specific Plan (Adopted May 9, 1995, as amended) (City of Dixon 1995);
- Plan Bay Area 2050 (Association of Bay Area Governments, 2021);
- US Census data (United States Census Bureau, 2010, 2015, 2021); and
- California Department of Finance E-1 Estimates (2023), E-5 Estimates (2020), and E-8 Estimates (2000, 2010).

During the NOP comment period for the EIR, no comments regarding this topic were received.

3.13.1 ENVIRONMENTAL SETTING

POPULATION TRENDS

Table 3.13-1 summarizes the growth of the City of Dixon's population from the years 1990 to 2023, based on information from the California Department of Finance (DOF). As shown, the City's population has increased from 10,417 in 1990 to 19,018 in 2023, an average annual increase of 2.5 percent.

TABLE 3.13-1: POPULATION GROWTH – DIXON

YEAR	POPULATION	ANNUAL AVERAGE CHANGE
1990	10,417	--
2000	16,103	5.46%
2010	18,351	1.40%
2012	18,392	0.11%
2014	19,006	1.67%
2016	19,248	0.64%
2018	19,672	1.10%
2020	19,932	0.66%
2023	19,018	-1.53%

SOURCE: CALIFORNIA DEPARTMENT OF FINANCE E-1 ESTIMATES (2023), E-5 ESTIMATES (2020), AND E-8 ESTIMATES (2000, 2010).

3.13 POPULATION, HOUSING, AND EMPLOYMENT

HOUSING

Housing Stock

Table 3.13-2 summarizes the growth of the City’s housing stock from the years 1990 to 2023, based on information from the DOF. The number of housing units has increased from 3,564 in 1990 to 6,804 in 2023, an average annual increase of 2.8 percent.

TABLE 3.13-2: HOUSING UNIT GROWTH – DIXON

YEAR	HOUSING UNITS	ANNUAL AVERAGE CHANGE
1990	3,564	--
2000	5,172	4.51%
2010	6,172	1.93%
2012	6,178	0.05%
2014	6,297	0.96%
2016	6,328	0.25%
2018	6,468	1.11%
2020	6,614	1.13%
2023	6,804	0.96%

SOURCE: CALIFORNIA DEPARTMENT OF FINANCE E-1 ESTIMATES (2023), E-5 ESTIMATES (2020), AND E-8 ESTIMATES (2000, 2010).

Persons Per Dwelling Unit

The average number of persons residing in a dwelling unit in Dixon is 2.87.¹

EMPLOYMENT

Two types of employment data are described below: total jobs within the community; and employed residents, including the number of residents of working age who actively participate in the civilian labor force. A comparison of these data can indicate commute patterns (i.e., whether significant out-commuting or in-commuting occurs), which can also lead to traffic congestion and affect both local and regional air quality.

Table 3.13-3 shows employment growth in the City and Solano County since 2010, as well as a jobs-to-housing ratio and jobs-to-employed residents’ ratio. The jobs-to-housing ratio is used to evaluate whether a community has an adequate number of jobs available to provide employment for residents seeking employment. The jobs-to-housing ratio can be useful in understanding interconnections among housing affordability, traffic flows, congestion, and air quality within a city and larger region. The jobs-to-housing ratio is best analyzed at the sub-regional or regional level due to the tendency of people to commute to jobs outside of their community. A jobs-to-housing ratio

¹ California Department of Finance, 2023. *E-5 Population and Housing Estimates for Cities, Counties, and the State*. May 2023.

of 1.5 takes into account residents who do not participate in the labor force (e.g., those who are retired, disabled, or students) and indicates that a community has an adequate number of jobs to meet its residents' demand for employment. The jobs-to-employed residents' ratio is the relationship between the number of jobs provided to the number of employed residents within a community. An ideal jobs-to-employed residents' ratio is 1.0, which implies that there is a job in the community for every employable resident. A jobs-to-employed residents' ratio greater than 1.0 indicates that the community provides more jobs than it has employable residents, while a jobs-to-employed residents' ratio of less than 1.0 indicates that a community has fewer jobs than employable residents.

As shown in Table 3.13-3, the City currently (2021) supports 5,414 jobs and 10,281 employed residents, resulting in a jobs-to-employed residents' ratio of 0.5. This means the City has fewer jobs than employable residents, and that many residents would need to commute outside of the community for employment. The County currently (2021) has a similar jobs-to-employed residents' ratio (0.6) as the City. The jobs-to-housing ratio suggests that there is enough housing for the labor force in both the City and the County.

TABLE 3.13-3: JOBS TO HOUSING RATIO

	2010	2015	2021
Dixon			
Housing Units	6,172	6,297	6,624
Jobs	5,090	4,841	5,414
Employed Residents	9,564	10,035	10,281
Jobs-to-Housing Ratio	0.8	0.8	0.8
Jobs-to-Employed Residents	0.5	0.5	0.5
Solano County			
Housing Units	152,698	155,440	162,792
Jobs	122,180	144,483	131,442
Employed Residents	208,839	215,300	229,735
Jobs-to-Housing Ratio	0.8	0.9	0.8
Jobs-to-Employed Residents	0.6	0.7	0.6

SOURCE: CALIFORNIA DEPARTMENT OF FINANCE. 2021. UNITED STATES CENSUS BUREAU. 2010, 2015, 2021. ONTHEMAP VERSION 8.1.

GROWTH PROJECTIONS

Future Housing Needs

State law (California Government Code Section 65580 *et seq.*) requires the California Department of Housing and Community Development (HCD) to project statewide housing needs and allocate the anticipated need to each region in the state. Councils of Governments (COGs), including the Association of Bay Area Governments (ABAG), are responsible for developing a Regional Housing Needs Allocation (RHNA) Methodology for allocating the Regional Determination to each city and county in the COG's region. As part of this process, Solano County formed a subregion and established a methodology to distribute the units to each jurisdiction, including Dixon. Solano

3.13 POPULATION, HOUSING, AND EMPLOYMENT

County’s methodology and unit allocations were approved by HCD and the Solano County City County Coordinating Council in 2021. The City received an allocation of 416 units for the 2023-2031 RHNA period.²

Projections

ABAG plans for regional growth through the Plan Bay Area process. While Plan Bay Area 2050 does not address growth at the city-level, it does project that Countywide households will increase from approximately 142,000 in 2015 to 177,000 in 2050, an increase of 24 percent. Within the North Solano County sub-region, which includes Dixon, Plan Bay Area 2050 projects households will increase from approximately 89,000 in 2015 to 119,000 in 2050, an increase of 34 percent.

3.13.2 REGULATORY SETTING

STATE

Senate Bill 375

Senate Bill (SB) 375, adopted in October 2008, calls upon each of California's Metropolitan Planning Organizations (MPOs) to develop an integrated transportation, land use, and housing plan known as a Sustainable Communities Strategy (SCS). This SCS must demonstrate how the region will reduce greenhouse gas emissions through long-range planning. It also requires the Regional Housing Needs Allocation, which anticipates housing need for local jurisdictions, to conform to the SCS, which is an opportunity to advocate for increased access to and distribution of affordable housing across the region.

REGIONAL AND LOCAL

Regional Housing Needs Plan

A Regional Housing Needs Plan is required under California Government Code Section 65584 to enable regions to address housing issues and meet housing needs based on future growth projections for the area. The State determines the number of total housing units needed in each affordability range (very-low, low, moderate, and above-moderate) for each region. ABAG allocates housing needs among cities and counties in the nine-county ABAG region for each jurisdiction to use in drafting its housing element. The allocation comes after projection modeling based on current general plan policies, land use designations, and zoning. The allocations are based on “smart growth” assumptions in the modeling and aim to shift development patterns from historical trends (suburban sprawl) toward a better jobs/housing balance, increased preservation of open space, and development of mixed-use, transit-accessible areas. The regional housing need allocations are based

² Solano County, 2021. *Solano County Subregion 6th Cycle Regional Housing Needs Allocation. Final.* November 2021.

on an analysis of the available housing stock and vacancy rate in each community, any existing unmet needs for housing, the projected growth in the number of households (population growth and household formation rate), the local and regional distribution of income, and the need for housing generated by local job growth. **Table 3.13-4** shows the City’s regional housing needs allocation.

TABLE 3.13-4: DIXON’S SHARE OF THE REGIONAL HOUSING NEED, 2023-2031

<i>INCOME CATEGORY</i>	<i>NUMBER OF UNITS</i>	<i>PERCENTAGE</i>
Very Low* (31%-50% of the Area Median Income)	113	27.2%
Low (51%-80%)	62	14.9%
Moderate (81%-120%)	62	14.9%
Above Moderate (more than 120%)	179	43.0%
Total	416	100.0%

*NOTE: *IT IS ASSUMED THAT 50 PERCENT OF THE VERY LOW-INCOME CATEGORY IS ALLOCATED TO THE EXTREMELY LOW-INCOME CATEGORY.*

SOURCE: CALIFORNIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT, STATE INCOME LIMITS FOR SOLANO COUNTY, 2021; SOLANO COUNTY SUBREGION 6TH CYCLE REGIONAL HOUSING NEEDS ALLOCATION, FINAL METHODOLOGY; CITY OF DIXON 2023-2031 HOUSING ELEMENT, ADOPTED MARCH 21, 2023.

Plan Bay Area 2050

ABAG is the official comprehensive planning agency for the San Francisco Bay region, which is composed of the nine counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma, and contains 101 jurisdictions. In October 2021, ABAG and the Metropolitan Transportation Commission (MTC), which is the region’s MPO, jointly adopted Plan Bay Area 2050, an integrated housing, economy, transportation and environment strategy through 2050 that meets the requirements of Senate Bill (SB) 375. Working in collaboration with towns, cities, and counties, Plan Bay Area 2050 advances initiatives to expand housing and transportation choices, promote equity, create healthier communities, adapt to a changing climate, and build a stronger regional economy while accommodating anticipated growth in the Bay Area region. Plan Bay Area 2050 was developed to accommodate the Bay Area RHNA.

To achieve the ABAG and MTC sustainable vision for the Bay Area and advance equity throughout the region, future growth and development scenarios referred to as “Futures” were developed for the Plan Bay Area 2050 effort. Each Future varied in terms of economic vibrancy, population growth rates, severity of natural hazards like sea level rise and earthquakes, and adoption rates for telecommuting or autonomous vehicles, among other forces. The 35 strategies included in Plan Bay Area 2050 proved effective across multiple Futures or respond to challenges that remained unaddressed after the conclusion of the Horizon effort. To best capture the impacts of these strategies and the financial capacity available to implement them, updated growth assumptions were developed for Plan Bay Area 2050.

Dixon General Plan 2040

The Dixon General Plan 2040 was adopted in May 2021 and serves as the primary policy document that guides the growth and development of the city. The General Plan Land Use Designations map establishes land use designations for all parcels within the General Plan Planning Area (i.e., the City of Dixon and Sphere of Influence) and estimates the residential and employment capacities based on future dwelling unit densities and commercial/industrial building intensities. Based on a total of 9,506 dwelling units, the General Plan EIR estimates a buildout population of 28,893.³ Non-residential development is expected to result in 6,637 jobs at buildout.⁴

The Dixon General Plan contains the following goals and policies that are relevant to population and housing:

LAND USE AND COMMUNITY CHARACTER

Policy LCC-1.5 Realize a steady, controlled rate of residential growth and a balanced mix of housing opportunities throughout Dixon that meets the needs of a range of income levels, ages and household sizes.

Policy LCC-5.4 Grow the base of industrial and commercial employers in the Northeast Quadrant, and highway adjacent areas of the Southwest Dixon Specific Plan area, focusing uses that have common needs in this area to capitalize on synergies and minimize conflicts with other uses.

Policy LCC-5.5 Foster a mixed use employment district in the Northeast Quadrant, leveraging the availability of large parcels and the proximity to UC Davis.

GOAL LCC-6. Foster residential neighborhoods with attractive design, safe streets, access to shopping and services, and gathering places for the community.

Policy LCC-6.1 Promote the development of compact, complete residential neighborhoods by encouraging the location of services and amenities within walking and biking distance of residences so as to foster opportunities for social interaction and reduce the need to travel by car.

Policy LCC-6.2 Encourage an integrated mix of housing types and sizes within residential neighborhoods to promote opportunities for people at all stages of life to live in Dixon.

³ City of Dixon, 2020. *General Plan 2040 Environmental Impact Report. Public Review Draft.* July, 2020. Table 5.1-3.

⁴ City of Dixon, 2020. *General Plan 2040 Environmental Impact Report. Public Review Draft.* July, 2020. Table 5.1-4.

ECONOMIC DEVELOPMENT

Policy E-2.4 Grow the residential base in Dixon to support a vibrant local retail sector and minimize retail sales leakage.

2023-2031 HOUSING ELEMENT

GOAL 2. Protect and conserve the existing housing stock in Dixon.

GOAL 3. Encourage a diversity of housing types that will meet a range of needs for all economic groups in Dixon.

Policy 3.1 Maintain land use policies that allow residential growth consistent with the availability of adequate infrastructure and public services.

Policy 3.2 Support development of multifamily housing, particularly as part of mixed-use projects, through appropriate land use designations and zoning districts.

Policy 3.3 Encourage a variety of housing types, including both rental and ownership housing and new for-sale and rental housing units that will provide a choice of housing type, density, and cost.

Dixon Municipal Code

The Dixon Zoning Ordinance (Title 18 of the Municipal Code) implements the General Plan and provides regulations that address the density, location, and design of new housing units.

Northeast Quadrant Specific Plan (NEQSP)

Adopted in 1995, the NEQSP establishes a land use and circulation plan, policies, and guidelines for the ultimate development of 643 acres in the northeast portion of the City of Dixon. The NEQSP defines the land use and development concepts to be applied in the plan area and is intended to implement the objectives and policies of the Dixon General Plan. The NEQSP establishes general criteria for development to be implemented through a Planned Development or equivalent regulatory mechanism.

Priority Production Areas

In 2017, the MTC initiated a new Priority Production Area (PPA) program intended to strengthen selected clusters of industrial development in the region and support the growth of middle-wage jobs in sectors involving production, distribution, and repair services, including logistics and advanced manufacturing. In September 2019, the City nominated a 282-acre area within the Northeast Quadrant as a PPA, and the area was formally designated a PPA by MTC in January 2020.

City of Dixon Measure B

In 1986, Dixon voters approved Measure B, a growth management initiative. Voters reaffirmed the measure in 1996. The measure limits annual residential growth in the city to a number of dwelling

3.13 POPULATION, HOUSING, AND EMPLOYMENT

units that is no more than three percent of the total number of housing units as of December 31 of the prior calendar year. In addition, Measure B is intended to create and maintain an approximate mix of 80 percent single-family housing units (including single-family attached and duplex units) and 20 percent multifamily dwelling units. The purpose of Measure B is to achieve a balanced housing mix and a steady, controlled rate of annual growth. Measure B enables the City to enhance the mix of housing types by encouraging 20 percent multifamily units. The measure was also designed to ensure that City services and facilities would be adequate to serve the needs of existing and future residents.

In order to encourage the production of housing, any allotments from the residential development allotment pool that remain unallocated under Measure B at the end of each consecutive five-year period may continue to be used for housing. Furthermore, Measure B contains a nondiscretionary exemption that permits a higher number of units to be built in a single year. The measure's "rollover" provision enables units not built during one year to be constructed in subsequent years as long as the total number of units approved over the five-year period averages three percent a year.

Program 3.1.1 in the Housing Element prohibits enforcement of Measure B through the 6th cycle (2023-2031) planning period.

3.13.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Based on the standards established by Appendix G of the CEQA Guidelines, the proposed project would have a significant impact on population and housing if it would:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

METHODOLOGY AND ASSUMPTIONS

This analysis considers whether the project would result in a substantial increase in or displacement of population and housing within the City and region.

The following impact thresholds are scoped out because there would be no impact; refer to Chapter 6.0, Effects Not Found to be Significant.

- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

IMPACTS AND MITIGATION

Impact 3.13-1: Implementation of the proposed Project would not induce substantial population growth in the area, either directly or indirectly. (Less than Significant)

The project proposes a mixed-use development within the City's NEQSP consisting of a 48-acre Dixon Opportunity Center (DOC) area developed to accommodate technology, business park, and light industrial uses; approximately 144 acres of residential uses; and approximately 2.5 acres of commercial uses. The project also includes infrastructure improvements and roadway modifications. Project implementation could yield a net change over existing conditions of 1,041 additional dwelling units and approximately 687,000 square feet of non-residential uses. The project would accommodate future residential growth and development primarily by amending the NEQSP and rezoning the project site to Campus Mixed Use Planned Development (CAMU-PD), consistent with the City's recently adopted 2040 General Plan Campus Mixed Use designation.

Implementation of the proposed project would allow for the development of up to 1,041 net new housing units with a population increase of approximately 2,988 people.⁵

Potential impacts associated with substantial unplanned population growth in an area are assessed based on a project's consistency with adopted plans that have addressed growth management from a local and regional standpoint. As indicated above, the Dixon General Plan 2040 EIR anticipates a total of 9,506 dwelling units and a population of 28,893 within the General Plan Planning Area. In addition, the Dixon General Plan 2040 identifies anticipated growth occurring primarily within four key areas, including the NEQSP area.⁶ Thus, population growth within the project site has been anticipated by the General Plan. The population and employment growth anticipated as a result of project implementation is within the overall City's growth projections of the Dixon General Plan 2040. Thus, the Project would be within the population projections anticipated and planned for by the City's General Plan and would not induce substantial unplanned population growth in the area.

In addition, ABAG's Plan Bay Area 2050 projects that from 2015 through 2050, households in the North Solano County sub-region (which includes Dixon) will increase by 30,000 housing units (or approximately 91,200 persons).⁷ As such, the population that would result from the project would not exceed growth planned for the region.

It is noted that the project would ultimately be constructed in three phases to allow for its orderly development. The first phase of development would consist of approximately 405 market-rate

⁵ Calculated using 2.87 persons per household for the City of Dixon (California Department of Finance, 2023).

⁶ City of Dixon, 2021. *General Plan 2040*. May, 2021. Figure LCC-2.

⁷ Calculated using 2.74 persons per household for Solano County (California Department of Finance, 2023).

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residential units, as well as infrastructure improvements and roadways to serve the development. Development associated with the Project would provide for employment opportunities, particularly during construction phases. However, temporary construction jobs do not typically provide employment opportunities that involve substantial numbers of people needing to permanently relocate to fill the positions, but rather would provide employment opportunities to people within the local community and surrounding areas.

Overall, the project is consistent with the regional growth projections prepared by the General Plan and ABAG. With implementation of General Plan policies and Municipal Code requirements intended to guide growth and provide services necessary to accommodate growth, including reducing potential environmental impacts related to growth, impacts associated with the unplanned population growth would *less than significant*.

MITIGATION MEASURE(S)

None required.

CUMULATIVE IMPACTS

Related projects in the City may have the potential to interact with the proposed project to the extent that a significant cumulative effect relative to population and housing may occur. The geographic setting for population and housing is typically regional and considers development within the City, as well as development within the County and ABAG region. This analysis evaluates whether impacts of the project, together with impacts of cumulative development, would result in a cumulatively significant impact with respect to population and housing. This analysis then considers whether incremental contribution of the impacts associated with project implementation would be significant. Both conditions must apply for cumulative effects to rise to the level of significance.

Impact 3.13-2: Implementation of the proposed Project, in combination with other cumulative development, would not induce substantial population growth in the area, either directly or indirectly, and would not displace a substantial number of people requiring the construction of new housing. (Less than Significant)

Cumulative development anticipated in the region may result in impacts to residents and housing, including substantial population growth, housing construction, and displacement.

As described above, ABAG projects that population of North Solano County sub-region will increase by approximately 24 percent, from 142,000 in 2015 to 177,000 in 2050, an increase of approximately 91,200 people based on the County average household size of 2.74 persons. The Dixon General Plan 2040 EIR anticipates a total of 9,506 dwelling units and a population of 28,893 within the General Plan Planning Area.

Cumulative development consistent with adopted general plans would not result in substantial unplanned population growth either directly or indirectly. Therefore, the cumulative impact would be ***less than significant***.

MITIGATION MEASURE(S)

None required.

This section describes and evaluates potential impacts associated with the provision of police protection, fire protection and emergency services, schools, parks and recreation, and other services for the proposed Project. The information in this section is derived from:

- Dixon General Plan 2040 (City of Dixon, 2021);
- Dixon Unified School District 2022 Developer Fee Justification Study (Schoolworks, Inc. June 2022)
- Draft Environmental Impact Report for the Dixon General Plan 2040 (City of Dixon, 2021);
- City of Dixon Police Department 2022 Annual Report (Dixon Police Department, 2022),
- City of Dixon Fire Department 2022 Annual Report (Dixon Fire Department, 2022),
- City of Dixon, Parks and Recreation Master Plan (City of Dixon, 2023), and
- Solano County website (<http://www.solanocounty.com/>).

No comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic. Full comments received regarding other comments are included in Appendix A.

3.14.1 ENVIRONMENTAL SETTING

POLICE PROTECTION

The Dixon Police Department (DPD) services the City of Dixon and is comprised of the Field Operations Division that maintains 24-hour security patrol throughout the community and the Support Services Division that consists of Investigations, Property and Evidence, Records, Code Enforcement, Terrorism Liaison Officers, and Community Service Officers. The Department also runs a variety of community programs to promote education, training, and safety. Unincorporated-area of Dixon's Sphere of Influence have general-service law enforcement provided by the Solano County Sheriff-Coroner.

Staffing

The Police Department is based at 201 West A Street in Dixon (**Figure 3.14-1**). In 2019, the Police Department had 29 sworn police officers, 2 administrative staff, and 3 community service officers. The Dixon Police Department does operate a specialized Traffic program with two police motorcycles. All officers have the responsibility of carrying out traffic enforcement duties including enforcement of vehicle code violations, driving under the influence enforcement, and collision investigations. There is also a civilian position within the Department known as the Community Service Officer (CSO) that does not require peace officer training but performs a variety of professional law enforcement functions including, crime prevention, property and evidence management, information gathering and report writing, and code enforcement. There were three CSOs within the department as of June 2020.

Other collateral assignments included a Terrorist Liaison Officer (TLO) who work with the Sacramento Regional Threat Assessment Center (SACRTAC). The department also has a police K-9

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unit independent of patrol operations to support the police mission. Dixon Police Officers also participate in collateral duty assignments within Solano County teams, including the regional SWAT team, crisis negotiation teams and the Solano County Mobile Field Force civil disturbance team.

Equipment

The Police Department maintains 16 patrol units, 1 Utility Trailer, 4 Administration Vehicles, and 5 Unmarked Vehicles.

Service Calls and Response Times

In 2022, the patrol division of the Dixon Police Department initiated or responded to 18,448 calls for service in the City. These incidents included 2,816 traffic stops, 2,192 follow up investigations and 592 suspicious vehicle/person checks. The department also handled 2,047 safety or security checks, 261 citizens assists and 615 welfare checks.

The Department has a goal to maintain a response time of less than five minutes to Priority 1 calls which typically relate to incidents in which there is an immediate threat to life, danger of serious physical injury, or danger of major property damage. The average response time to a citizen-initiated call for service was 5 minutes 48 seconds.

The demand for police services and the need for police staff will grow in direct proportion to the growth of population and businesses within the City. **Table 3.14-1** provides statistics on National Incident-Based Reporting System (NIBRS) police crime data from 2021 through 2022. The most committed crimes from 2021-2022 are related to Larceny/Theft and Assault Offenses in Group A NIBRS Offenses and Driving Under the Influence and Other Offenses in Group B NIBRS Offenses.

TABLE 3.14-1: DIXON POLICE DEPARTMENT CRIME & REPORT DATA (2021-2022)

OFFENSE TYPE	2021	2022
<i>Group A NIBRS Offenses</i>		
Animal Cruelty	0	0
Arson	4	4
Assault Offenses	155	191
Bribery	0	0
Burglary	49	71
Counterfeiting/Forgery	14	11
Destruction/Damage/Vandalism	198	139
Drug/Narcotic Offenses	147	129
Embezzlement	2	3
Extortion/Blackmail	1	8
Fraud Offenses	28	48
Gambling Offenses	0	0
Homicide Offenses	0	0

<i>OFFENSE TYPE</i>	<i>2021</i>	<i>2022</i>
Human Trafficking	0	0
Kidnapping/Abduction	15	12
Larceny/Theft	215	186
Motor Vehicle Theft	34	36
Pornography/Obscene Material	3	8
Prostitution Offenses	2	0
Robbery	7	8
Sex Offenses (Forcible)	14	15
Sex Offenses (Non-Forcible)	1	0
Stolen Property Offenses	36	34
Weapon Law Violations	35	32
Total Group A NIBRS Offenses	960	935
<i>Group B NIBRS Offenses</i>		
Bad Checks	0	0
Curfew/Loitering/ Vagrancy	3	0
Disorderly Conduct	27	43
Driving Under the Influence	48	53
Drunkenness	4	0
Family Offenses (Non-Violent)	3	0
Liquor Law Violations	3	0
Peeping Tom	1	0
Trespassing	19	10
All Other Offenses	311	144
Total Group B NIBRS Offenses	419	250

SOURCE: DIXON POLICE DEPARTMENT 2022 ANNUAL REPORT.

FIRE PROTECTION AND EMERGENCY SERVICES

The Dixon Fire Department (DFD) provides fire protection services within the 6.7 square miles of the Dixon City Limits and the surrounding 320 square mile unincorporated area known as the Dixon Fire Protection District as part of contractual agreement with Solano County. The City of Dixon and the surrounding area of the Dixon Fire Protection District are divided into sub-districts. The City consists of three subdistricts, and the Dixon Fire Protection District consists of seven sub-districts. Fire Department services include fire suppression, fire prevention, education, emergency medical and rescue services, and response to incidents involving hazardous materials.

Staffing

The Fire Department is based at 205 Ford Way in Dixon (Figure 3.14-1). The Dixon Fire Department is currently comprised of 36 people, both paid and volunteers. The combination department is manned by 28 career and 2 volunteer/reserve personnel working a 48/96-hour rotation schedule. The department's administration consists of 1 chief, 1 deputy chief, 3 battalion chiefs and 2

administrative personnel. Fire staffing consists of three shifts that work 24 hours a day, 7 days a week. Each shift works 2 days on and 4 days off (48/96 schedule), and is comprised of 21 personnel; 6 Captains, 2 Acting Captains, 4 Engineers, 2 Acting Engineers, and 7 Firefighters or Firefighter/Paramedics, staffing four fire engines. Minimum staffing per day is 6; this is the lowest number of suppression staff on-duty each day without backfilling with overtime. There is also one Chief Officer on duty or on call 24 hours a day, 7 days a week. Staffing is supplemented with reserves when they are available.¹

Equipment

The City of Dixon operates ten pieces of firefighting equipment: three Type 1 engines, one Type 3 engine, one Type 5 engine, one aerial ladder engine, one stake side utility vehicle, three command vehicles, one rescue squad vehicle, and two water tenders. In addition, there are six utility vehicles. While most of the utility vehicles have been acquired within recent years, other equipment that the Department operates are nearing their life span or due for replacement, particularly the water tenders and one of the Type 1 engines.

Service Calls and Response Times

The Fire Department has not set a goal for maximum response time. As of 2018, the Fire Department for the City of Dixon had an average response time of 3:22 – 5:28 minutes². In 2022, the Dixon Fire Department responded to 3,024 calls for service, a 20.2 percent increase from 2,514 service calls in 2019. Of the calls for service in 2022, 65.8% were for Rescue & EMS, 13.8% were for Good Intent, 8.6% were for service calls, and 5.7% were for fires. The remaining incidents were of all other types such as false alarm, hazardous material releases, and others.

Table 3.14-2 provides statistics on fire calls/service in 2022. As mentioned before, the DFD responded to 3,024 total calls for service in 2022 for a 2.4% increase from 2021. The most frequent types of calls for fire services in 2022 were related to Rescue & Emergency Medical Services (EMS) (65.8%). Fires represented 5.7% of all calls.

¹ Matrix Consulting Group. Strategic Plan and Standard of Cover Dixon Fire Department. May 2019.

² Matrix Consulting Group. Strategic Plan and Standard of Cover Dixon Fire Department. May 2019.

TABLE 3.14-2: DIXON FIRE DEPARTMENT CALLS FOR SERVICE (2022)

CALL TYPE	NUMBER OF INCIDENTS
Rescue & EMS	1,990
Hazardous Condition (No Fire)	59
Service Call	261
Good Intent	417
False Alarm & False Call	110
Severe Weather & Natural Disaster	1
Special Incident Type	13
Fires	173
Total Calls for Service	3,024

SOURCE: DIXON FIRE DEPARTMENT ANNUAL REPORT 2022.

Fire Insurance Rating

In 2018, the Insurance Services Office (ISO) gave the City of Dixon an ISO rating of 3, and the surrounding District an ISO rating of 3Y/10. The ISO organization analyzes and provides statistical information on risk, which heavily impacts residential and commercial insurance rates. The ISO Public Protection Classification (PPC) rating is from 10 to 1, with "1" being the best rating available. ISO evaluates cities and assesses a PPC based on a variety of technical and demographic factors for each individual city and their fire department. Some examples are the equipment a fire department owns or the distance between fire hydrants. The ISO also requests that fire departments conduct 20 hours of training per firefighter, each month, in order to maximize points for every training aid.

The demand for fire services and the need for fire staff will grow in direct proportion to the growth of population and businesses in the City.

SCHOOLS

Dixon Unified School District

The Dixon Unified School District (DUSD) provides educational services for students of all grades in elementary, junior, and high school for the City of Dixon, as well as throughout nearby portions of unincorporated Solano County. As shown in Figure 3.14-1, all six schools in the district are within the City of Dixon. The district maintains six schools in addition to operating the Dixon Adult School: four elementary schools, a middle school, and high school. **Table 3.14-3** contains the DUSD school facility inventory, including the student enrollment for the 2022-2023 school year.

As shown in Table 3.14-3 the schools in DUSD had a total enrollment of approximately 3,468 students, of which 2,360 were enrolled in elementary and middle school (grades K – 8) and 1,013 were enrolled in high school (grades 9 – 12) during the 2022 to 2033 school year.

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TABLE 3.14-3: DIXON UNIFIED SCHOOL DISTRICT: SCHOOL INVENTORY AND 2022/2023 ENROLLMENT

SCHOOL	ENROLLMENT
Elementary Schools	1,727
Anderson (Linford L.) Elementary (K-6)	485
Dixon Montessori Charter (K-8)	447
Gretchen Higgins Elementary (K-5)	373
Tremont Elementary (K-5)	422
Junior High Schools	633
John Knight Middle (6-8)	633
High Schools	1,013
Dixon High (9-12)	1,013
Other	95
Maine Prairie High (Continuation) (10-12)	84
Nonpublic, Nonsectarian Schools (K-12)	11
Total	3,468

SOURCE: DIXON JOINT UNIFIED SCHOOL DISTRICT, SCHOOL ACCOUNTABILITY REPORT CARDS FROM 2022-2023 SCHOOL YEAR.

As of 2022, DUSD has a student capacity of 5,241 students,³ well beyond the current enrollment at all school levels, as seen in Table 3.14-3. Assuming the existing facilities remain in sufficient condition to maintain existing levels of service, the DUSD has an available capacity of 2,030 students.

Recent improvements and measures taken to support ongoing and future provision of educational services by the District are outlined by their Facilities Master Plan. In the most recent draft update, the District proposed multiple projects for its school buildings to meet facility needs, including a new elementary school facility on part of the Old Dixon High School site, technology upgrades, and field replacements. DUSD also owns a 17.3-acre vacant site, planned to be used for an agricultural program or as a school farm. Additionally, to ensure adequate facilities are available to meet enrollment trends and accommodate potential future growth, the school district has impact fees set in place for residential and commercial/industrial development projects. Other proposed projects financed by Measure Q bond proceeds, passed in 2016, include the repair, renovation, and reopening of the Old Dixon High School as a Grade 6-8 middle school; repair and renovation of Anderson Elementary School; improvement of security/safety and Americans with Disabilities Act (ADA) compliance at all District school sites; and other associated miscellaneous bond projects, including temporary housing, appraisals, site analyses, risk assessments, and preconstruction studies.

Other Schools

There are two private schools in Dixon: Neighborhood Christian School (655 South First Street), serving preschoolers up to eighth grade; and Dixon Montessori Charter School (355 N Almond

³ Dixon Unified School District Board of Education, Developer Fee Justification Study, 2022. Accessed January 16th, 2024.

Street), serving kindergarten through eighth grade. CEQA is mainly concerned with public schools, as increased enrollment could trigger the need to spend public funds on construction that could result in environmental impacts.

LIBRARY SERVICES

The Dixon Carnegie Library, located at 230 North 1st Street, serves the City of Dixon and is a community landmark. The 8,000-square-foot library building, first constructed in 1912 and rehabilitated in 1987, is on the National Register of Historic Places. The Library, which is staffed and managed by the County of Solano, currently has a staff of 21 people, a collection of nearly 50,000 items, and eight computers available for public use and provides programming for both children and adults, including the Dixon Adult Literacy Program (DALP). The Dixon Library is also a member of the Solano Partner Libraries and St. Helena (SPLASH) Consortium which provides automated library services to patrons residing in Solano and Napa counties and promotes resource sharing. In January 2020, the Governing Library Board of Trustees voted to join the Dixon Library into the Solano County Library system. A possible expansion into a vacant building that the library owns, which is adjacent to the existing library, is currently being studied. The Dixon Library has long served as the repository for photos, documents and other materials about the community of Dixon, many of which are original, one-of-a-kind items.

The Friends of the Dixon Public Library provide financial contributions which help support the Summer Reading Programs for all ages and programs throughout the year. The Friends run The Friendly Bookworm a used bookstore situated next door to the library, which is open four days a week.

PARKS AND RECREATION SYSTEM

The City of Dixon maintains eight public parks, representing approximately 89.85 acres of parkland in the City of Dixon, summarized in **Table 3.14-4**, including neighborhood and community parks. Neighborhood parks are intended to provide open space and basic recreational facilities for residents in the vicinity of the park, while community parks provide space for organized sports and major facilities for the broader community, including swimming pools, ball fields, and community centers. There are approximately 18.52 acres of neighborhood parks, 71.33 acres of community parks, and 1.5 miles of trails in the City of Dixon.

Neighborhood parks and community parks, while both parks, generally offer different types of facilities and recreation. Neighborhood Parks are smaller, under 12 acres, and provide a service radius of up to a half-mile. These amenities are typically oriented toward informal recreation or sports, families, and individuals. They may also include sports facilities for informal recreation such as shuffleboard, tennis, pickleball, or basketball. Community parks are larger scale parks that serve the broader community. In addition to some of the amenities offered in Neighborhood Parks, they should primarily offer facilities geared toward formal sport and recreational activities, such as baseball, soccer, and football. They are typically over 12 acres in size and service a larger radius of up to 3 miles.

3.14 PUBLIC SERVICES AND RECREATION

TABLE 3.14-4: PARK FACILITIES INVENTORY

TYPE OF PARK/RECREATION AREA	ACREAGE
<i>NEIGHBORHOOD PARKS</i>	
Pardi Plaza	0.33
Women's Improvement Park	0.65
Southwest Neighborhood Park	4.00
Patwin Park	4.93
Conejo Park	3.61
Veterans Park	5.00
<i>Subtotal</i>	<i>18.52</i>
<i>COMMUNITY PARKS</i>	
Northwest Park	22.53
Hall Park	48.80
<i>Subtotal</i>	<i>71.33</i>
Total Park Acreage	89.85
Total Trail Miles	1.5

SOURCE: CITY OF DIXON PARKS AND RECREATION MASTER PLAN UPDATE (DECEMBER 2023), TABLE 2-1.

The neighborhood parks each have playground facilities, shaded picnic areas, walking paths and open space. Some neighborhood parks also include additional recreational facilities, such as basketball courts or exercise equipment. The City also has two community parks, which serve the whole city. Hall Park is the largest park, and contains many of the special facilities, such as the skate park, pool facility, dog park, pickleball and tennis courts, and the only synthetic turf field in the City. Hall Park also has a covered arena for futsal/soccer or volleyball.

Recreational Services and Joint Use Facilities

The City of Dixon Recreation Division provides programming for youth, teens, adults, and seniors. The City offers a wide range of programming, including sports leagues, special interest recreation classes (e.g., Babysitting 101, lifeguard training, etc.), special events, and more. Spaces for active use include fields in public parks, as well as Dixon Unified School District (DUSD) Property, enabled by a Joint Facility Use Agreement with the school district to share recreational and community facilities, including gymnasiums, multi-use rooms, and classrooms. A joint venture project with the DUSD also resulted in the construction of a 5,000-square-foot performing arts center at Dixon High School to meet the cultural arts needs of the community. Other recreational facilities that house these programs include the Pat Granucci Aquatic Center and the Senior/Multi-Use Center.

Future Needs

The City of Dixon is projected to grow nearly 50 percent by the year 2040 to a population of 28,450 residents. In order to meet the goal of 5 acres of parkland for every 1,000 residents, this will require the dedication of additional parkland as development occurs. Currently, Dixon is under the goal, with 89.85 total acres of parkland and a population of 19,017, which creates a ratio of 4.72 acres per 1,000 residents.

Table 3.14-5 shows the City's parkland goals and its current parkland distribution.

TABLE 3.14-5: PARKLAND GOALS AND CURRENT RATIOS PER RESIDENT

<i>NEIGHBORHOOD PARKS</i>	<i>PARKLAND RATIO</i>
<i>NEIGHBORHOOD PARKS</i>	
Standard/Goal	1.2 acres / 1,000 residents
Current	0.97 acres / 1,000 residents
<i>COMMUNITY PARKS</i>	
Standard/Goal	3.8 acres / 1,000 residents
Current	3.75 acres / 1,000 residents
<i>CITYWIDE PARKS</i>	
Standard/Goal	5.0 acres / 1,000 residents
Current	4.72 acres / 1,000 residents

SOURCE: CITY OF DIXON PARKS AND RECREATION MASTER PLAN UPDATE (DECEMBER 2023), PAGES 56 AND 57.

By 2040, the City will require an additional 52.4 acres of parks, for a total of 142.25 acres in order to meet the projected growth. The planned park in Southwest Dixon Specific Plan area (Homestead) Area, the Hall Park expansion, and proposed parks in the NEQSP area will contribute to the total, but there will still be a need for approximately three additional acres of parks to meet the goal in 2040. **Table 3.14-6** shows the current and projected parkland acreages and ratio per resident. An additional 10.62 acres of neighborhood parks would be required by 2040 to sustain the City's established ratio. However, there would be enough community parks to support the projected 2040 population. Overall, there would be a small parkland deficit in 2040.

TABLE 3.14-6: PROJECTED PARKLAND NEEDS AND RATIOS

<i>NEIGHBORHOOD PARKS</i>	<i>ACREAGE</i>	<i>PARKLAND RATIO</i>
<i>NEIGHBORHOOD PARKS</i>		
Existing and Planned	23.52	0.83 acres / 1,000 residents
Needed by 2024	34.14	1.2 acres / 1,000 residents
<i>COMMUNITY PARKS</i>		
Existing and Planned	115.73	4.06 acres / 1,000 residents
Needed by 2024	108.11	3.8 acres / 1,000 residents
<i>CITYWIDE PARKS</i>		
Existing and Planned		5.0 acres / 1,000 residents
Needed by 2024		4.9 acres / 1,000 residents

SOURCE: CITY OF DIXON PARKS AND RECREATION MASTER PLAN UPDATE (DECEMBER 2023), PAGES 57 AND 58.

3.14.2 REGULATORY SETTING

STATE

Uniform Fire Code

The City adopted the 2022 California Fire Code and by reference, the 2021 International Fire Code, which contain regulations relating to construction, maintenance, and use of buildings. Topics addressed in the California Fire Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many

other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The Fire Code contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code. This includes regulations for building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

California Code of Regulations

The California Code of Regulations, Title 5 Education Code, governs all aspects of education within the State.

Proposition 1A/Senate Bill 50

Proposition 1A/Senate Bill (SB) 50 (Chapter 407, Statutes of 1998) is a school construction measure authorizing the expenditure of State bonds totaling \$9.2 billion through 2002, primarily for modernization and rehabilitation of older school facilities and construction of new school facilities. \$2.5 billion is for higher education facilities and \$6.7 billion is for K-12 facilities. Proposition 1A/SB 50 implemented significant fee reforms by amending the laws governing developer fees and school mitigation.

- Establishes the base (statutory) amount (indexed for inflation) of allowable developer fees at \$1.93 per square foot for residential construction and \$0.31 per square foot for commercial construction.
- Prohibits school districts, cities, and counties from imposing school impact mitigation fees or other requirements in excess of or in addition to those provided in the statute.

Proposition 1A/SB 50 also prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any “[...] legislative or adjudicative act [...] involving [...] the planning, use, or development of real property” (Government Code 65996(b)). Additionally, a local agency cannot require participation in a Mello-Roos for school facilities; however, the statutory fee is reduced by the amount of any voluntary participation in a Mello-Roos. Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed to be “full and complete mitigation.” The law identifies certain circumstances under which the statutory fee can be exceeded, including preparation and adoption of a “needs analysis,” eligibility for State funding, and satisfaction of two of four requirements (post-January 1, 2000) identified in the law including: year-round enrollment, general obligation bond measure on the ballot over the last four years that received 50 percent plus one of the votes cast, 20 percent of the classes in portable classrooms, or specified outstanding debt. Assuming a district qualifies for exceeding the statutory fee, the law

establishes ultimate fee caps of 50 percent of costs where the State makes a 50 percent match, or 100 percent of costs where the State match is unavailable. District certification of payment of the applicable fee is required before the City or County can issue the building permit.

Quimby Act

California Government Code Section 66477, Subdivision Map Act, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The required dedication and/or fees are based upon the residential density, parkland cost, and other factors. Land dedication and fees collected pursuant to the Quimby Act may be used for acquisition, improvement, and expansion of park, playground, and recreational facilities or the development of public school grounds.

LOCAL

Northeast Quadrant Specific Plan

The NEQSP contains the following policies regarding police and fire protection. There are no policies that address schools, parks or library services.

6.11.6 FIRE PROTECTION

1. All development projects in the plan area should be reviewed by the City Dixon Fire Department for the inclusion of fire prevention measures and access requirements. Coordination with the fire department early in the project design stage is encouraged. for the inclusion of fire prevention measures and access requirements. Coordination with the fire department early in the project design stage is encouraged.
2. Each PD, or equivalent mechanism, including an industrial use shall prepare detailed calculations to determine fire protection water needs as based on specific facility design requirements.

6.11.7 POLICE PROTECTION

1. Police department review of all development proposals will be required in the project review process. Coordination with the police department early in the project design stage is encouraged.
2. Private security features such as alarm systems, security lighting and quality door and window hardware are encouraged.

City of Dixon General Plan

The City of Dixon General Plan contains the following goals, policies, and standards that are relevant to public services:

PUBLIC SAFETY

PSF-1.1. Provide responsive, efficient, and effective police services that promote a high level of public safety.

PSF-1.2. Provide fire prevention and emergency response services that minimize fire risks and protect life and property

PSF-1.5. Continue to require that new development make a fair share funding contribution to ensure the provision of adequate police and fire services.

PSF-1.6. Continue to engage the Police and Fire departments in the development review process to ensure that projects are designed and operated in a manner that minimizes the potential for criminal activity and fire hazards and maximizes the potential for responsive police and fire services.

PSF-1.7. Encourage the provision of adequate public lighting, windows overlooking streets or parking lots, paths to increase pedestrian activity within private development projects and public facilities in order to enhance public safety and reduce calls for service.

INTEGRATED PUBLIC FACILITIES

PSF-3.1. Provide community centers, arts/cultural facilities, senior centers and other public facilities, ensuring they are distributed equitably and conveniently throughout Dixon.

PARKS AND RECREATION

PSF-4.1. Expand the network of parks and public spaces and ensure they are equitably distributed throughout the city so that every Dixon resident can access a neighborhood park within one half mile of their home.

PSF-4.2. Maintain a standard of 5 acres of community and neighborhood recreational or park facility for each 1,000 Dixon residents, with a target of 1.2 acres of neighborhood park land and 3.8 acres of community park land per 1,000 residents.

PSF-4.3. Require that proponents of new development projects contribute to the acquisition and development of adequate parks and recreational facilities within the community, either through the dedication of park land or the payment of in-lieu fees.

PSF-4.4. Design and construct parks, public spaces and recreational facilities for flexible use, adaptability over time, and ease of maintenance.

PSF-4.5. Improve access to existing facilities, with emphasis on the young, elderly, and persons with disabilities.

PSF-4.6. Prioritize the maintenance and, where feasible, improvement of parks and recreational facilities to ensure safe, attractive facilities that are responsive to community needs.

PSF-4.7. Continue to provide a range of recreational facilities and programs serving the diverse age and interest groups in the community based on citizen input.

3.14.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on public services if it would result in:

Substantial adverse physical impacts associated with the provisions of new or physically altered government facilities, and/or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

- Fire Protection
- Police Protection
- Schools
- Parks
- Other public facilities

IMPACTS AND MITIGATION MEASURES

Impact 3.14-1: Implementation of the Proposed Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities. (Less than significant)

Fire and Emergency Services

The Fire Department currently operates the station at 205 Ford Way, approximately 1.02 miles from the southern boundary of the Project site. A new fire station, Fire Station 82, is planned to be constructed at the corner of Pitt School Road and Lavender Lane, which would respond to service calls in the southern and western portions of the city. The addition of Station 82 to the City Fire Department would then allow trucks and personnel from the existing fire station to respond more rapidly to service calls in the northern and eastern portions of the city, including the NEQSP area.

3.14 PUBLIC SERVICES AND RECREATION

Response times to the NEQSP area would be under 5 minutes 12 seconds, meeting the City's baseline performance objective.

The current service ratio for the City of Dixon Fire Department is 0.53 firefighters, both paid and volunteers, per 1,000 people (36 firefighters/19,018 people). The proposed Project would include residential development, resulting in the addition of up to 1,041 residential units in total. This would allow for a maximum population of approximately 2,988 residents, based on the person per household rate of 2.87 according to the California Department of Finance E-5 City/County Population and Housing Estimates.⁴

Despite a steady increase in calls for service, the Dixon Fire Department's staffing has largely remained the same since 2006 (Dixon Fire Department, 2022). Current staffing and equipment levels provide an adequate number of firefighters for smaller fires and common medical or rescue situations, supplemented by mutual aid agreements with other local municipalities. Projected buildout population and housing numbers correspond to an increase in need for Fire and Emergency services. However, the General Plan EIR concluded that the fire protection infrastructure maintains acceptable service ratios, response times, and other performative objectives related to fire protection. Furthermore, individual development projects, including the proposed Project, would be subject to Fire Department review and approval and would be required to pay the City's standard public safety impact fees (Policies PSF.1-5 and PSF.1-6). These proactive measures help mitigate fire risk and lessen service demand and are further augmented by other policies that incentivize the retrofit of historic buildings to include fire sprinklers and modern fire-stopping construction techniques, establish a volunteer-based Community Emergency Response Team, and educate the community through various outreach programs about fire safety and disaster preparedness. The City of Dixon has adopted citywide development impact fees, which include Public Safety Impact Fees. The City Council adopts an annual budget allocating resources to fire protection services, which effectively establishes the service ratio for that particular year. The annual budget is based on community needs and available resources as determined by the City Council and the Fire Chief. Therefore, in accordance with existing law, prior to issuance of any building permits for any phase of development, the project applicant shall pay the City's Public Safety Impact Fees. Implementation of the proposed Project would thus not require provision of new or physically altered facilities in order to maintain acceptable police service ratios and response times. Therefore, the proposed Project would have a *less-than-significant* impact to fire protection services.

⁴ Calculated using 2.87 persons per household for the City of Dixon (California Department of Finance, 2023).

Police Service

The current service ratio for the City of Dixon Police Department is 0.67 officers per 1,000 people (28 sworn officers/19,018 people). Police service is evaluated and addressed annually on a city-wide level by the Dixon City Council and Police Chief. The City Council adopts an annual budget allocating resources to police services, which effectively establishes the service ratio for that particular year. The annual budget is based on community needs and available resources as determined by the City Council and the Police Chief. The Department would also continue to receive aid from other police departments such as those from adjacent municipalities in event of emergencies to meet additional need (Policy PSF.1-4). Further, the General Plan EIR concluded that impacts related to increased demand for law enforcement services were determined to be less than significant. The existing Police Department would be sufficient to serve the proposed Project. Therefore, the proposed Project would not require the construction of new or expanded police stations.

The City collects impact fees from new development based upon projected impacts from the development. The City also reviews the adequacy of impact fees on an annual basis to ensure that the fee is commensurate with anticipated future facilities demands, assessed on a fair share basis for new development. Implementation of the proposed Project would thus not require provision of new or physically altered facilities in order to maintain acceptable police service ratios and response times. Payment of the applicable impact fees by the project applicant and other revenues generated by the project would ensure that project impacts to police services are *less than significant*.

MITIGATION MEASURE(S)

None Required

Impact 3.14-2: Project implementation may result in effects on schools (Less than Significant)

The proposed Project would be a residential development, resulting in the addition of up to 1,041 residential units in total. Five lots – Lots 1, 2, 6, 7, and 8 – would be designated for low density residential uses, with density ranges between 4.6 dwelling units per acre (du/ac) and 5.7 du/ac. Low-density residential units would be typical single-family detached units with varying lot and product sizes, totaling 538 units. Three lots – Lots 3, 4, and 5 – would be designated for medium density residential (MDR) uses. Units in those lots would range in density from 7.6 du/ac to 9.3 du/ac, totaling 278 units. Lot 9, in the eastern part of the Project site, immediately south of the DOC, would be comprised of high-density residential (HDR) uses. The 11.54-acre HDR use would be constructed at a density of 19.5 du/ac, resulting in up to 225 units.

The increase in population as a result of Project implementation would result in the introduction of additional students to the DUSD. **Table 3.14-7** presents the estimated increase in student enrollment as a result of the proposed Project.

3.14 PUBLIC SERVICES AND RECREATION

TABLE 3.14-7: STUDENT GENERATION ESTIMATES FOR PROPOSED PROJECT

SCHOOL TYPE	NUMBER OF PROPOSED UNITS	STUDENT GENERATION FACTOR	PROJECTED NUMBER OF STUDENTS OF PROJECT
Elementary	1,041	0.1929	201
Middle		0.0643	67
High		0.1564	163
GRAND TOTAL			431

SOURCE: DIXON UNIFIED SCHOOL DISTRICT RESIDENTIAL DEVELOPMENT SCHOOL FEE JUSTIFICATION STUDY, 2022; SCHOOLWORKS, 2022.

As shown in Table 3.14-7, the proposed Project is expected to generate 431 additional students for the DUSD in total. Students within the Project site would most likely attend Gretchen Higgins Elementary, John Knight Middle School, and Dixon High School, subject to DUSD’s determination. DUSD has a student capacity of 5,241 students, well beyond the current enrollment at all school levels, as seen in Table 3.14-3. Assuming the existing facilities remain in sufficient condition to maintain existing levels of service, the DUSD has an available capacity of 2,030 students. Therefore, DUSD has sufficient capacity to accommodate the new students generated by the proposed Project.

Under the provisions of SB 50, a project’s impacts on school facilities are fully mitigated via the payment of the requisite new school construction fees established pursuant to Government Code Section 65995. On February 23, 2022, the Dixon Unified School District Board of Education updated the statutory fee amounts to \$4.79 per square foot for new residential development and \$0.78 per square foot for new commercial/industrial construction.⁵ Through payment by the applicant or of special assessments by property owners within the project and payment of any applicable impact fees by the project applicant would ensure that project impacts to school services are **less than significant**.

MITIGATION MEASURE(S)

None Required

Impact 3.14-3: Project implementation may result in effects on parks (Less than Significant)

The City of Dixon maintains six public parks, representing approximately 89.85 acres of parkland in the City of Dixon. There are about 18.52 acres of neighborhood parks, 71.33 acres of community parks, and 1.5 miles of trails in the City of Dixon. The City of Dixon adopted the Parks and Recreation Master Plan in 2023, which establishes goals for distances to Neighborhood Parks and Community Parks.

⁵ Dixon Unified School District Board of Education, Developer Fee Justification Study, 2022. Accessed January 16, 2024.

The General Plan and the adopted 2023 Parks and Recreation Master Plan, establishes standards for parkland acreage and access. The City has established a standard of 5.0 acres of community or neighborhood recreational or park facility per 1,000 residents to ensure adequate recreational open space for the enjoyment of the community. To ensure an appropriate balance of local and community-serving facilities, the General Plan and Parks Master Plan recommend a target of 1.2 acres of neighborhood park per 1,000 residents and 3.8 acres of and community park per 1,000 residents for a total of 5 acres per 1,000 residents.

The proposed Project would include the construction of up to 1,041 residential units. This would allow for a maximum population of approximately 2,987 residents, based on the person per household rate of 2.87.⁶ The proposed Project would thus require approximately 14.94 acres of total park space for these additional residents. Approximately 13.42 acres of open space, parks, paseos, and green space are planned in the Proposed Project, as shown in **Table 3.14-8**. This includes the centrally located Campus Green, a 6.06-acre traditional urban park element connecting the tech park to the low-density residential area in the southern portion of the Project site. The north end of the Campus Green would be anchored by a 2.36-acre park within the DOC. A second park site, a 5-acre neighborhood park, would be included on the south end of the Campus Green in the planned low-density residential area. While proposed Project would include open space and extensive multi-use open space, it would fall short of the parkland requirement by 1.52 acres.

TABLE 3.14-8: THE CAMPUS PARKLAND

<i>PARKS AND OPEN SPACE</i>	<i>ACREAGE</i>
Lot 14	2.36
Lot 15	1.64
Lot 16	1.58
Lot 17	1.42
Lot 18	1.42
Lot 19	5.00
The Campus Total	13.42
Parks Required (5,0 acres / 1,000 residents)	14.94
Meet Requirement?	No - 1.52-acre shortfall

SOURCE: DE NOVO PLANNING GROUP, 2024.

The Parks Master Plan also lists the service area for a neighborhood park as a half-mile radius, typically translated to a 10-minute walking distance, or walkshed. The distribution of parkland throughout the community is relatively balanced; most residents live within a half-mile walk of a park or recreational facility. Development of new facilities in the proposed Project will ensure the access standard of a half-mile is maintained throughout the Project site.

⁶ State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2021-2023. Accessed January 16th 2024.

The City collects impact fees for parks from new development based upon projected impacts from the development. The City also reviews the adequacy of impact fees on an annual basis to ensure that the fee is commensurate with anticipated future facilities demands, assessed on a fair share basis for new development. Additionally, Section 4.07.040 of the City's Municipal Code outlines the establishment of the park and recreation facilities impact fee in lieu of parkland dedication. The project applicant would be required to pay the in-lieu parkland fee as determined by the City to address the parkland shortfall. Payment of the Project's in lieu park fee and development impact fees would ensure that the City requirements are satisfied, resulting in a *less than significant* impact.

MITIGATION MEASURE(S)

None Required

Impact 3.14-4: Project implementation may result in effects on other public facilities (Less than Significant)

The proposed Project will bring residents to the area and increase demand for other public facilities within the City of Dixon, such as libraries and community buildings. However, given that the additional population increase associated with the project is a small percentage of the population of the City as a whole, significant impacts due to increased demand on library and community facilities are not expected. The City collects impact fees from new development based upon projected impacts from each development, including impacts on other public services as required by Chapter 4.07 Capital Facilities Fees of the City's Municipal Code. The City also reviews the adequacy of impact fees on an annual basis to ensure that the fee is commensurate with services provided. Payment of the applicable impact fees by the Project applicant, and ongoing revenues that would come from property taxes, sales taxes, and other revenues generated by the proposed Project, would fund capital and labor costs associated with these other public services. The proposed Project does not trigger the need for new facilities associated with other public services. Consequently, new facilities for other public services are not proposed at this time. Payment of the applicable impact fees by the project applicant and other revenues generated by the project would ensure that project impacts to other public facilities are *less than significant*.

MITIGATION MEASURE(S)

None Required

CUMULATIVE IMPACTS

Cumulative setting would include all areas covered in the service areas of the Dixon Fire Department (DFD), Dixon Police Department (DPD), the City of Dixon Parks and Recreation Division, the Dixon Unified School District (DUSD), and any other relevant public services.

Impact 3.1-5: Implementation of the proposed Project, in combination with other cumulative development, would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities. (Less than Significant)

This analysis evaluates whether the impacts of implementation of the proposed Project, together with the impacts of cumulative development, would result in a cumulatively significant impact with respect to fire protection facilities, police protection facilities, school facilities, library facilities, parks or recreational facilities, and other municipal services.

FIRE PROTECTION SERVICES

The geographic context for the analysis of cumulative impacts related to fire protection services includes the DFD service area. A significant cumulative environmental impact would result if this cumulative growth exceeded the ability of DFD to adequately serve their service area, thereby requiring construction of new facilities or modification of existing facilities. Development anticipated under the Dixon General Plan would require additional facilities beyond the existing singular fire station in the city. Fire Station 82 located at the corner of Pitt School Road and Lavender Lane in the Southwest Dixon Specific Plan area is scheduled to come online in the next few years. The addition of this station would double the City's firefighting capacity and help meet service demands as the City grows.

Implementation of General Plan policies would ensure the adequacy of service by monitoring service areas, encouraging development patterns that facilitate efficient delivery of service, and improving emergency access by removing significant barriers and enforcing design standards, all of which would help minimize increases in service needs (Policies LCC.1-3, LCC.1-8, LCC.1-9, PSF.1-2, PSF.1-3, and PSF.1-9). Furthermore, individual development projects would be required to pay the City's standard public safety impact fee, in compliance with General Plan Policies PSF.1-5 and PSF.1-6. Cumulative growth in the City would maintain acceptable service ratios, response times, and other performative objectives related to fire protection such that development of a new or expansion of an existing station would not be required. Therefore, the cumulative impact would be ***less than significant***.

POLICE PROTECTION FACILITIES

The geographic context for the analysis of cumulative impacts related to police protection facilities includes the Dixon Police Department service area, which comprises the City of Dixon. A significant cumulative environmental impact would result if cumulative growth exceeds the ability of the

Department to adequately serve its service area, thereby requiring construction of new facilities or modification of existing facilities.

Although the City is served by only one police station, the Dixon Police Department is evaluating its existing building to determine whether unused space on the second floor could be used to house additional police services. Plans are currently under development and will be funded by Police impact fees and a recently Federally-acquired grant.

Development of growth anticipated under the General Plan would increase the demand for law enforcement services, which could increase response times or result in the Department not reaching its service goals. In the event of an emergency, the Department would continue to receive mutual aid from additional police departments for which they have a mutual services agreement. Regular updates to the City's Municipal Services Review and collection of the City's public safety impact fee from new development would identify and provide financing tools to fund and maintain facility improvements that help to provide services adequate for development and growth (General Plan Policy PSF.1-5 and Implementing Actions LCC.1-C, LCC.1-E, and LCC.1-F).

Therefore, cumulative development could be served by the existing police facilities in the city, and no new facilities would be required. Therefore, the cumulative impact would be ***less than significant***.

SCHOOL FACILITIES

The geographic context for the analysis of cumulative impacts related to school facilities includes the Dixon Unified School District. Regional growth resulting from past, present, and reasonably foreseeable projects would result in increased demand for additional school facilities within the DUSD serving the City of Dixon. Like development in Dixon, the schools are expected to receive development impact fees from cumulative development. Developer payment of standard school impact fees would cover a fair share of any need for new or altered school facilities, and as provided by California Government Code Section 65996, the payment of such fees is deemed to fully mitigate the impacts of new development on school services.

Further, facilities capacity exceeding enrollment due to projects enabled by Measure Q bond proceeds and the District's Facilities Master Plan, there is no need for further expansion or construction of new facilities to serve the District. Therefore, the cumulative impact on schools would be ***less than significant***.

PARKS AND RECREATIONAL FACILITIES

The geographic context for the analysis of cumulative impacts of parks and recreational facilities includes those located within the City boundary. A significant cumulative environmental impact would result if this cumulative growth resulted in an increase in the use of existing parks and recreational facilities, such that substantial physical deterioration of the parks or recreational facilities would occur, be accelerated, to require the construction of new parks and recreational facilities or modification of existing parks and recreational facilities.

The City's parkland standard is the provision of 5.0 acres of overall parkland, 1.2 acres of neighborhood parkland and 3.8 acres of community parkland per 1,000 residents. The City's current ratio is approximately 4.8 acres per 1,000 residents. Specifically, the provision of neighborhood parks is below the City's established threshold.

The Dixon Parks Master Plan identifies existing park facilities and future needs such that the development of additional facilities can grow with the City's population. Compliance with the Parks Master Plan, development of pipeline parks identified in the Parks Master Plan, and adherence the policies set forth in the General Plan would ensure that adequate parks and recreation facilities are provided as new development comes online. Future development would be required to contribute to acquisition or development of adequate parks and recreational facilities through dedication of parkland or pay in-lieu fees (General Plan Policies LCC.5-6 and PSF.4-3). Therefore, the cumulative impact to parks and recreation facilities would be ***less than significant***.

LIBRARY FACILITIES

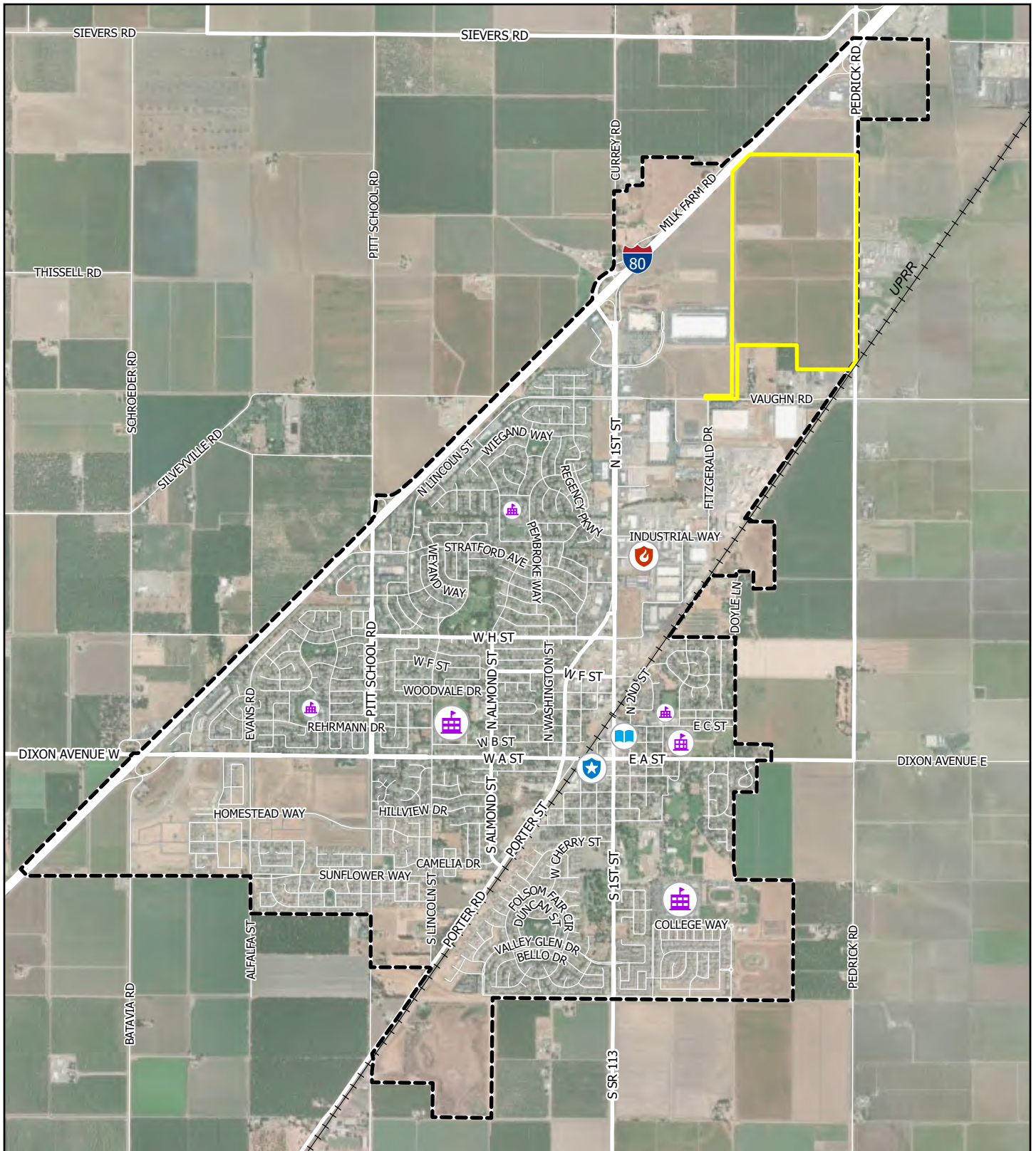
The geographic context for analysis of cumulative impacts to library facilities includes the Dixon Carnegie Library. A significant cumulative environmental impact would result if cumulative growth exceeded the ability of the Dixon Carnegie Library to adequately serve people within their service area, thereby requiring construction of new facilities or modification of existing facilities. Compliance with the General Plan would ensure that library services are expanded. All cumulative projects would be required to comply with City ordinances and other policies that address library facilities and services. Therefore, the cumulative impact to libraries would be ***less than significant***.

OTHER MUNICIPAL SERVICES

The geographic context for analysis of cumulative impacts to other municipal services is the City. Cumulative development in the City would increase the demand for various municipal services. Future development in the City would comply with General Plan policies and implementing actions to increase the provision of municipal services as the City's population increases. The allocation of financing for other municipal services is determined annually by the City Council based upon local needs and resources. For these reasons, the cumulative impact on municipal services would be ***less than significant***.

MITIGATION MEASURE(S)

None Required



LEGEND

- The Campus Project Site
- Dixon City Boundary
- Dixon Fire Station
- Dixon Police Department
- Dixon Library
- Elementary School
- Middle School
- High School

THE CAMPUS EIR

Figure 3.14-1. Public Service Facilities



Sources: Google Maps; Solano County GIS; ArcGIS Online World Imagery Map Service; CalTrans, Map date: April 25, 2024.

This chapter describes the regulatory framework and existing conditions for the Northeast Quadrant Specific Plan (NEQSP) area related to transportation, and the potential transportation-related impacts of the proposed Project. This chapter will describe the transportation and circulation implications of project implementation, addressing roadways, transit, pedestrian, and bicycle access, potential Vehicle Miles Traveled (VMT) impacts, design- or incompatible use hazards, and adequacy of emergency access.

Sources used in the preparation of this chapter include the Traffic Impact Analysis (TIA) prepared by Flecker Associates (March 2024) and the VMT Assessment Memo prepared by DKS Associates (February 2024). In addition, local planning documents were referenced including the Northeast Quadrant Specific Plan (July 2023), Dixon Streets Master Plan (2021), Dixon General Plan 2040 (May 2021), Dixon Senate Bill 743 Implementation Procedures (January 2022), and the Dixon Area Advanced Traffic and Railroad Safety Study (October 2021).

Several comment letters referencing transportation were received on the Notice of Preparation (NOP):

The **City of Davis, Department of Community Development and Sustainability** requested that the impact of the proposed Project on the Pedrick Road to Hutchison Drive/Russell Road as well as eastbound Interstate 80 be addressed. Although potential increased roadway congestion is not considered an impact under CEQA, operational impacts that might lead to hazardous conditions could be a potential impact. Note that the Dixon Traffic Model does not cover the City of Davis but can provide an estimate of daily vehicle trips associated with the Project that travel on eastbound I-80 or northbound on Pedrick Road towards Russell Road. As such, potential queuing impacts at the Interstate-80 (I-80) ramp intersections north of the Project were examined for the TIA.

Caltrans District 4 emphasized the importance of efficient development patterns, innovative travel demand reduction strategies, and multimodal improvements. Caltrans also emphasized the importance of projects adhering to screening criteria outlined in the City's VMT policy. All these issues are addressed in this chapter and the City's VMT policy has been followed in the cited VMT impact analysis.

The **Solano County Department of Resource Management** provided several transportation-related comments as summarized below:

- High density residential usage proposed in the Project will create significant traffic and congestion impacts to county roads and connectors and potential local and regional traffic and road impacts should be thoroughly examined and mitigated.
- Ingress and egress points should be designed to minimize impacts to existing agricultural support facilities and processing plants.
- Impacts associated with the Pedrick Road and I-80 intersection and potential traffic conflicts with proposed urban development and the commercial agricultural and industrial development and industrial operations on Pedrick Road and other county roads should be analyzed.
- Recommended project to be designed such that roads and intersections do not significantly impact existing agricultural support facilities and trucking routes associated with the Campbells facility.
- Adequate mitigation should be specified for VMT from trips generated to reach the services needed to support residential development.

3.15.1 ENVIRONMENTAL SETTING

The Project will be constructed in the City's NEQSP area. Existing access to the site is provided by a two-lane rural highway, Pedrick Road. The Project proposes to modify the circulation network proposed in the NEQSP with construction of several new roadways that will bound and provide access to and within the site. The existing and currently planned roadway, transit, bicycle, and pedestrian transportation systems within the study area are described below.

Roadway System

The Mobility Element of the 2040 General Plan¹ defines the different roadway system functional classifications as summarized in **Table 3.15-1**. **Figure 3.15-1** depicts the proposed circulation system to support development in Dixon. The system is represented by a set of roadway classifications that have been developed to guide long range transportation planning in Dixon to balance access and capacity.

TABLE 3.15-1: DIXON ROADWAY CLASSIFICATIONS

<i>CATEGORY</i>	<i>FUNCTION</i>	<i>TYPICAL DESIGN FEATURES</i>
Arterial	Provides mobility and carries higher vehicular traffic volumes.	One-two lanes each direction with left turn pockets or center left turn lane and bicycle facilities.
Minor Arterial/Major Collector	Connects principal arterials and provides access to individual neighborhoods and some individual properties.	One lane each direction, bicycle lanes, limited on-street parking.
Collector	Provides route through neighborhoods between arterials and minor arterial/major collector facilities as well as access to individual properties. Lower volumes and speeds suitable for bicycle routes.	One lane each direction with on-street parking.
Local Streets	Provides access to individual properties. Lower volumes and speeds suitable for bicycle routes. Should receive no more than 1000 vehicles per day in traffic.	One lane each direction with on-street parking.
Historic Main Street	Provides mobility and carries higher vehicular traffic volumes but also access to historic residential properties and downtown businesses.	One lane each direction with on-street parking and street trees, planting strip, and/or distinctive street lighting.

SOURCE: DIXON STREETS MASTER PLAN (2021)

The existing roadway system near the Project is described below:

Interstate 80 (I-80): Regional access to and from the Project site is provided by this six-lane freeway facility operated by Caltrans. Existing ramp terminals are located at Pedrick Road/Sparling Lane (eastbound I-80) and Pedrick Road/Sievers Road (westbound I-80). All ramp terminals are currently stop-controlled intersections.

Pedrick Road: Pedrick Road is a north-south rural highway with one travel lane in both directions. Pedrick Road connects the eastern areas in Dixon to I-80. Near the project area, there are currently no pedestrian or cycling facilities on Pedrick Road. In the 2021 General Plan, Pedrick Road from I-80 south to Midway

¹ City of Dixon Planning Department. 2040 General Plan Mobility Element. Adopted May, 2021.

Road is planned as a four-lane arterial facility. The NEQSP, originally adopted in 1995 and more recently updated in 2009, also notes that Pedrick Road is planned as a four-lane facility. The NEQSP also notes that the roads will be constructed based on specific applications in the PUD review process or an equivalent mechanism. The City of Dixon's boundary currently runs along the centerline of Pedrick Road from approximately 1,200 feet south of Sparling Lane to the Union Pacific Railroad (UPRR) tracks. South of the UPRR tracks, Pedrick is a Solano County road.

Vaughn Road: Vaughn Road is an east-west arterial roadway with one travel lane in each direction. Near the project area, Vaughn Road has painted (Class II) bike lanes in each direction. Sidewalks are present only on the south side between Kids Way and approximately 1,100 feet west of Fitzgerald Drive. Vaughn Road is currently planned as a four-lane arterial within the Dixon city limits. The City of Dixon has long planned to realign Vaughn Road to a new grade-separated connection with Pedrick Road north of the existing at-grade crossing with the UPRR railroad tracks. The Project proposes to modify this plan by constructing Commercial Drive in lieu of the Vaughn Road realignment. The Vaughn Road/UPRR crossing would be eliminated after the realignment or construction of Commercial Drive.

Pedestrian System

There are minimal pedestrian facilities in the project area. Currently, the pedestrian system in the site vicinity consists of sidewalks along the frontage of North 1st Street, the existing Dorset Drive, and portions of Vaughn Road.

Bicycle System

The City of Dixon's existing and planned bicycle facilities are classified as follows:

- Bicycle paths or Class I facilities are completely separated from streets, provide two-way bicycle travel, and are often shared with pedestrians.
- Bicycle lanes or Class II facilities provide dedicated roadway space for bicyclists, separate from motor vehicle traffic and parking lanes. Bicycle lanes are designated using striping, pavement markings, and signs.
- Bicycle routes or Class III facilities are streets specifically designated for bicyclists to share with motor vehicle traffic and are designated using signs. Bicyclists ride in the travel lane with motorists or on the shoulder. Bicycle routes may include shared lane pavement markings or warning signage. Bicyclists may ride on all local streets, regardless of whether they are designated a bicycle route, unless expressly prohibited.
- Bikeways or Class IV facilities is a bikeway for the exclusive use of bicycles and includes a separation between the separated bikeway and the through vehicular traffic.

The bicycle system within the site vicinity consists of painted Class II bike lanes along North 1st Street, Dorset Drive, and Vaughn Road. The Dixon 2040 General Plan plans for a Class I multi-use path on Pedrick Road along the project extent, and Class II bicycle lanes connecting the future Dorset Drive to Pedrick Road. The proposed bicycle network from the General Plan is shown in **Figure 3.15-2**.

Transit System

The area in the project vicinity is served by the 'Readi-Ride' Transit service, a public dial-a-ride service provided within the city limits. Service is scheduled on a reservation, space-available basis. The system operates Monday, Tuesday, Thursday, and Friday from 7:00 am to 12:00 pm and from 1:00 pm to 4:00 pm, and on Wednesday from 7:00 am to 11:00 am and 12:00 pm to 4:00 pm.

Regional bus service is provided by Solano Transit (SolTrans). Route B is the only route with stops in Dixon. The 'B' makes a single stop at the Dixon Park and Ride located at Pitt School Road and Market Lane. Southbound, there are 12 runs Monday through Friday with service at Dixon Park and Ride beginning at 6:05 am and ending at 6:18 pm. Northbound, there are 12 runs to the Dixon Park and Ride beginning at 6:49 am and ending at 6:38 pm. SolTrans provides Saturday service between Dixon and the Walnut Creek BART station. Six runs are provided in each direction, with southbound service operating between 6:15 am and 4:45 pm, and northbound service operating between 9:33 am and 8:03 pm.

Proposed Access and Circulation

The Campus project site is located within the City's NEQSP area and comprises nearly 40 percent of the plan's total 643+/- acres. The Project site is situated on the eastern edge of the NEQSP adjacent to Pedrick Road. The site is bounded by Pedrick Road with Solano County unincorporated agricultural lands to the east, by lands designated for industrial use to the north and south, and by lands designated as regional commercial and industrial to the west.

Current property access is provided by an existing roadway (Pedrick Road) along the eastern boundary of the site. In accordance with the NEQSP, a future four-lane arterial (Professional Drive) would be situated along the site's western and northern boundaries. As outlined in the NEQSP and prior entitlements west of the site, the planned extension of Dorset Drive would connect to Professional Drive near the center of The Campus, offering vehicular and pedestrian connectivity to the numerous commercial and industrial uses currently under development west of the project. Campus Parkway is envisioned to form the north-south backbone of The Campus' internal circulation network.

Additionally, as detailed in the proposed amendment to the NEQSP, the planned Vaughn Road cut-off at the southern end of the Project site is proposed to be named "Commercial Drive," as specified in the original NEQSP. This designation would facilitate traffic flow from Professional Drive to Pedrick Road and support the termination of Vaughn Road, thereby eliminating the Vaughn Road railroad crossing. The intersection of Commercial Drive and Pedrick Road is strategically located to allow for the future construction of an overcrossing over the UPRR railroad. Vaughn Road is anticipated to be widened to four lanes up to Professional Drive, continuing as a two-lane road to its terminus west of the UPRR tracks.

The project proposes the construction of the eastern and southern halves of the future four-lane arterial for Professional Drive, with interim operations as a two-lane arterial. Professional Drive would extend south along the west side of the roadway to provide a connection to the existing Vaughn Road. Additionally, the project involves the widening of Pedrick Road adjacent to the project frontage.

The project's internal circulation network and connections to existing and planned roadway facilities are illustrated in **Figure 3.15-3**.

3.15.2 REGULATORY SETTING

The following section outlines the legal, regulatory, and planning framework that governs transportation and traffic analysis in the project area.

Within the study area most streets are under City of Dixon jurisdiction. The City of Dixon's boundary currently runs along the center line of Pedrick Road from approximately 1,200 feet south of Sparling Lane to the UPRR railroad tracks. South of the UPRR tracks, Pedrick Road is under Solano County jurisdiction.

STATE

State Senate Bill 743

Signed into law in 2013, Senate Bill 743 (SB 743) updated the way transportation impacts are measured in California for new development projects. In accordance with SB 743 and the resulting changes to the CEQA Guidelines published by the Natural Resources Agency, local agencies may no longer use measures of vehicle delay, such as Level of Service (LOS), to quantify transportation impacts on the environment. VMT has been codified in the CEQA Guidelines as the most appropriate measure for measuring transportation impacts under CEQA. This change went into effect statewide on July 1, 2020. The technical guidance published by the Governor's Office of Planning and Research (OPR) recommends that local jurisdictions determine the significance threshold for transportation impacts based on local conditions.

California Department of Transportation

Caltrans is responsible for the planning, design, construction, and maintenance of all interstate freeways and State routes, setting design standards for State roadways that local governments may use. Caltrans requirements for traffic impact studies are outlined in their Guide for the Preparation of Traffic Impact Studies, focusing on the review of impacts on State highway facilities such as freeway segments, on- and off-ramps, and signalized intersections.

In May 2020, Caltrans adopted the VMT-Focused Transportation Impact Study Guide (TISG) for compliance with SB 743, replacing the 2002 guide for traffic impact studies, directing lead agencies on local land use projects. Caltrans TISG specifies that development projects meeting the screening criteria of the City's adopted VMT policy with a presumed less-than-significant VMT impact require justification for the exempt status, aligning with the City's VMT policy.

Projects not meeting screening criteria must include a detailed VMT analysis in the DEIR, which should cover:

- VMT analysis according to the City's guidelines, indicating significant impact if automobile VMT per capita exceeds the threshold of significance based on city-wide or regional values for similar land use types. Mitigation for increasing VMT should be identified if necessary, with measures enforceable through permit conditions, agreements, or legally-binding instruments under the City's control.
- A schematic illustration of walking, biking, and auto conditions at the project site and study area roadways.

- Evaluation of the project's primary and secondary effects on pedestrians, bicycles, travelers with disabilities, and transit performance, including countermeasures and trade-offs from mitigating VMT increases. Access to pedestrian, bicycle, and transit facilities must be maintained.

Within the study area, Interstate 80 (I 80) and State Route 13 (SR 13), known as First Street within Dixon city limits, are Caltrans facilities.

REGIONAL

Solano Transportation Authority

The Solano Transportation Authority (STA) is a joint powers agreement among Solano County cities, including Dixon and the County of Solano that also serves as the Congestion Management Agency. The STA oversees countywide transportation planning, programming of transportation funds, managing and providing transportation and transit programs and services, and delivering transportation projects. Countywide transportation planning documents relevant to the study area include the Countywide Transportation Plan 2020 (currently being updated) and the 2020 Active Transportation Plan.

Near the study area, North First Street is a designated route of regional significance and is designated a Rural Major Arterial².

SOLANO COUNTY CONGESTION MANAGEMENT PROGRAM

Congestion Management Program (CMP) serves as a tool for monitoring mobility and planning in California counties that have an urbanized area with a population exceeding 200,000. It was established by legislation in 1991. The local Congestion Management Agency (CMA) is tasked with preparing, monitoring, and updating the CMP to manage and alleviate traffic congestion.

California law mandates that each CMA maintain an adopted CMP network. The focus is on including regionally significant roadways, such as freeways and highways, to effectively monitor congestion. The CMP aims to identify and implement a Capital Improvement Program comprising projects designed to mitigate identified congestion issues. All State-owned roadways within Solano County must be included in the CMP, alongside several principal arterials and intersections that have regional significance. The 1990 CMP legislation specifically requires that traffic congestion on each segment of the designated CMP network be monitored using the Level of Service (LOS) standard.

Near the study area, State Route 113 (North First Street) is recognized both as a Route of Regional Significance and a designated CMP roadway facility. The CMP designates LOS "F" as the standard for SR-113 near the study area.

Solano County

Solano County currently has jurisdiction over the eastern half of Pedrick Road between the I-80 ramp intersections and Vaughn Road. Pedrick Road is a County road south of Vaughn Road. Other County roadways that might be affected by the proposed Project include Currey Road, Mace Boulevard, Midway

² Solano County. *Solano County Routes of Regional Significance*. 2020

Road, Pedrick Road, Pitt School Road, Robben Road, Sievers Road, Sparling Lane, Tremont Road, and Vaughn Road. Any necessary improvements to Pedrick Road or other County roads will need to be coordinated with Solano County and follow applicable design standards.

LOCAL

Northeast Quadrant Specific Plan

The specific plan circulation system provides a range of transportation modes for the safe and efficient movement of people and materials. Circulation includes public transit, public streets, pedestrian paths, bikeways, and potential future public transit connections to commuter rail service. Most notably, the plan incorporates a system of bicycle and pedestrian paths which provides direct access to supporting land uses in order to facilitate a reduction of vehicular traffic.

The following are applicable policies related to transportation, traffic, and circulation from the NEQSP.

4.9.1 STREET SYSTEM AND LAYOUT

1. Right-of-way locations for landscape corridors and pathways for all arterial and collector roadways are as indicated on Typical Arterial and Typical Collector Street sections as shown in Figures 4-3, 4-4, and 4-5.
2. Landscape corridors should be granted as landscape easements over private property. All landscape corridors are to be landscaped consistent with the provisions of the Form and Design Section (Section 3).
3. Driveways along primary plan arterials should be limited and restricted to points approved by the City. Parking on all arterial streets should be prohibited by posting.
4. Intersections of collector streets with arterial streets should be kept to a minimum. Collector streets should not intersect with a major arterial street closer than 300 feet from another collector/arterial intersection.

4.9.2 LEVEL OF SERVICE

1. Level of service at plan area roadways and intersections shall maintain the Level of Service (LOS) standards contained in the City of Dixon General Plan.

4.9.3 BIKEWAYS/PEDESTRIAN PATHWAYS

1. Bicycle and pedestrian circulation systems should be designed to minimize conflicts with the vehicular circulation system. Separation of the cyclist/pedestrian from the automobile should be provided to the extent feasible.
2. Bike paths doubling as pedestrian walks should be a minimum of eight feet wide and should be constructed of concrete or asphalt. Bikeways should not vary from a straight line by more than eight feet in 100 feet of length. Landscaping and berming where feasible should be used to separate pedestrian/bicycle paths from streets. All pedestrian sidewalks must be handicap accessible with curb cuts at all intersections.

3. All lighted intersections along arterial roadways should incorporate enhanced pedestrian crossing points. The crossings may include paving treatment, increased distance between the crosswalk and vehicle limit line, and where applicable, widened median rest areas.

4.9.4 PUBLIC TRANSPORTATION

1. Alternatives to the automobile as the primary means of transportation shall be encouraged. Public transportation services, such as those provided by Dixon Redi-Ride, shall be accommodated in the arterial and collector street system. Consider expanding Dixon Redi-Ride to the plan area as demand for these services increases.
2. Bus turnouts and shelters should be located consistent with City improvement standards. Turnouts should be provided at the time of roadway installation. Shelters and benches should be provided by adjacent projects at the time of construction unless otherwise required by the City.
3. The plan area shall participate in efforts to promote future shuttle linkage with the downtown rail transit station.

4.9.5 PARK AND RIDE & RIDESHARING

1. In all cases, park and ride spaces are to be clearly marked through pavement markings and directional signage. Spaces should be reserved exclusively for park and ride on Monday through Friday, from 6:30 a.m. to 6:30 p.m.
2. A portion of the park and ride spaces may be included in the normal parking required for a planned business or commercial use if the peak use of the park and ride does not coincide with peak use of the business and commercial use and if approved by the City.
3. Plan area employers shall provide ridesharing facilities to encourage alternatives to automobile commuting including vanpool and carpool parking.

4.9.6 TRANSPORTATION SYSTEM MANAGEMENT

1. Employers should be encouraged to participate in the Transportation System Management Program. Projects within the plan area will need to achieve future trip reduction levels.
2. Bike racks, storage facilities, lockers, and showers serving employee shall be provided by all plan area land uses.
3. Applications for all PDs should include a transportation plan, or other mechanism, detailing trip reduction measures to implement TSM.

4.9.7 PEDESTRIAN SAFETY

1. To ensure pedestrian safety, public pathways shall be well lit and located in areas of view from adjacent buildings and public spaces. Locations where pedestrian paths cross roadways shall be denoted with special accent material to specifically denote a pedestrian crossing and to alert passing vehicular traffic. All pedestrian crossings shall be appropriately lit.
2. The main pedestrian paths should be constructed of concrete. However, smaller paths and jogging trails may utilize other materials such as asphalt or decomposed granite, providing there is a mechanism to ensure trail maintenance and upkeep.

Dixon General Plan 2040

The Dixon General Plan 2040 outlines goals and policies that coordinate the transportation and circulation system with planned land uses. The General Plan states that Dixon aims to have all intersections operate at LOS “D” or better. The City will measure vehicular LOS based on the methodology contained in the latest version of the Highway Capacity Manual (HCM) published by the Transportation Research Board, as shown in **Table 3.15-2**.

It is important to note that LOS as described within this chapter is included anecdotally to evaluate compliance with local regulations and address community concerns about traffic congestion and access. Historically, LOS, which measures the performance of roadways based on delay and congestion, was the standard metric for assessing transportation impacts under CEQA. However, the adoption of SB 743 shifted the focus towards VMT to better align transportation planning with state goals related to greenhouse gas emissions reduction, the promotion of multimodal transportation, and the reduction of dependency on single-occupancy vehicles.

TABLE 3.15-2: INTERSECTION LEVEL OF SERVICE CRITERIA

LEVEL OF SERVICE	AVERAGE CONTROL DELAY (SECONDS/VEHICLE)	
	SIGNALIZED INTERSECTIONS	UNSIGNALIZED INTERSECTIONS
A	Delay ≤ 10.0	Delay ≤ 10.0
B	10.0 < Delay ≤ 20.0	10.0 < Delay ≤ 15.0
C	20.0 < Delay ≤ 35.0	15.0 < Delay ≤ 25.0
D	35.0 < Delay ≤ 55.0	25.0 < Delay ≤ 35.0
E	55.0 < Delay ≤ 80.0	35.0 < Delay ≤ 50.0
F	Delay > 80.0	Delay > 50.0

SOURCE: CHAPTER 19: SIGNALIZED INTERSECTIONS, CHAPTER 20: TWO-WAY STOP-CONTROLLED INTERSECTION, AND CHAPTER 21: ALL-WAY STOP-CONTROLLED INTERSECTIONS IN THE HIGHWAY CAPACITY MANUAL – 7TH EDITION (TRANSPORTATION RESEARCH BOARD 2022)

The following are applicable policies related to transportation, traffic, and circulation from the Transportation Element of the Dixon General Plan.

Policy NE-4.12 Ensure adequate firefighting infrastructure, including water supply and pressure, road and building clearance for firefighting vehicles, and clear and legible street signage throughout the community.

Policy NE-4.32 Require new development to be served by at least two access points.

GOAL M-1: Plan, design, construct, and maintain a transportation network that provides safe and efficient access throughout the city and optimizes travel by all modes.

Policy M-1.1 Maintain a transportation network that is efficient and safe, that removes barriers (e.g. accessibility near freeways and rail lines), and that optimizes travel by all modes.

Policy M-1.3 Design, construct, operate, and maintain city streets based on a “complete streets” concept that enables safe, comfortable, and attractive access and travel for pedestrians, bicyclists, motorists, and transit users of all ages and abilities.

Policy M-1.4 Make safety the first priority of citywide transportation planning. Prioritize pedestrian, bicycle and automobile safety over motor vehicle level of service and motor vehicle parking.

Policy M-1.5 Increase accessibility for and use of streets by pedestrians, bicyclists, and transit riders through appropriate roadway modifications and improvements.

Policy M-1.6 Ensure that improvements to the transportation network support a land use pattern that connects the community, integrates neighborhoods, provides multi-modal access and facilitates travel among Dixon’s neighborhoods.

Policy M-1.7 Coordinate transportation planning with emergency service providers to ensure continued emergency service operation and service levels.

Policy M-1.9 Require new residential development projects to implement best practices for street design, stormwater management and green infrastructure.

GOAL M-2: Manage the city's transportation system to minimize congestion, improve flow and improve air quality.

Policy M-2.1 Ensure that the street network functions for the automobile, yet is easily accessible, safe, and convenient for other modes of travel and for users of all ages, abilities, and income levels.

Policy M-2.2 Prioritize pedestrian, bicycle, and automobile safety over traffic flow.

Policy M-2.4 Maintain a minimum level of service of "D" citywide for planning purposes.

Policy M-2.5 Improve east-west circulation in Dixon, with a particular focus on A Street, First Street and Pedrick Road grade crossings of the rail line.

Policy M-2.7 Decrease dependence on single-occupant vehicles by increasing the attractiveness of other modes of transportation.

Policy M-2.8 Require traffic studies for new development to include analysis of intersections, roadway segments, and alternative modes of transportation and facilities that may be affected by development proposals.

Policy M-2.9 Recognize uncongested access to the freeway from employment areas in the north of the city as a competitive advantage for Dixon and prioritize improvements accordingly.

Policy M-2.10 Ensure adequate emergency vehicle access in all areas of Dixon by continuing to involve the Police and Fire Departments in the development review process.

Policy M-3.2 Ensure that new development provides physical connections to surrounding neighborhoods.

GOAL M-3: Facilitate convenient and safe pedestrian, bicycle, transit, and vehicular connections between neighborhoods and to destinations in Dixon and neighboring communities.

GOAL M-4: Facilitate travel within the city and to surrounding communities by alternatives to the automobile and reduce vehicle miles travelled.

Policy M-4.3 Increase bicycle ridership for work, errands and leisure trips.

Policy M-4.5 Encourage pedestrian-friendly design features in new development such as sidewalks, street trees, on-street parking, gathering spaces, gardens, outdoor furniture, art and interesting architectural details.

Policy M-4.6 Enhance the existing bicycle/pedestrian network by adding planting pockets with street trees to provide shade, calm traffic and enhance the pedestrian realm, prioritizing routes that link destinations such as employment centers, commercial centers, schools and downtown Dixon.

Policy M-4.7 Continue to implement traffic calming measures to slow traffic on local and collector residential streets and contribute to the safety of non-motorized road users.

GOAL M-6: Provide for safe, efficient goods movement by road and rail.

Policy M-6.1 Maintain designated truck routes within Dixon and regulate truck traffic to allow for both economic development and a high quality of life in residential neighborhoods.

Policy M-6.2 Continue to coordinate with State and regional agencies on the planning and implementation of the regional transportation system.

City of Dixon Engineering Design Standards

The City's Engineering Design Standards define the minimum acceptable operation level for intersections and include thresholds to determine if a transportation impact is significant and requires improvements to address adverse effects. Note that adverse effects in terms of increased vehicular delays are not considered impacts for CEQA purposes but this information is presented as a local policy.

Signalized Intersections: A project is considered to have a significant effect if it would:

- Result in a signalized intersection operating at an acceptable LOS (LOS D or better) to deteriorate to an unacceptable LOS; or
- Increase the average delay by more than 2 seconds at a signalized intersection that is operating at an unacceptable LOS without the project.

Unsignalized Intersections: A project is considered to have a significant effect if it would:

- Result in an unsignalized intersection movement/approach operating at an acceptable LOS to deteriorate to an unacceptable LOS, or
- Result in an increase in average delay of more than 2 seconds, at a movement/approach that is operating at an unacceptable LOS without the project, or
- Result in an unsignalized intersection meeting a traffic signal warrant.

Freeway Ramps: A project is considered to have a significant effect if it would:

- Result in ramp queues exceeding storage capacity; or result in a decrease in safety.

Bicycle and Pedestrian Facilities: A project is considered to have a significant effect if it would:

- Eliminate or adversely affect an existing bikeway or pedestrian facility in a way that would discourage its use;
- Interfere with the implementation of a planned bikeway as shown in the General Plan or
- Fail to provide adequate access for bicyclists and pedestrians, resulting in unsafe conditions, including unsafe bicycle/pedestrian, bicycle/motor vehicle, or pedestrian/motor vehicle conflicts.

Safety: A project is considered to have a significant effect if it would:

- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses.

Dixon SB 743 Implementation Plan

The Dixon SB 743 Implementation Plan defines the VMT baseline and thresholds of significance. The adopted thresholds are 85 percent of the existing baseline VMT per capita or employee, as calculated over the Dixon model area for residential and employment land uses. Projects expected to generate daily VMT per unit at or under the applicable threshold are presumed to have a less than significant transportation impact for CEQA purposes. Projects expected to generate VMT over the applicable threshold of significance must demonstrate mitigation show how VMT could be mitigated to avoid a finding of impact.

Project-associated VMT may be measured with the City of Dixon Travel Demand Model or alternative method to be approved by the City Engineer. The applicable thresholds of significance summarized below:

- *Residential projects* – should be compared to a threshold of significance of **18.5 VMT per capita**.
- *Employment projects* – should be compared to a threshold of significance of **14.1 VMT per employee**.
- *Mixed use projects* – Analyze each component land use separately or focus on predominant use

The Dixon SB 743 Implementation Plan includes screening criteria. Projects meeting one or more of the criteria may be presumed to have a less than significant VMT impact and do not require VMT analysis.

Dixon Traffic and Rail Safety Study (2021)

In 2021, The city initiated the Dixon Area Advanced Traffic and Railroad Safety Study to enhance safety at seven railroad crossings. Safety recommendations included realignment of Vaughn Road and closure of its at-grade railroad crossing.

Both the General Plan and Safety Study documents advocate for eliminating the at-grade crossing at Vaughn Road and realigning the road to form a new intersection with Pedrick Road, positioned approximately 1,300 feet north of the existing intersection. The repositioning is designed to support a future overcrossing of the UPRR (Union Pacific Railroad) tracks by Pedrick Road, enhancing connectivity and safety. The creation of a new intersection at Commercial Drive and Pedrick Road is part of a larger plan that includes the Vaughn Road Realignment study, aiming to facilitate the anticipated Pedrick Road overcrossing of the UPRR railroad.

3.15.3 IMPACTS AND MITIGATION MEASURES

The potential impacts of the proposed Project on transportation and circulation were evaluated against the thresholds of significance described below. The project impacts and the proposed mitigation measures are listed below.

THRESHOLDS OF SIGNIFICANCE

Appendix G of the CEQA Guidelines contains a checklist of potential environmental impacts that must be considered. Consistent with Appendix G of the CEQA Guidelines and thresholds of significance adopted by the governing jurisdictions, a significant impact would occur if the proposed Project would:

- Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.

VMT Thresholds of Significance

Consistent with the Dixon SB 743 Implementation Plan, the proposed Project would have a significant impact on VMT if it:

- Residential projects: Exceeds the threshold of significance of 18.5 VMT per capita.
- Employment projects: Exceeds the threshold of significance of 14.1 VMT per employee.
- Retail or commercial projects: Results in a net increase in overall VMT.

Caltrans Facilities

The project is considered to have a significant impact on Caltrans facilities if its implementation would:

- Cause off-ramp traffic to queue back beyond the freeway gore point (i.e. the divergence of the edge lines of the mainline and off-ramp) as a result of project-associated traffic.

Pedestrian Circulation

The project is considered to have a significant impact on pedestrian facilities if its implementation would:

- Adversely affect existing or planned pedestrian facilities.
- Fail to adequately provide access for pedestrians.
- Result in unsafe conditions for pedestrians, including unsafe bicycle/pedestrian or pedestrian/motor vehicle conflicts.

Bicycle Facilities

The project is considered to have a significant impact on bicycle facilities if its implementation would:

- Adversely affect existing or planned bicycle facilities.
- Fail to adequately provide access by bicycle.
- Result in unsafe conditions for bicycles, including unsafe bicycle/pedestrian or bicycle/motor vehicle conflicts.

Transit

The project is considered to have a significant impact on transit facilities if its implementation would:

- Adversely affect public transit operations.
- Eliminate existing or planned transit service.
- Remove an existing bus stop.
- Cause a substantial rerouting of existing or planned bus service.
- Fail to provide adequate access to transit.

Construction-Related Traffic Impacts

The project is considered to have a significant construction-related traffic impact if its implementation would:

- Degrade an intersection or roadway to an unacceptable level of service.
- Cause inconvenience to motorists due to prolonged road closures.
- Result in an increased frequency of potential conflicts between vehicles, pedestrians, and bicyclists.

METHODOLOGY AND ASSUMPTIONS

Traffic analysis, as reported in the Transportation Impact Analysis (TIA), was referenced to identify any potential safety impacts, including impacts to Caltrans ramp intersections. The project's Vehicle Miles Traveled (VMT) characteristics were assessed in a separate analysis, as documented in the VMT Assessment Memo.

Traffic Modeling Scenarios

The analysis methodology and assumptions detailed in the TIA dated March 2024, and the VMT Assessment Memo dated February 5, 2024, are discussed below.

TRANSPORTATION STUDY AREA AND ANALYSIS SCENARIOS

The TIA addressed peak hour traffic conditions at five existing study intersections and six future intersections, as shown in **Figure 3.15-4**:

- Pedrick Road at I-80 Westbound Ramps – Sievers Road
- Pedrick Road at I-80 Eastbound Ramps – Sparling Lane
- Pedrick Road at Vaughn Road
- North First Street at Dorset Drive
- North First Street at Vaughn Road
- Pedrick Road at Professional Drive (future intersection)
- Pedrick Road at The Campus project North (future intersection)
- Pedrick Road at Commercial Drive (future intersection)
- Professional Drive at Dorset Drive (future intersection)
- Professional Drive at Commercial Drive (future intersection)
- Vaughn Road at Professional Drive (future intersection)

The TIA considered four future analysis scenarios:

- 2025 Opening Day Scenario
- 2025 Opening Day Plus Project Scenario
- Cumulative (2040) Scenario
- Cumulative (2040) Plus Project Scenario

The analysis assumptions for each scenario are outlined in the accompanying documentation.

2025 Opening Day Scenario:

The 2025 Opening Day Scenario evaluated the short-range traffic conditions expected on the opening day in 2025, considering the impact of the project within the context of short-term development. The scenario assumed the completion of the following roadway improvements by 2025, which would affect the study intersections due to these projects:

- Widening of southbound Pedrick Road to two lanes south of the I-80 interchange, along the frontage of the Dixon Opportunity Center (DOC).
- Partial construction of Professional Drive (2 lanes) along the DOC frontage.

Table 3.15-3 outlines the land use development projects that were included in the travel demand model as part of the 2025 opening day scenario for the Transportation Impact Analysis (TIA):

TABLE 3.15-3: BASELINE YEAR (2025) BACKGROUND LAND USE PROJECTS ASSUMED IN TRAFFIC IMPACT ANALYSIS

PROJECT NAME	DESCRIPTION
Gateway Plaza Expansion	3 retail buildings proposed, 21,000 sq ft
Bank of Stockton Retail center	3 buildings totaling 12,600 sq ft with bank and two retail/food service uses
Homestead Phase 2A	333 dwelling units + Amenity Center
Homestead Phase 2B	308 units (180 medium density affordable units, 128 medium density units + 15 acres commercial)
Homestead Phase 3	70 low density units under construction
Homestead Phase 1 - Jenn 6	343 low-density residential (TAZs 59-60)
Homestead Phase 1 - Ryder	60 low density residential
Valley Glen Phases 3-1 and 3-2	Addition of 132 lots under construction
Parklane Units 4 and 5 (Sutton)	121 units under construction
Valley Glen Phase 4-1 Buildout	84 units under construction
Various Projects	Senior Care Facility, Hotel/Drive Thru, Popeye's, Fueling Station expansion
Lewis Development (Independence)	186 duplex Residential units in building permit review + Rotten Robbie's gas station, quick service and car wash under construction
Buzz Oates Dixon Innovation Center	Industrial Park/Warehousing

SOURCE: FLECKER AND ASSOCIATES, MARCH 2024; CITY OF DIXON, 2024.

2025 Opening Day Plus Project Scenario:

The 2025 Opening Day plus Project scenario assesses the impact of the project's traffic on study intersections by superimposing project traffic onto the existing background conditions. This scenario includes the following assumed roadway improvements completed by the project:

- Widening of Southbound Pedrick Road to two lanes along The Campus project frontage, with one lane dedicated as a mandatory right turn lane at Commercial Drive.
- Construction of Professional Drive as a two-lane road along The Campus project frontage.
- Construction of Commercial Drive, a two-lane collector roadway with left turn lanes, stretching between Professional Drive and Pedrick Road. This serves as the northern realignment of Vaughn Road beyond the UPRR railroad crossing.
- Installation of Left Turn Lanes on northbound Pedrick Road and eastbound Vaughn Road.

Project Trip Generation

Trip generation rates published by the Institute of Transportation Engineers (ITE) publication "Trip Generation, 11th Edition" were applied to estimate project-generated traffic. The application of Land Use (LU) Codes 210 (Single Family Residential), 220 (Multifamily Residential), 822 (Strip Retail), and 760 (Research and Development Center) were used to estimate project trips. The estimated trip generation is as follows:

- 17,526 daily trips
- 1,361 trips during the a.m. peak hour
- 1,665 trips during the p.m. peak hour

After accounting for pass-by trips, the net new traffic is projected to result in 17,083 daily trips, with 1,345 in the a.m. peak hour and 1,604 in the p.m. peak hour.

DKS Associates used project trip data to update the traffic model, creating a 'Plus Project' condition. This update included trip distribution within model runs for both 2025 and 2040 periods. Notably, Phase 1 of The Campus project, consisting of 495 housing units, is anticipated to be completed by the 2025 Opening Day scenario.

TABLE 3.15-4: PROJECT TRIP GENERATION ESTIMATES

LAND USE	UNIT QUANTITY	SIZE	TRIPS PER UNIT						
			DAILY	AM PEAK HOUR			PM PEAK HOUR		
				IN	OUT	TOTAL	IN	OUT	TOTAL
Single Family Residential (LU 210)	DU	816	9.43	26%	74%	0.7	63%	37%	0.94
Multifamily Residential (LU 220)	DU	225	6.74	24%	76%	0.4	63%	37%	0.51
Retail Shopping Center (LU 822)	KSF	27.12	54.45	60%	40%	2.36	50%	50%	6.59
R&D Center (LU 760)	KSF	619.68	11.08	82%	18%	1.03	16%	84%	0.98
Single Family Residential (LU 210)			7,666	148	421	569	482	283	764
Multifamily Residential (LU 220)			1,517	22	68	90	72	42	115
Retail Shopping Center (LU 822)			1,477	38	26	64	89	89	179
R&D Center (LU 760)			6,866	523	115	638	97	510	607
Sub-Total Trips			17,526	731	630	1,361	740	925	1,665
Pass-By Trips									
Retail – Shopping Center (30% Daily, 26% AM, 34% PM) ¹			-443	-10	-7	-17	-30	-30	-61
Sub-Total Pass-By Trips			-443	-10	-7	-17	-30	-30	-61
Net New Trips			17,083	721	623	1,345	710	894	1,604
DU – dwelling unit KSF – thousand square feet 1daily pass-by is average of a.m. and p.m. rates (ITE Trip Generation Handbook, 3rd Ed) Numbers may not equal due to rounding									

SOURCE: FLECKER ASSOCIATES, MARCH 2024.

CUMULATIVE (2040) SCENARIO:

The analysis of the long-range 2040 cumulative condition in the TIA is intended to consider the impact of the project within the context of buildout of the General Plan circulation and land use elements occurring by 2040. The following changes to the roadway network were assumed based on the City of Dixon General Plan and the NEQSP:

- Pedrick Road was assumed to have two lanes in the southbound direction except along the project frontage.

- Professional Drive was assumed to be a two-lane facility until The Campus project is constructed along the east side of the roadway. Left turn lanes were also assumed to be constructed at intersections.
- Vaughn Road was assumed to be realigned to Pedrick Road north of the UPRR crossing.
- Dorset Drive was assumed to extend as a four-lane roadway from its existing terminus to Professional Drive. The intersection was assumed to be all-way stop controlled with left turn lanes on all approaches. East of Professional Drive, it will be a two-lane roadway within The Campus project.

CUMULATIVE (2040) PLUS PROJECT SCENARIO

The Cumulative (2040) Plus Project scenario analyzes the full buildout of the project. The following changes to the roadway network were only assumed under the "Plus Project" scenario.

- Under the "Plus Project" scenario, Commercial Drive is constructed as part of The Campus project in lieu of the Vaughn Road realignment. Vaughn Road was assumed to be widened to four lanes from North First Street to Professional Drive.

VMT Analysis Methodology

In compliance with SB 743 and following Office of Planning and Research (OPR) guidance, this document specifies the methodology, screening criteria, and thresholds of significance that member jurisdictions should follow.

DIXON TRAVEL DEMAND MODEL

The Dixon travel demand model, a three-step model maintained by the City of Dixon, forecasts local vehicular traffic flows. The model's baseline scenario was calibrated with land use data as of late 2018 and traffic counts from spring 2019. Inputs to the model include housing units and employment by type.

Outputs from the model include average weekday trip generation and distribution, along with traffic assignments by time period.

The study area includes land within Dixon city limits and adjacent Sphere of Interest zones in unincorporated Solano County. Network links at gateway zones include a distance adjustment for estimating true trip lengths for trips entering and leaving the study area, derived from the California Statewide Travel Demand Model.

The model can estimate total daily VMT for both internal-internal and internal-external trips. VMT calculations are performed within the model, with final processing done in a spreadsheet.

The model does not directly use population as an input; instead, VMT per capita is estimated using the Distributed Household Unit Method, with a population per housing unit of 2.94 (based on 2021 American Community Survey Data³) and a 5% vacancy rate. Employment by category for non-residential land uses

³ United States Census Bureau. *American Community Survey* [Data File]. 2021.

was estimated using trip rates from the ITE Trip Generation Manual, 11th Edition⁴. These estimates serve as direct inputs to the model and are used to calculate the VMT per employee metric. More information on the model can be found in the model development report⁵.

VMT ASSESSMENT SCENARIO ASSUMPTIONS

The project was analyzed under the "Existing plus Approved plus Project" scenario, considering current development and projects with building permits issued at the time of the Notice of Preparation (NOP). Approved and permitted projects in the analysis do not include the Dixon Innovation Center, proposed for the parcel directly north of the project.

The Vehicle Miles Traveled (VMT) analysis assumes a full buildout of the Campus land use program, as specific phasing details are not yet determined. Details on the approved development projects included in the VMT assessment are available in the VMT Assessment Memo⁶.

Existing Plus Approved Plus Project Scenario

The analysis for the Campus project assumes an opening year of 2025. The standard 2025 land use inputs for the City of Dixon traffic model were modified to develop an 'Existing Plus Approved Plus Project' scenario as follows:

- Any land use development project that did not have an approved building permit at the time of the Notice of Preparation (NOP) was excluded from the analysis.
- Given that phasing is currently unknown, the analysis assumed a full buildout of the Campus.
- The analysis does not assume the construction of the Dixon Innovation Center.

The following road network improvements were assumed as part of the 'Existing Plus Approved Plus Project' scenario:

- Widening of southbound Pedrick Road to two lanes along The Campus project frontage, with one lane becoming a mandatory right turn lane at Commercial Drive.
- Construction of Professional Drive (two lanes) along The Campus project frontage.
- Construction of Commercial Drive (a two-lane collector roadway with left turn lanes) between Professional Drive and Pedrick Road; this roadway will serve as the realignment of Vaughn Road to the north of the UPRR railroad crossing along Pedrick Road.
- Installation of left turn lanes along northbound Pedrick Road and eastbound Vaughn Road.

The extension of Dorset Drive to Professional Drive was not assumed to be in place at the time of the project opening.

⁴ Institute of Transportation Engineers. *Trip Generation Manual, 11th Edition*. 2021.

⁵ City of Dixon. *City of Dixon Travel Model Update*. October 2019.

⁶ DKS. *Dixon Campus VMT Assessment Memo*. February, 2024.

PROJECT VMT ASSESSMENT

The VMT outputs were summarized and evaluated against the adopted significance thresholds. These thresholds are defined as 85% of the baseline VMT per capita and per job for the City of Dixon, which are 18.6 VMT per capita and 14.2 VMT per job, respectively. According to **Table 3.15-5**, the project's home-based VMT per capita surpasses the significance threshold by 18.5%, and the home-based work VMT per employee exceeds it by 14.7%.

TABLE 3.15-5: BASELINE YEAR (2025) PROJECT VMT AVERAGE RATES

LAND USE	TARGET VMT RATE	AVERAGE PROJECT VMT RATE	PERCENT MITIGATION REQUIRED
RESIDENTIAL	18.6 VMT/Capita	22.1 VMT/Capita	18.5%
NON-RESIDENTIAL (EMPLOYMENT)	14.2 VMT/Job	16.3 VMT/Job	14.7%

SOURCE: DIXON SB 743 IMPLEMENTATION PROCEDURES REPORT (2022)

IMPACTS AND MITIGATION

The potential adverse environmental impacts related to transportation and circulation that might arise from the implementation of a proposed Project. Impacts are assessed based on the stated thresholds of significance and methodology described above. Each impact is followed by recommended mitigation to reduce the identified impacts, if needed.

Impact 3.15-1: Implementation of the proposed Project could conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. (Less Than Significant)

The following discussion focuses on whether the proposed Project would result in impacts to existing or planned pedestrian facilities, bicycle facilities, or transit facilities and services within the project area or other plans, policies, or goals.

Bicycle and Pedestrian Facilities

A review of the site plan and Traffic Impact Analysis (2024) do not indicate the project would adversely impact existing or planned pedestrian facilities.

There are no bicycle or pedestrian facilities within the study area under existing conditions. The project does not conflict with any identified future pedestrian or cycling facilities; the proposed bicycle facilities as shown in the Dixon General Plan Mobility Element will be integrated into the site and the project will provide portions of the Class I path identified by the Mobility Element along the project frontage on Pedrick Road. Internal roads on the Project site will include pedestrian facilities on internal roads and intersections designed consistent with City of Dixon Engineering standards. Further, pedestrian paseos would be present throughout the Project site, connecting parks and open spaces to the residential areas and DOC.

Based on the above, the proposed Project would not conflict with a program, plan, ordinance, or policy addressing pedestrian and cycling facilities, and a less-than-significant impact would occur.

Transit Facilities

A review of the site plan and Traffic Impact Analysis (2024) does not indicate the project would adversely impact existing or planned transit facilities. There are currently no fixed transit routes or bus stops in the project area. The operations of the proposed Project would not conflict with a program, plan, ordinance, or policy addressing transit facilities and a less-than-significant impact would occur.

Planned Closure of Vaughn Road Railroad Crossing and Pedrick Road Overcrossing

The project will provide new connectivity between Pedrick Road and Vaughn Road via Professional Drive and Commercial Drive. This connectivity will enable the closure of the Vaughn Road railroad crossing by providing alternative routes between Pedrick Road and Vaughn Road, as recommended in the Dixon Area Advanced Traffic and Railroad Safety Study⁷. In addition, the new intersection of Commercial Drive with Pedrick Road has been located to accommodate the eventual overcrossing of the Pedrick Road railroad crossing with sufficient clearance to meet UPRR standards.

The proposed Project will not conflict with planned bicycle, pedestrian, or transit facilities nor the removal of the two at grade railroad crossings. The project would have a ***less-than-significant impact***.

MITIGATION MEASURE(S)

None Required.

Impact 3.15-2: Implementation of the proposed Project would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) regarding Vehicle Miles Traveled (VMT). (Significant and Unavoidable)

A travel demand model run was conducted using assumptions summarized in the previous sections to identify project VMT per capita and per job. Outputs were summarized and evaluated against the adopted thresholds of significance, or 85% of the baseline VMT per capita and VMT per job for the City of Dixon, or 18.6 VMT per capita and 14.2 VMT per job.

As shown previously in **Table 3.15-5**, the home-based VMT per capita for the project is 22.1 VMT per Capita and 16.3 VMT per job, which exceeds the threshold of significance by 18.5% and the home-based work VMT per employee exceeds the threshold of significance by 14.7%. This exceedance of thresholds would result in a ***potentially significant impact***.

SIGNIFICANCE BEFORE MITIGATION

Potentially Significant.

⁷ City of Dixon. *Dixon Area Advanced Traffic and Railroad Safety Study*. Adopted October, 2021.

MITIGATION MEASURE(S)

Mitigation Measure 3.15-2:

The effectiveness of various VMT mitigation strategies as documented in the literature is summarized in the California Air Pollution Control Officers Association (CAPCOA) Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Change Vulnerabilities, and Advancing Health Equity (CAPCOA Handbook).⁸ **Table 3.15-6** summarizes the maximum potential effectiveness of various applicable strategies documented in the CAPCOA Handbook that were considered for potential incorporation into the Project.

TABLE 3.15-6: MITIGATION STRATEGIES

STRATEGY	REPORTED MAXIMUM EFFECTIVENESS
RESIDENTIAL VMT REDUCTION STRATEGIES	
T-1. INCREASE RESIDENTIAL DENSITY	30%
T-4. INTEGRATE AFFORDABLE AND BELOW MARKET RATE HOUSING	1.2%
T-15. LIMIT RESIDENTIAL PARKING SUPPLY	13.7%
T-16. UNBUNDLE RESIDENTIAL PARKING COSTS	15.7%
T-17. IMPROVE STREET CONNECTIVITY	30%
T-19 AND T-20. CONSTRUCT OR IMPROVE BIKE FACILITY OR EXPAND BIKEWAY NETWORK	0.8%
EMPLOYEE VMT REDUCTION STRATEGIES	
T-2. INCREASE JOB DENSITY	30%
T-5. IMPLEMENT COMMUTE TRIP REDUCTION PROGRAM (VOLUNTARY)	4%
T-6. IMPLEMENT COMMUTE TRIP REDUCTION PROGRAM (MANDATORY)	26%
T-7 THROUGH T-10. INDIVIDUAL COMMUTE TRIP REDUCTION PROGRAM COMPONENTS	4-8%
T-11. PROVIDE EMPLOYER-SPONSORED VANPOOL	20.4%
T-12. PRICE WORKPLACE PARKING	20%
T-13. EMPLOYEE PARKING CASH-OUT	12%
T-2. INCREASE JOB DENSITY	30%

SOURCE: CAPCOA. HANDBOOK FOR ANALYZING GREENHOUSE GAS EMISSION REDUCTIONS, ASSESSING CLIMATE VULNERABILITIES, AND ADVANCING HEALTH AND EQUITY, DECEMBER 2021.

The VMT mitigation target and associated calculations are described in detail in the VMT Assessment Memo, dated February 2, 2024. The mitigation strategies were reviewed for their feasibility in being incorporated into the project. However, strategies that could potentially provide the level of mitigation needed to support a finding of less than significant with mitigation would either change the fundamental nature of the project, be infeasible from a market perspective, or not provide the needed level of mitigation.

⁸ California Air Pollution Control Officers Association. *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*. Public Draft. August 2021.

The VMT Assessment Memo discusses measures including increasing project density and integrating affordable housing, with a potential mitigation effectiveness of up to 30%. However, incorporating increased density or affordable housing is deemed infeasible due to potential changes to the project's fundamental nature. Similarly, parking policies, such as limiting residential parking supply and unbundling parking costs, could mitigate VMT by up to 15.7%. Nonetheless, reducing the parking supply by half would result in only a 7% reduction in residential VMT, and unbundling parking costs for multifamily units, which account for 22% of residential VMT, would have a maximum reduction effectiveness of about 3%, falling short of mitigation goals.

The memo also details strategies to mitigate employment-related VMT. The current employment density of 42 jobs per acre is generally insufficient to demonstrate VMT reductions, and increasing density to the required levels would significantly alter the project's nature. Mandatory commute trip reduction programs, including components such as marketing, ridesharing, subsidized transit, bicycle facilities, and vanpools, could achieve a mitigation effectiveness of up to 26% if more than half (57%) of employees participate. An employer-sponsored vanpool alone could reduce employment-related VMT by 20%, requiring about 16% of employees to use it. However, parking pricing strategies, such as workplace parking pricing and employee parking cash-out, have documented effectiveness but may not be feasible due to the ample unpriced parking in the area, though they could be integrated into a broader commute trip reduction program.

SIGNIFICANCE AFTER MITIGATION

Significant and Unavoidable.

The employment-related VMT of the project could potentially be mitigated through the implementation of a mandatory commute trip reduction program. However, for the home-based VMT associated with the project's residential uses, no feasible mitigation strategy has been identified that would sufficiently reduce impacts to below significant levels. Consequently, the overall VMT impact of the project would remain *significant and unavoidable*.

Impact 3.15-3: Implementation of the proposed Project could substantially increase hazards due to a geometric design feature or incompatible uses. (Less Than Significant)

The proposed site plan illustrated in Figure 3.15-3, as well as the TIA were reviewed for design features that would result in an increased hazard including sharp curves, steep grades or complex intersections. The proposed site plan does not include any of these elements and the geometric design assessment did not identify any sharp curves, steep grades or complex intersections that would result in an increased hazard.

IMPACTS TO CALTRANS FACILITIES

The evaluation of potential impacts on Caltrans facilities focuses on whether project-related traffic could lead to significant queuing at freeway off-ramps, specifically causing traffic to queue back beyond the

freeway gore points. If the project’s traffic could disrupt the flow on the freeway by extending queues onto the freeway mainline, it is considered to have a significant impact.

The Traffic Impact Analysis (TIA) examined queuing conditions at two freeway off-ramp intersections to understand the project’s impact under existing conditions, an opening day (2025) scenario, and cumulative (2040) scenario. These timeframes were analyzed during a.m. and p.m. peak traffic hours. The freeway ramp intersections evaluated are:

- Pedrick Road at I-80 Westbound Ramps/Sievers Road intersection.
- Pedrick Road at I-80 Eastbound Ramps/Sparling Lane intersection.

Currently, both intersections operate with all-way stop control. The distance from the stop-bars at these intersections to the gore points of the I-80 off-ramps is approximately 1,200 feet, measured using Google Earth, providing a measurable distance to assess queuing impacts.

The TIA used Synchro software to conduct queue analysis, determining the 95th percentile queue lengths during peak periods and comparing these to the available storage length evaluate spill over, potentially impacting adjacent lanes or extending through nearby intersections.

Findings from this analysis are summarized in **Table 3.15-7**. According to the results, under baseline conditions for the years analyzed, neither off-ramp is expected to experience queue spillback that reaches the gore point on I-80, indicating that the project-related traffic is not anticipated to cause significant impacts at these Caltrans facilities. Based on this finding, the project would have a **less-than-significant impact**.

TABLE 3.15-7: BASELINE YEAR (2025) WITH PROJECT 95TH PERCENTILE QUEUE LENGTHS AT I-80 RAMPS

INTERSECTION/ MOVEMENT	STORAGE TO GORE POINT (Ft)	AM PEAK HOUR QUEUE (Ft)		PM PEAK HOUR QUEUE (Ft)	
		2025	2025 PLUS PROJECT	2025	2025 PLUS PROJECT
I-80 Westbound Off-Ramp (Pedrick Rd at I-80 Wb Ramps/Sievers Road)					
WB Through-Left	1,200	70	45	145	275
WB Right	1,200	<25	<25	<25	<25
I-80 Eastbound Off-Ramp (Pedrick Rd at I-80 Eb Ramps/Sparling Ln)					
EB Through-Left	1,200	48	48	60	60
EB Right	1,200	50	35	<25	<25

SOURCE: FLECKER AND ASSOCIATES, MARCH 2024.

IMPACTS RELATED TO INCOMPATIBLE USES

The study area is adjacent to agricultural lands and processing facilities, potentially leading to hazards from incompatible uses with the proposed development. The Solano County Department of Resource Management expressed concerns about the high-density residential development being too close to agricultural activities.

A major concern centers on the Campbell's Soup Supply Company Facility at 8380 Pedrick Road, a key local economic entity, which has its primary access within the study area. The Department highlighted concerns about potential negative impacts on Campbell's, including operational disruptions from new housing and high-volume intersections, especially problematic during the harvest season's increased truck traffic. Concerns are not limited to Campbell's, but extend to the broader network of local agriculture-dependent businesses.

The County stresses the importance of designing the project to ensure roads and intersections do not negatively impact agricultural support facilities and trucking routes essential to Campbell's and the wider agricultural community.

The TIA conducted by Flecker Associates, dated March 2024, reviewed operations on the study road network illustrated in Figure 3.15-4 and proposed improvements to the study road network that would mitigate operational deficiencies to a level acceptable by City standards. This study examined traffic operations within the study road network for existing conditions, as well as projected scenarios for opening day (2025) and cumulatively by 2040. It assessed the performance of study intersections in terms of LOS and queuing, with a focus on maintaining acceptable traffic flow as defined by the City of Dixon's LOS thresholds. As noted previously, the analysis related to intersection LOS is not applicable for CEQA analysis but will otherwise be used to qualitatively describe the impact of the project on the study road network to assess concerns raised by the County on incompatible land use and impacts to facilities that support agriculture.

TIA findings indicate that most study intersections are expected to meet the City of Dixon's acceptable LOS thresholds by 2025, with the Pedrick Road at I-80 Eastbound Ramps/Sparling Lane requiring signalization.

In summary, while the County's concerns regarding the proximity of residential development to agricultural operations are valid, the proposed improvements outlined in the TIA aim to promote safe and orderly operations at intersections along Pedrick Road. The projected increase in traffic is consistent with city policy and the arterial classification of the roads in question.

This assessment assumes the proposed intersection improvements outlined in the TIA are implemented. Based on this assumption, the project would have a *less-than-significant impact*.

IMPACTS TO EMERGENCY ACCESS

Assessing emergency access for a large site such as the proposed Project involves evaluating the design and infrastructure to ensure that emergency services (fire, police, and medical) can reach and operate within the site quickly and efficiently in case of emergencies. Key considerations and steps in the assessment process:

- **Multiple Access Points:** Ensure there are at least two access points to the subdivision to provide alternative routes for emergency vehicles in case one is blocked.
- **Road Width and Turn Radius:** Roads should be wide enough to accommodate large emergency vehicles, with adequate turn radii at corners and cul-de-sacs.

- Surface and Maintenance: Roads must be capable of supporting the weight of heavy emergency vehicles and maintained in good condition, including during construction phases.
- Fire Lane Designation: Designate and clearly mark fire lanes that are no-parking zones to ensure unobstructed access.
- Building Access: Buildings should have clear access for firefighters, including considerations for ladder access in multi-story structures.
- Ensure there are adequate provisions for emergency vehicles to turn around, especially in dead-end streets or cul-de-sacs, following the specific requirements of local emergency services.
- Ensure the site plan complies with all relevant local, state, and federal regulations regarding emergency access and services.

The City of Dixon has the following requirements related to access and circulation in the City of Dixon Fire Code⁹

- All-weather Surface Requirements: Roads must have a durable surface, such as asphalt or concrete, capable of supporting vehicles up to 75,000 lbs, ensuring access in all conditions.
- Fire Access Road Specifications: Must feature a minimum turning radius of 28 feet inside and 52 feet outside, accommodating the maneuverability of fire apparatus.
- Temporary Fire Access Roads: For construction sites, temporary roads must support fire apparatus, include turn-around provisions for long roadways, and maintain unobstructed access.
- Obstruction Policies: Staging areas, equipment, or parking must not impede fire department access roads or access to structures and hydrants.

Based on the above, the proposed development project would not substantially increase hazards due to inadequate emergency access, and the impact would be less than significant.

MITIGATION MEASURE(S)

None Required.

Impact 3.15-4: Implementation of the proposed Project would not result in adverse impacts due to construction activities. (Less Than Significant)

Construction activities associated with the proposed Project would include use of construction equipment, including vehicles removing or delivering fill material, bulldozers, and other heavy machinery, as well as building materials delivery, and construction worker commutes. The transport of heavy construction equipment to the site, haul truck trips, and construction worker commutes could affect the local roadway network.

The City of Dixon Construction Specifications (21-02) state that, if required by the City Engineer, a Traffic Control Plan (TCP) shall be provided to the City and approved by the City Engineer prior to installation of construction signs or beginning of construction work within the City street right-of-way. The plan shall

⁹ City of Dixon. (2022). 2022 California Fire Code Amendments. Adopted by the City of Dixon pursuant to California Government Code § 50022 et seq. Available at Dixon Fire Department, Fire Prevention Division Office, 205 Ford Way, Dixon, CA 95620.

ensure that safe and efficient movement of traffic through the construction work zone(s) is maintained. The City of Dixon Engineering Standards and Specifications¹⁰ require the following:

1. Public safety and traffic control shall be provided in accordance with the Standard Specifications and as directed by the City Engineer. Safe vehicular and pedestrian access shall be provided at all times during construction.
2. When street work or trenching is done that would interfere with emergency response traffic, the Contractor shall obtain an Encroachment Permit from the City of Dixon, submit a traffic control plan, and notify the Fire and Police Departments 24-hours in advance of the time and location of such closures. The Contractor shall again contact these departments as soon as the street is reopened.
3. Unless specifically set forth in the Special Provisions, all marked lanes of traffic shall be open on all major streets in each direction during the peak traffic hours of 7:00 am to 8:00 am and 3:00 pm to 5:00 pm. A traffic lane shall be considered open if it is surfaced with asphalt and is at least 10 feet wide.
4. Whenever a work zone is within 10 feet of a traffic lane and there is a pavement cut, ditch, or trench greater than 2 inches deep, the Contractor shall maintain continuous barricades spaced at approximately 50-foot intervals. If the cut, ditch, or trench is more than 10 feet from a travel lane, the spacing may be greater, but not to exceed 200 feet.
5. Prior to ordering street name signs, the Contractor shall verify street names and street sign specifications with the City Engineer.
6. The Contractor shall remove, temporarily relocate, and reinstall all public signs, private signs and mailboxes in conflict with the construction. Mailbox locations shall be as approved by the United States Postal Department. Public sign relocation shall be coordinated with the sign owners and the City of Dixon.

Based on the assumed implementation of an approved TCP, the project impact is ***less than significant*** on construction operations.

MITIGATION MEASURE(S)

None Required.

CUMULATIVE IMPACTS

“Cumulative impacts,” according to the CEQA Guidelines are significant effects resulting from the combination of two or more individual effects, which may stem from a single or multiple projects. These impacts compound or increase other environmental impacts. Cumulative impacts consider the environmental changes from the incremental impact of the project alongside other related past, present, and reasonably foreseeable future projects. The cumulative setting for the foregoing analysis is based on the Assumptions in the Dixon Travel Demand Model as previously described for the Cumulative (2040) scenario.

¹⁰ City of Dixon. *Engineering Standards and Specifications*. March, 2022.

Increased traffic volumes under cumulative conditions are not expected to significantly alter the performance of pedestrian, bicycle, transit facilities and services, nor affect hazards and emergency vehicle access. These impacts will be the same as those discussed in Impacts 3.15-1 through Impacts 3.15-3. Construction activities for the project will be completed before the cumulative analysis year, hence, not further discussed in the cumulative analysis.

Impact 3.15-5: Implementation of the proposed Project, in combination with other cumulative development, would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) regarding Vehicle Miles Traveled (VMT). (Significant and Unavoidable)

The OPR's Technical Advisory indicates that VMT efficiency metrics, such as VMT per resident, may not be appropriate for CEQA cumulative analysis because they employ a denominator. Instead, the Technical Advisory recommends that an impact finding from an efficiency-based project-specific VMT analysis (i.e., Existing Plus Project conditions) would imply an identical impact finding for a cumulative VMT analysis.

As previously stated, the proposed Project would result in a significant impact if the project were to generate home-based VMT per capita or VMT per job exceeding the threshold of 85 percent of the regional average. Because the proposed Project would generate in excess of the City thresholds for both criteria, the proposed Project exceeds the threshold of 85 percent, and a *cumulatively considerable* and a *significant* impact would occur.

MITIGATION MEASURE(S)

Mitigation Measure 3.15-5: *Implement Mitigation Measure 3.15-2.*

SIGNIFICANCE AFTER MITIGATION

Significant and Unavoidable.

As noted previously, implementation of a TDM plan would reduce the amount of VMT associated with the proposed Project, but not to a less-than-significant level. Therefore, the impact would remain *cumulatively considerable and significant and unavoidable*.

Impact 3.15-6: Implementation of the proposed Project, in combination with other cumulative development, could substantially increase hazards due to a geometric design feature or incompatible uses. (Less Than Significant)

IMPACTS TO CALTRANS FACILITIES

For the 2040 scenario, the TIA recalculated the operations at the two study intersections using projected traffic volumes. Both intersections were still assumed to be operating as all-way stop-control.

Queue lengths for the cumulative with and without project scenario are shown in **Table 3.15-8**. Given the 1,200-foot distance to the gore points at both intersections, the analysis clearly shows that the project-generated traffic is not expected to cause traffic queues to spill back to the gore points for any of the

movements analyzed during both AM and PM peak hours. Therefore, based on the findings from the TIA, the project-related traffic in the Year 2040 cumulative scenario is not expected to cause significant impacts at these Caltrans facilities in terms of causing traffic to spill back to gore points.

TABLE 3.15-8: CUMULATIVE (2040) 95TH PERCENTILE QUEUE LENGTHS AT FREEWAY RAMPS

INTERSECTION/ MOVEMENT	STORAGE	AM PEAK HOUR		PM PEAK HOUR	
		2040	2040 PLUS PROJECT	2040	2040 PLUS PROJECT
I-80 Eastbound Off-Ramp (Pedrick Rd at I-80 Eb Ramps/Sparling Ln)					
WB Through-Left	--	83	220	283	563
WB Right	70	<25	<25	<25	<25
I-80 Eastbound Off-Ramp (Pedrick Rd at I-80 Eb Ramps/Sparling Ln)					
EB Through-Left	--	63	68	68	68
EB Right	30	55	95	<25	28

SOURCE: FLECKER AND ASSOCIATES, MARCH 2024.

IMPACTS TO INCOMPATIBLE USES

By 2040, even though some intersections are projected to operate below the city's LOS D threshold, implementing recommended measures would mitigate potential traffic concerns at the following study intersections on Pedrick Road:

- Pedrick Road / I-80 Westbound Ramps – Sievers Road
- Pedrick Road at I-80 Eastbound Ramps – Sparling Lane
- Pedrick Road at Professional Drive

The TIA recommended that the project should contribute its fair share to the cost of regional circulation improvements via the existing citywide traffic impact mitigation fee program, including constructing signals at these three intersections as well as geometric upgrades to some approaches where storage lengths are exceeded.

MITIGATION MEASURE(S)

None Required.

Figure 3.15-1 – Proposed Circulation Diagram

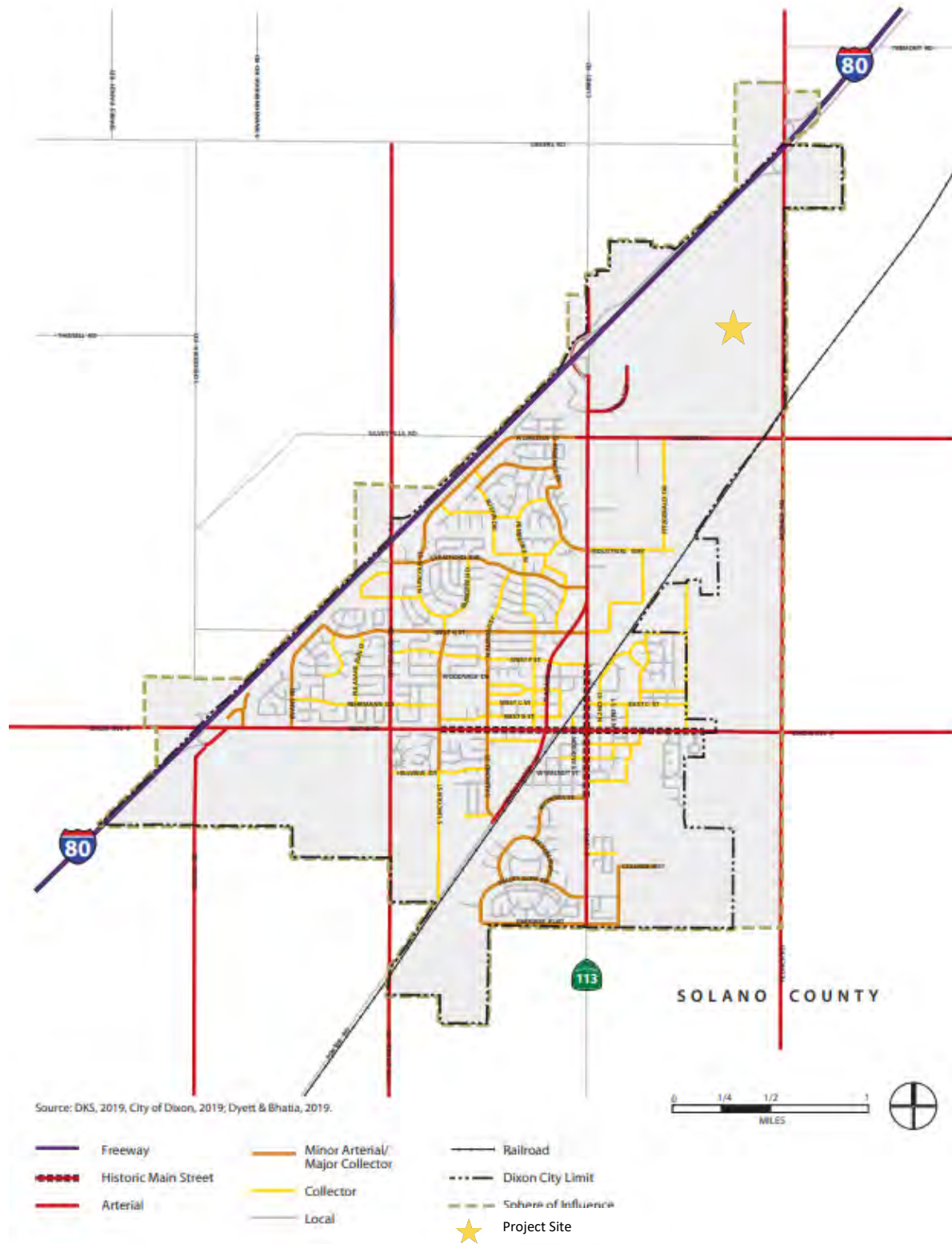


Figure 3.15-2 – Existing and Proposed Bicycle Facilities in General Plan

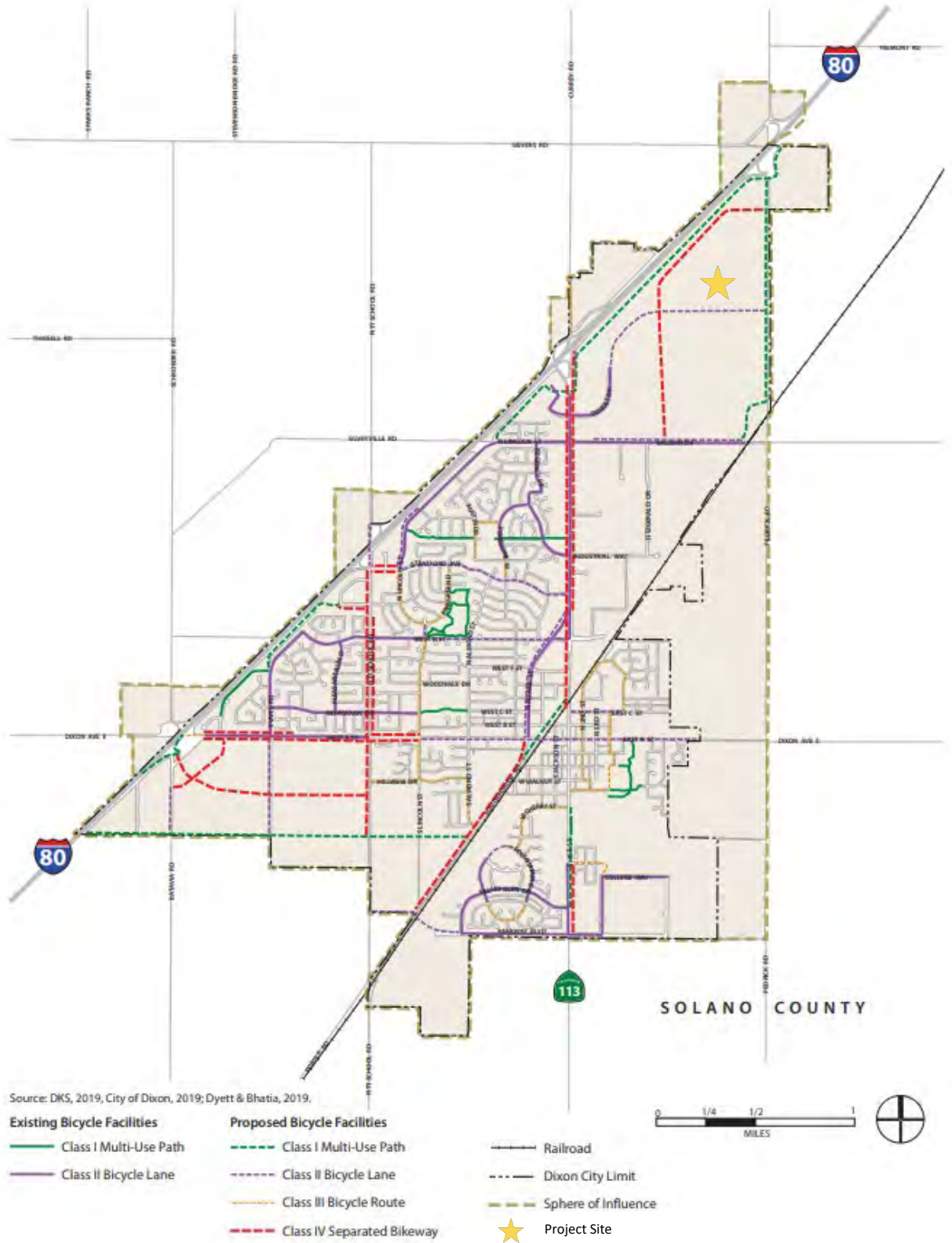


Figure 3.15-3 – Site Plan and Internal Circulation



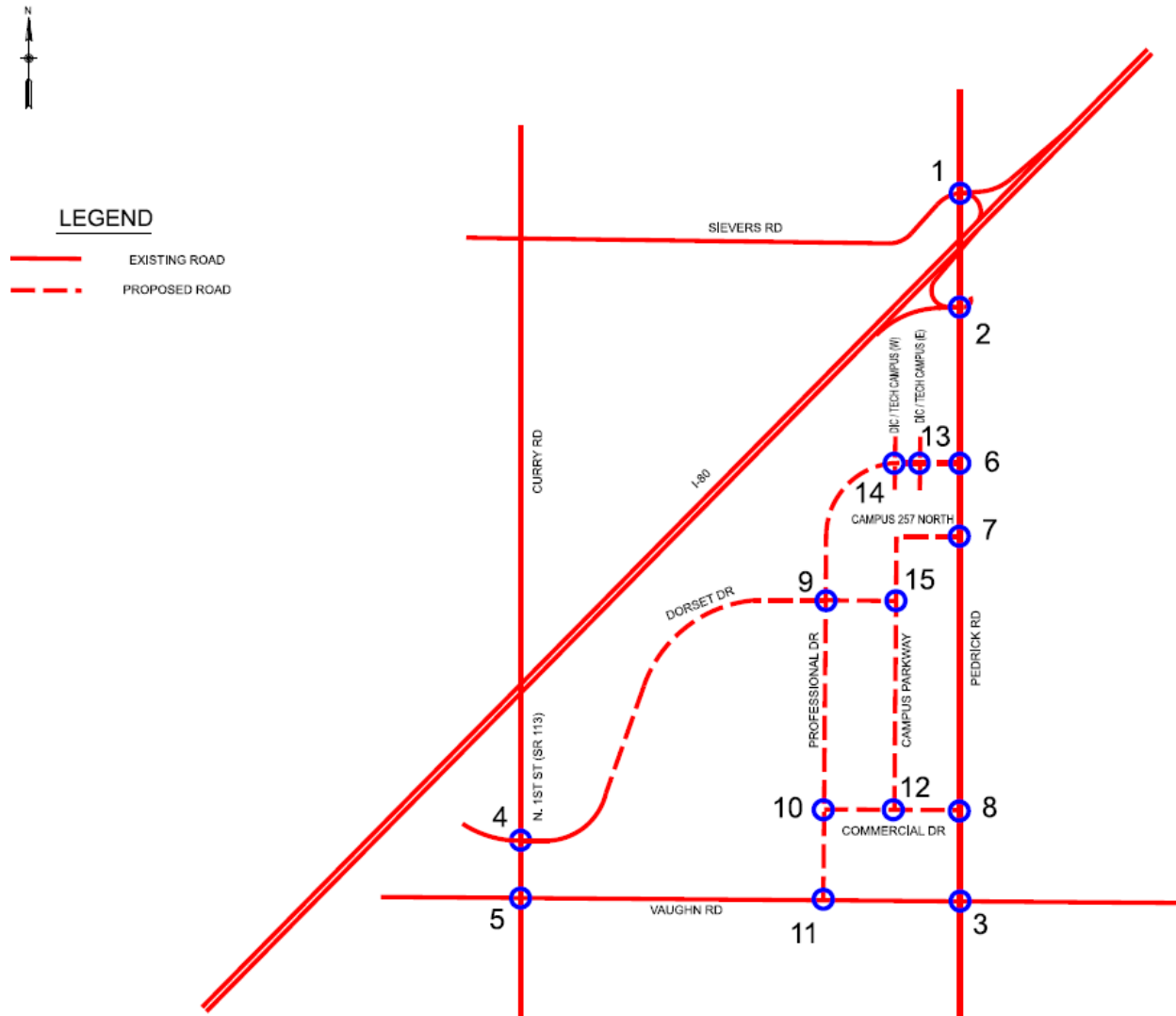
SITE PLAN

FIGURE 2

FLECKER ASSOCIATES

5500-01

Figure 3.15-4 – Traffic Impact Analysis Study Intersections



This section describes the regulatory setting, impacts associated with wastewater services, water services, storm drainage, and solid waste disposal that are likely to result from Project implementation, and measures to reduce potential impacts to these services. This section is based in part on the following documents, reports and studies: *California's Groundwater*, *CalRecycle Solid Waste Information System*, *CalRecycle Jurisdiction Diversion/Disposal Rate Summary*, *Urban Water Management Plan (2020)*, *Citywide Water System Master Plan (2021)*, *Sewer System Management Plan (2023)*, *Sewer Collection System Master Plan (2023)*, *The Campus Draft Sewer Study (Morton Pitalo, 2024)*, *Water System Master Plan and Strategic Asset Management Plan (2016)*, *The Campus (Dixon 257) Project Water Study (Morton Pitalo, 2024)*.

Four comments were received during the Notice of Preparation (NOP) scoping period regarding this environmental topic (Appendix A). These include the California Department of Transportation, Central Valley Regional Water Quality Control Board, Dixon Resource Conservation District, and the Solano County Department of Resource Management. Each of these comments are addressed within this section.

3.16.1 WASTEWATER SERVICES

ENVIRONMENTAL SETTING

The City of Dixon (City) operates the sanitary sewer collection system and Wastewater Treatment Facility (WWTF), serving approximately 19,000 people and collecting approximately 410 million gallons per year¹ in the service area. The City's existing collection system covers an area of approximately 2,500 acres and provides service to residential, industrial, and commercial users. The wastewater generated from these users is collected and conveyed to the WWTF by a network of sewer pipes, force mains, and lift stations. The existing wastewater collection system provides service to over 5,000 residential and commercial connections. The influent wastewater includes flows from five industrial dischargers that make up approximately seven percent of the annual flow (1.13 million gallons per day (MGD)).

Wastewater Conveyance

The collection system consists of approximately 75 miles of sanitary sewers (local sewers, trunk sewers, and force mains) and one lift station, the Lincoln Street Lift Station (LSLS). The oldest portions of the City's existing collection system were constructed in 1952, along with the original WWTF. This includes the 27-inch main trunk line conveying flow collected within the City to the WWTF. The sewer system has since expanded to accommodate growth. A 42-inch trunk line was constructed in 2003. Both trunks suffered from inflow and infiltration until the 42-inch trunk line was repaired and the 27-inch trunk line was isolated from service in April 2005. The City plans to fully repair the 27-inch trunk line before bringing it back into service. As a result of fixing the 42-inch trunk line and temporarily removing the 27-inch trunk line, inflow and infiltration has significantly

¹ City of Dixon. 2022. 2020 Urban Water Management Plan. Draft. Prepared by City of Dixon and West Yost.

improved. Approximately one third of the City's collection system consists of primary trunk sewers, equating to approximately 25 miles of the system.

A new gravity sewer line from the southwest corner of Pitt School Road and West A Street to the existing sewer trunk system on South First Street at Parkway Boulevard (southeast corner of the Valley Glenn Subdivision) was constructed and commissioned in July of 2020. The new 15- to 27-inch East-West Trunk Connector provides gravity service to Pitt School Lift Station (PSLS) service area and allowed the lift station to be decommissioned. A cost-benefit analysis over a 20-year period showed that abandoning the PSLS and constructing the East-West Sewer Trunk Connector would cost approximately half of the cost of repairing, operating, and maintaining the existing lift station.

Wastewater Treatment

The City of Dixon owns and operates the wastewater treatment and collection system facilities serving the City. Primary services provided by the City for the wastewater system are collection, treatment, disposal, and maintenance. The sewer system generally flows from the north and west to the south and east, with pipes sized starting at six inches adjacent to I-80, eventually connecting to the 42-inch trunk line at the south edge of the City, which transports the influent to the wastewater treatment plant. The system also has one lift station.

Substantially all of the City is served by the wastewater collection system, providing service to a population to of approximately 19,000 persons. The City is served by a system of gravity sewers and a lift station to collect wastewater. The collection system transports wastewater to the Dixon WWTF, located in the southern portion of the City located at 6915 Pedrick Road. The City of Dixon WWTF has been in operation since 1952, currently serves a population of 18,500 residents, and has approximately 5,000 connections. The existing headworks, influent pump, and the initial collection system including a 27-inch trunk line have since expanded to accommodate growth. The City's WWTF has undergone significant improvement project to comply with regulatory requirements. The WWTF improvements are planned to be completed in two phases to provide capacity for current and entitled projects within the City through 2040. Note that only the first phase has been constructed. In 2016, Dixon completed an upgrade to the WWTF, replacing 130- acre treatment ponds with an oxidation ditch design. The upgrade implemented an activated sludge treatment process that required much less land than the original aerated pond process. Phase 1 of the WWTF upgrade increased the Average Annual Flow (AAF) capacity of the WWTF to 1.9 million gallons per day (MGD) and was constructed on four acres in a 14-acre site at the north edge of the original WWTF, which covered 430 acres. The Phase 1 upgrade/expansion was designed so that the WWTF can be further expanded to an AAF capacity of 2.5 MGD. In 2020, the City collected 410 MG (equal to 1,258 acre-feet per year) of wastewater within the City limits. In total, the average annual influent flow has been less than 1.3 MGD.²

² California Regional Water Quality Control Board Central Valley Region. Waste Discharge Requirements for the City of Dixon Wastewater Treatment Facility. Order R5-2014-0098. 2014.

The WWTF is permitted by the Central Valley Regional Water Quality Control Board (CVRWQCB) under WDR Order No. R5-2014-0098.

The City still owns the 430 acres of the original WWTF site. Treated effluent that is generated at the WWTF is disposed of through land application and there is no discharge to any of the open channels or creeks near the WWTF. The City has additional land (in the 14-acre site) that could be used to further expand the WWTF beyond 2.5 MGD without reducing the area used for land application. Additionally, the City collects wastewater rates and impact fees to fund the operation, maintenance, and expansion of the collection system and WWTF.

Planned Infrastructure Upgrades

The City has an existing Capital Improvement Project (CIP 315) to completely reconstruct the Lincoln Street Lift Station (LSLS) located on North Lincoln Street. The improvement project includes new piping, overflow controls, below grade pumps, and an emergency generator. The existing lift station is deteriorating and requires a significant amount of maintenance. The original lift station was located in the roadway and was relocated to its current location when North Lincoln Street was widened. The piping system was constructed to divert flow to the current lift station and the sewer pipe is cracked and needs to be replaced. The placement of the existing pumps in the wet-well need maintenance staff to enter the confined space for routine and emergency service to the pumps. The LSLS has a reliable pumping capacity of approximately 0.8 MGD and operates in a lead-lag fashion.

The City's CIP identifies several possible future projects associated with the Northeast Quad Trunk Sewer to expand service to the northeastern part of the City. Those projects are shown in **Table 3.16-1**.

REGULATORY SETTING

Clean Water Act / National Pollutant Discharge Elimination System Permits

The Clean Water Act (CWA) is the cornerstone of water quality protection in the United States. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so that they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water."

The CWA regulates discharges from "non-point source" and traditional "point source" facilities, such as municipal sewage plants and industrial facilities. Section 402 of the Act creates the NPDES regulatory program which makes it illegal to discharge pollutants from a point source to the waters of the United States without a permit. Point sources must obtain a discharge permit from the proper authority (usually a state, sometimes EPA, a tribe, or a territory). NPDES permits cover industrial and municipal discharges, discharges from storm sewer systems in larger cities, storm water associated with numerous kinds of industrial activity, runoff from construction sites disturbing more than one acre, mining operations, and animal feedlots and aquaculture facilities above certain thresholds.

3.16 UTILITIES AND SERVICE SYSTEMS

TABLE 3.16-1: CIP PROJECTS – NORTHEAST QUAD TRUNK SEWER³

PROJECT NUMBER	PROJECT NAME	DESCRIPTION	YEAR ANTICIPATED FOR CONSTRUCTION
310-113	Northeast Quad Trunk Sewer - N3	The proposed new trunk sewer would expand service area for the long-term scenario. Improvements include: 1,120 linear feet of 12-inch, 2,250 linear feet of 18-inch, and 1,850 linear feet of 21-inch sewer.	2026
310-114	Northeast Quad Trunk Sewer - Branch 1 - N4	The proposed new trunk sewer branch would expand service area for the long-term scenario. Improvements include: 1,040 linear feet of 8-inch, 1,330 linear feet of 10-inch, and 1,360 linear feet of 12-inch sewer.	2027
310-115	Northeast Quad Trunk Sewer - Branch 2 - N5	The proposed new trunk sewer branch would expand service area for the long-term scenario. Improvements include: 525 linear feet of 8-inch, 525 linear feet of 10-inch, and 1,080 linear feet of 12-inch sewer.	2027
310-116	Northeast Quad Trunk Sewer to Lift Station - N6a	The proposed new trunk sewer branch would expand service area for the long-term scenario. Improvements include: 1,150 linear feet of 8-inch and 700 linear feet of 10-inch sewer.	2026
310-117	Northeast Quad Lift Station & Force Main - N6b	The proposed new lift station and force main would expand service area for the long-term scenario. Improvements include: 3,140 linear feet of dual 4-inch force main and lift station with 450 gpm capacity for build-out scenario.	2026

SOURCE: CITY OF DIXON, 2023.

Permit requirements for treatment are expressed as end-of-pipe conditions. This set of numbers reflects levels of three key parameters: (1) biochemical oxygen demand (BOD), (2) total suspended solids (TSS), and (3) pH acid/base balance. These levels can be achieved by well-operated sewage plants employing "secondary" treatment. Primary treatment involves screening and settling, while secondary treatment uses biological treatment usually in the form of "activated sludge."

All so-called "indirect" dischargers are not required to obtain NPDES permits. An indirect discharger is one that sends its wastewater into a city sewer system, so it eventually goes to a sewage treatment plant. Although not regulated under NPDES, "indirect" discharges are covered by another CWA program called pretreatment. "Indirect" dischargers send their wastewater into a city sewer system, which carries it to the municipal sewage treatment plant, through which it passes before being discharged to surface water.

The City's current NPDES Permit, which regulates the wastewater effluent quantity and quality upon discharge, was issued by the Central Valley Regional Water Quality Control Board and is Order R5-2014-0098.

³ City of Dixon, 2023. Comprehensive Capital Improvement Plan 2024 Thru 2028. Available: [https://www.cityofdixon.us/media/Engineering/5-Year%20\(FY24-28\)%20CIP.pdf](https://www.cityofdixon.us/media/Engineering/5-Year%20(FY24-28)%20CIP.pdf). Accessed: January 11, 2024.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act is California's statutory authority for the protection of water quality. Under the Porter-Cologne Act, the State is required to adopt policies, plans, and objectives that will protect the State's waters for the use by and enjoyment of Californians. In California, the SWRCB has the authority and responsibility for establishing policy related to the State's water quality. Regional authority is delegated by the SWRCB to a Regional Water Quality Control Board (RWQCB). The Porter-Cologne Act authorizes the SWRCB and RWQCB to issue NPDES permits.

Under the Central Valley Regional Water Quality Control Board (CVRWQCB) NPDES permit system, all existing and future municipal and industrial discharges to surface water within the City would be subject to regulation. NPDES permits are required for operators of municipal separate storm sewer systems, construction projects, and industrial facilities. These permits contain limits on the amount of pollutants that can be contained in each facility's discharge.

Northeast Quadrant Specific Plan

The following public facilities and wastewater policies apply to the proposed Project:

6.11.1 GENERAL POLICIES

1. Dedication requirements for all public facilities and easements including detention ponds, drainage channels, and other public facilities and utilities should be set forth in the PD, or equivalent mechanism.
2. All public uses should be designed and landscaped in a manner that complements adjacent non-public uses and should incorporate landscaping, setbacks and siting standards similar to those required in adjacent land uses.
3. All public facilities which are open to the general public should provide pedestrian access to adjacent uses and to the plan area pedestrian system, where feasible.
4. Project proponents shall contribute their fair share to on- and off-site improvements required to develop the specific plan.

6.11.3 SEWER

1. Strict implementation of all conditions and requirements of the City of Dixon Policies and Ordinances, as applicable to wastewater collection and disposal, will be enforced.

City of Dixon General Plan

The City's General Plan 2040 was adopted in 2021 and is considered the guiding document relative to growth and development of land and services within its municipal boundaries. The General Plan 2040 outlines the City's goals for future development, circulation, conservation of resources, and utilizes policies and actions necessary to achieve these goals.

The goals and objectives of the General Plan relevant to wastewater facilities and services include:

POLICIES: PUBLIC SERVICES AND FACILITIES ELEMENT

- PSF-2.6. Provide wastewater collection and treatment services, ensuring that adequate capacity is available to serve existing and future need in the community and that effluent can be treated and disposed in accordance with RWQCB standards.
- PSF-2.10. Ensure through the development review process that adequate public utilities and services are available to serve new development and ensure that new development pay its fair share of the costs of constructing new public utilities, providing public services, and upgrading existing facilities as needed to accommodate it.

City of Dixon Municipal Code

The City of Dixon Municipal Code (Code), Chapter 14.01, *Sewers*, consists of a number of provisions relating to wastewater designed to prevent the introduction of pollutants into the wastewater system; promote reuse and recycling of wastewater; provide fees for equitable distribution of operation maintenance and improvement; and enable compliance with U.S. Environmental Protection Agency use and disposal requirements and the Porter-Cologne Water Quality Control Act.

Utility Master Plans

The City of Dixon maintains a variety of Master Plan documents that guide the design, development, and maintenance of the utilities within the city limits. These include: *Sewer System Management Plan* (2023), *Water System Master Plan and Strategic Asset Management Plan* (2016).

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on the environment associated with wastewater utilities if it will:

- Require or result in the relocation or construction of new or expanded wastewater treatment and/or collection facilities, the construction of which could cause significant environmental effects.
- Result in a determination by the wastewater treatment provider which serves or may serve the Project that it does not have adequate capacity to serve the project's projected demand in addition to the providers existing commitments.

IMPACTS AND MITIGATION MEASURES

Impact 3.16-1: The proposed Project would not result in a determination by the wastewater treatment and/or collection provider which serves the project that the provider does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. (Less than Significant)

According to the Sewer Study prepared for the proposed project, as shown in Appendix D, based on the proposed land use, the proposed Project is anticipated to generate a total design sanitary sewer flow of 1.0 MGD. A sanitary sewer main is proposed to route sewer flows from the project site and adjacent industrial parcels southward to the existing 21" sewer main in Fitzgerald Drive, where it will be carried to the existing wastewater treatment plant south of the city. The WWTF maintains the average daily dry weather flow limit of 1.82 MGD based on the treatment, storage, and disposal capacity of the WWTF and Maximum Monthly Average Flow of 2.0 MGD. Furthermore, the allocation of capacity for the City of Dixon's Northeast Quadrant Specific Plan (NEQSP) was approximately 2.85 MGD.⁴ As mentioned in the environmental setting, Phase 1 of the WWTF upgrade increased the AAF capacity of the WWTF to 1.9 MGD and was constructed on four acres in a 14-acre site at the north edge of the original WWTF, which covered 430 acres. The Phase 1 upgrade/expansion was designed so that the WWTF can be further expanded to an AAF capacity of 2.5 MGD. In total, the average annual influent flow has been less than 1.3 MGD.⁵ With the addition of the proposed Project, the average annual influent flow is anticipated to be 2.3 MGD. The City has additional land (in the 14-acre site) that could be used to further expand the WWTF beyond 2.5 MGD without reducing the area used for land application. Additionally, the City collects wastewater rates and impact fees to fund the operation, maintenance, and expansion of the collection system and WWTF. Furthermore, the City must also periodically review and update their Wastewater and Sewer Master Plans, and as growth continues to occur within the Planning Area, the City will identify necessary system upgrades and capacity enhancements to meet growth.

The development of the proposed Project under this permitted option would not exceed the wastewater discharge requirements in the WDR Order. Therefore, the proposed Project would have a ***less than significant*** impact relative to this wastewater treatment capacity.

MITIGATION MEASURE(S)

None Required.

⁴ Morton Pitalo. Draft Sewer Study. Dixon 257. M&P Project No. 20-0024-00 (v.4). January 2024.

⁵ California Regional Water Quality Control Board Central Valley Region. Waste Discharge Requirements for the City of Dixon Wastewater Treatment Facility. Order R5-2014-0098. 2014.

Impact 3.16-2: The proposed Project would not result in the construction of new wastewater treatment or collection facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. (Less than Significant)

The wastewater collection and conveyance system that will serve the proposed Project will consist of engineered infrastructure consistent with the City's existing infrastructure requirements. A sanitary sewer main is proposed to route sewer flows from the project site and adjacent industrial parcels. The sanitary sewer trunk main will run from the north boundary line of the project site southward within the future Professional Drive right-of-way. The proposed sewer main will continue southward along Professional Drive and tie into the existing 21-inch sewer main in Fitzgerald Way, where it will be carried to the existing wastewater treatment plant south of the city.

New wastewater collection and conveyance infrastructure needed for the proposed Project will require trenching/excavation of earth, and placement of pipe within the trenches at specific locations, elevations, and gradients. Utility lines within the Project site and adjacent roadways would be extended throughout the project site. The wastewater collection/conveyance infrastructure design will be required to be reviewed by the Public Works Department to ensure consistency with the City's engineering standards through the improvement plan process. This improvement plan process will include full engineering design (i.e., location, depth, slope, etc.) of all conveyance infrastructure as well as a review of new sewer pump stations and new force mains if needed. Ultimately, the sanitary sewer collection system will be an underground collection system installed as per the City of Dixon standards and specifications. Sanitary sewer disposal and treatment will be to the City of Dixon WWTF.

According to the *Sewer Study* prepared for the proposed project, as shown in Appendix K, based on the proposed land use, the proposed Project is anticipated to generate a total design sanitary sewer flow of 1.0 MGD. A sanitary sewer main is proposed to route sewer flows from the project site and adjacent industrial parcels southward to the existing 21" sewer main in Fitzgerald Drive, where it will be carried to the existing wastewater treatment plant south of the city. The WWTF maintains the average daily dry weather flow limit of 1.82 MGD based on the treatment, storage, and disposal capacity of the WWTF and Maximum Monthly Average Flow of 2.0 MGD. Furthermore, the allocation of capacity for the City of Dixon's Northeast Quadrant Specific Plan (NEQSP) was approximately 2.85 MGD. As mentioned in the environmental setting, Phase 1 of the WWTF upgrade increased the AAF capacity of the WWTF to 1.9 MGD and was constructed on four acres in a 14-acre site at the north edge of the original WWTF, which covered 430 acres. The Phase 1 upgrade/expansion was designed so that the WWTF can be further expanded to an AAF capacity of 2.5 MGD. In total, the average annual influent flow has been less than 1.3 MGD. With the addition of the proposed Project, the average annual influent flow is anticipated to be 2.3 MGD. As of 2014, the flows to the WWTF were approximately 1.2 MGD (City of Dixon, 2014). The City has additional land (in the 14-acre site) that could be used to further expand the WWTF beyond 2.5 MGD without reducing the area used for land application. Additionally, the City collects wastewater rates and impact fees to fund the operation, maintenance, and expansion of the collection system and WWTF. Furthermore, the City must also periodically review and update their Wastewater and Sewer Master

Plans, and as growth continues to occur within the Planning Area, the City will identify necessary system upgrades and capacity enhancements to meet growth.

The City of Dixon WWTF has the capacity to treat and dispose of the proposed 1.0 MGD (PWWF) increase in flows from the proposed Project although the wastewater treatment plant would require upgrades or improvements in order to serve the proposed Project, this would not cause additional significant environmental effects due to the proposed Project, as such potential improvements have already been planned for. Therefore, implementation of the proposed Project would have a *less-than-significant impact* relative to this topic.

MITIGATION MEASURE(S)

None Required.

CUMULATIVE IMPACTS

The cumulative setting includes all areas covered in the service areas of the City's wastewater system.

Impact 3.16-3: The proposed Project, in combination with other cumulative development, would not exceed the provider's capacity to serve future projected demand in addition to the provider's existing commitments. (Less than Significant)

As cumulative projects come online within the WWTP service area, the wastewater collection, conveyance, and treatments systems would continue to grow, consistent with the City's existing infrastructure requirements. New sanitary sewer mains could be added as projects are proposed. The City still owns the 430 acres of the original WWTF site. Treated effluent that is generated at the WWTF is disposed of through land application with no discharge to any of the open channels or creeks near the WWTF. Within the City's 14-acre site, there is space to further expand the WWTF beyond 2.5 MGD without reducing the area used for land application.

Because the WWTF can be expanded to accommodate treatment and disposal of the projected cumulative flows in the city, and because of the Proposed Plan policies, this cumulative impact is considered *less-than-significant* regarding wastewater treatment capacity.

MITIGATION MEASURE(S)

None Required.

3.16.2 WATER SUPPLIES

ENVIRONMENTAL SETTING

The City of Dixon is served by two water suppliers: the City and the California Water Service Company (Cal Water). The City’s 2020 water service area includes a total of 3,148 customer connections and is serving a population of approximately 9,037 people. Based on the anticipated growth in the UWMP, water demands in the City water service area are expected to increase approximately 228 percent from 2020 demands of 702 million gallons (MG) to 2045 demands of 2,307 MG. Most of that growth is expected in the next ten years.

The City’s water service area is divided into three sub-areas: North Zone, Core Zone, and South Zone, and includes predominantly residential (single family and multi-family) customers (comprising approximately 93 percent of the City’s connections), with additional commercial, industrial, government, and landscape customers. There are no existing City-owned pipelines that connect the South Zone with the North and Core Zones. The City provides potable water to the residences and businesses within its water service area.

The City has four active groundwater wells, one well on standby, and one future well in its water service area. This includes the Park Lane Well, School Well, Valley Glen Well, and Watson Ranch Well which are active and the Industrial Well is on standby. The future well, the Homestead Well is currently under construction. The Industrial Well is located in the northeast of the City’s water service area, School Well in the west, Watson Ranch Well in the northwest, Park Lane Well in the southeast, and Valley Glen Well in the south. The Homestead Well will be located in the southeastern part of the City’s water service area. The well capacities of each existing well and the total capacity of the active wells (6,600 gallons per minute (gpm)) are shown in **Table 3.16-2**.

TABLE 3.16-2: EXISTING GROUNDWATER WELL CAPACITY

WELL NUMBER	FACILITY NAME	STATUS	WELL CAPACITY, GPM
1	Park Lane Well	Active	2,500
2	School Well	Active	1,100
3	Valley Glen Well	Active	1,900
4	Watson Ranch Well	Active	1,100
5	Industrial Well	Standby	800
Total Capacity of Active Wells			6,600

SOURCE: CITY OF DIXON 2020 UWMP, TABLE 3-1 EXISTING GROUNDWATER WELL CAPACITY, 2022.

The City has a total of four (4) storage tanks: Park Lane Tank 1 (1 MG), Park Lane Tank 2 (1 MG), Watson Ranch Tank (0.8 MG), and Fitzgerald Tank (1.5 MG). The total storage capacity of the four tanks is approximately 4.3 MG. A pump station is located at each of the tank sites to pump stored water from the tanks into the distribution system. Park Lane Tanks 1 and 2 and Watson Ranch Tank are filled directly from their corresponding wells. The Fitzgerald Tank is filled from the distribution system since the Industrial Well is now on standby. The pump stations at Watson Ranch Tank and Park Lane Tanks are used to supply groundwater into the distribution system as well as to pump the

stored tank volumes during high demands. Fitzgerald Tank is fed by the distribution system and used to meet peak demand periods. The City has a total pumping capacity of 8,650 gpm (12.5 MGD) and a total firm capacity (total capacity of all the wells available to service the water demand if the largest well is out of service) of 5,650 gpm (8.1 MGD).

The City maintains approximately 45 miles of transmission and distribution system mains ranging in size from 6 to 14 inches in diameter. Approximately 59 percent of the City's water system consists of 8-inch diameter pipelines while approximately 34 percent of the system consists of 12-inch diameter pipelines. The remaining 7 percent consists of 4-inch, 10-inch, and 14-inch diameter pipelines.

The City's 2020 *Urban Water Management Plan (UWMP)* was adopted by the City Council in April 2022. The City's 2020 UWMP included existing and projected water demands for existing and projected future land uses to be developed within the City's Sphere of Influence through 2045. The water demand projections in the City's 2020 UWMP included existing City water demands, future water demands for developments within the existing City limit, and future water demands for future service areas outside the existing City limit. The 2020 UWMP calculations and analyses include projected growth in the Northeast Quadrant Area, consisting of an employment area with a mix of regional commercial, industrial, and campus mixed use land uses to increase job generation.⁶

Implementation of the proposed Project was partially accounted for in the growth forecasts when the City of Dixon was preparing the 2020 UWMP, with the exception of residential uses as proposed in the proposed Project. Consistent with Water Code 10910(c)(3), the impact analysis at the end of this section provides an assessment of supply for the City, which will build from the supply summary presented below.

City of Dixon Water Service

This section presents the City's water service area including history and growth information for the City.

CITY OF DIXON WATER SERVICE AREA

The City is one of two water service purveyors within the City limits. It provides potable water to the residences and businesses within its water service area. The remaining residences and businesses within the City limits are served by California Water Service (Cal Water). The City's water facilities produce, treat, store, and deliver drinking water to its customers. The City produces water by pumping it from City-owned groundwater wells. Groundwater is treated before it enters the distribution system. The City also owns and operates an extensive network of pipelines, storage tanks, and pumping facilities to deliver drinking water to its customers.

⁶ City of Dixon, 2022. 2020 Urban Water Management Plan. Page 3-8. Available <https://www.cityofdixon.us/media/Water/R%20-%20066%20-%20City%20of%20Dixon%20-%202020%20UWMP%20-%20Public%20Review%20Draft%20-%20March%2030,%202022.pdf>. Accessed January 11, 2024.

3.16 UTILITIES AND SERVICE SYSTEMS

CITY OF DIXON CURRENT AND PROJECTED POPULATION

The City's 2020 water service area population is 9,037 residents as reported in the City's 2020 Electronic Annual Report as submitted to the State Water Resources Control Board (State Water Board). It anticipates population growth and future planned development in its water service area, which would increase demand for water. Planned and future residential growth is expected in the Southwest and East Dixon areas, along with residential and non-residential growth in the Northeast.

Projected future water demands have been estimated based on the anticipated growth as defined by the 2040 General Plan, adopted by the Dixon City Council in May 2021. Based on the anticipated growth, water demands in the City water service area are expected to increase approximately 228 percent from 2020 demands of 702 million gallons (MG) to 2045 demands of 2,307 MG. Most of that growth is expected in the next ten years.

City of Dixon Water Demand

EXISTING AND PROJECTED WATER DEMAND

This section describes and quantifies the City's historical and projected potable water use. Water demands have rebounded (increased) somewhat in recent years with the end of drought conditions and increased development activity. **Table 3.16-3** shows the City's water demand (based on land use sector) from 2015 to 2019 analyzed in the City's UWMP.

TABLE 3.16-3: HISTORICAL WATER DEMAND BY WATER USE SECTOR (MG)

	2015	2016	2017	2018	2019
Single-Family	274	301	302	344	315
Multi-Family	24.3	25.6	26.0	27.4	28.3
Commercial	51.1	53.5	52.5	55.2	66.0
Industrial	52.3	49.4	52.1	50.7	51.2
Institutional/Governmental	2.32	2.70	2.48	2.32	1.99
Landscape	115	132	151	148	146
Other	0.00	0.00	14.9	12.6	5.90
Losses	--	--	--	--	28.2
Total Water Demand	519	564	601	640	642

SOURCE: CITY OF DIXON 2020 UWMP, TABLE 4-1 HISTORICAL WATER DEMAND BY WATER USE SECTOR, MG, 2022.

The City's water demand is anticipated to continue to increase as approved projects build out and new developments are approved and constructed within the City's water service area in accordance with the City's General Plan. The 2020 UWMP projected water demands, as documented in the City's 2020 UWMP, are shown in **Table 3.16-4**.

TABLE 3.16-4: PROJECTED USE FOR POTABLE AND NON-POTABLE WATER (MG)

	2025	2030	2035	2040	2045
Single-Family	649	637	625	613	883
Multi-Family	120	221	322	423	423
Commercial	95	148	202	255	255
Industrial	233	268	302	337	383
Institutional/Governmental	5	9	13	17	17
Landscape	232	172	113	53	53
Other	5	6	8	9	11
Losses	120	159	198	238	282
Total Water Demand	1,458	1,620	1,782	1,945	2,307

SOURCE: CITY OF DIXON 2020 UWMP, TABLE 4-1 HISTORICAL WATER DEMAND BY WATER USE SECTOR, MG, 2022.

City of Dixon Potable Water Supplies

The City’s existing potable water supply consist of groundwater pumped from City-owned and operated wells from the underlying Solano Groundwater Subbasin. The City’s groundwater supply is expected to meet its projected water demands. The City only uses as much groundwater as is necessary to meet its demands. The City will continue to monitor its existing groundwater wells and continue to participate in the Solano Groundwater Sustainability Agency Board for groundwater management of the Solano Subbasin.

GROUNDWATER SUPPLY

The Solano Subbasin underlies the City and is a part of the Sacramento Valley Basin. The Sacramento Valley Groundwater Basin has been divided into several smaller subbasins using institutional boundaries established by DWR. The Sacramento Valley Groundwater Basin is located in north central California and is bounded on the east by the Sierra Nevada and Cascade Ranges, and on the west by the North Coast Range. The Sacramento Valley Groundwater Basin also extends from about 5 miles north of Red Bluff southward for 150 miles to the Sacramento-San Joaquin Delta and covers an area of approximately 6,000 square miles.

Basin Description. The City’s service area overlies the Solano Subbasin (Basin No. 5-21.66). The Solano Subbasin underlies the City and is a part of the Sacramento Valley Groundwater Basin. The Sacramento Valley Groundwater Basin is located in north central California and is bounded on the east by the Sierra Nevada and Cascade Mountain Ranges, and on the west by the North Coast Mountain Range. The Sacramento Valley Groundwater Basin also extends from about 5 miles north of Red Bluff southward for 150 miles to the Sacramento-San Joaquin Delta and covers an area of approximately 6,000 square miles. The Solano Subbasin is not adjudicated, and DWR has not identified the subbasin as either in overdraft or expected to be in overdraft.

The Solano Subbasin is bounded by Putah Creek on the north, the Sacramento River on the east, the North Mokelumne River on the southeast, the San Joaquin River on the south, the non-water bearing geologic units of the Great Valley Sequence on the northwest and the Suisun-Fairfield Valley Basin on the south side. The western hydrologic divide corresponds to the crest of the English Hills and Montezuma Hills and separates the Solano Subbasin from the Suisun-Fairfield Groundwater Basin.

3.16 UTILITIES AND SERVICE SYSTEMS

The DWR Bulletin 118 reports that the groundwater elevations prior to 1912 represent the groundwater basin in its natural state. Between the years 1912 and 1932, precipitation was below average, which resulted in lower groundwater levels. In 1932 to 1941 groundwater levels recovered slightly because of above average precipitation. After 1941, groundwater levels declined due to increasing agricultural and urban development and the levels reached their lowest in the 1950s⁷.

Since the Solano Subbasin was designated as a medium priority subbasin, a GSP was required to be developed and submitted to DWR by January 31, 2022. The City is a part of the Solano Subbasin GSA. The Solano Subbasin GSA is a Joint Powers Agency representing the City of Dixon, City of Rio Vista, Solano County, Dixon Resource Conservation District (RCD), Solano RCD, Maine Prairie Water District and Reclamation District (RD) 2068 and associated members from the Solano Farm Bureau, Solano County Agricultural Advisory Committee, and Cal Water Dixon. The Joint Powers Agreement, effective June 8, 2017, created the Solano GSA.

The Solano Subbasin GSA is part of the Solano Collaborative which is made up of a total of five GSAs located in the Solano Subbasin. The five GSAs include the following:

- Solano Subbasin GSA
- City of Vacaville GSA
- Northern Delta GSA
- Sacramento County GSA
- Solano Irrigation District GSA

Project Future Groundwater Use. The City plans to use groundwater in the future to meet its demands. **Table 3.16-5** summarizes the projected water supply through 2045. The projected water supply is equal to the projected water demand summarized in Table 3.16-3.

TABLE 3.16-5: PROJECTED GROUNDWATER SUPPLIES

	2025	2030	2035	2040	2045
Total Groundwater Production, Solano Subbasin (MG)	1,458	1,620	1,782	1,945	2,307

SOURCE: CITY OF DIXON 2020 UWMP, TABLE 6-2, GROUNDWATER SUPPLIES – PROJECTED.

SURFACE WATER SUPPLY

The City does not currently use or plan to use surface water. Per the Solano Subbasin GSP, the primary surface water bodies within the subbasin include Putah Creek, Lake Berryessa, and waterways within the Delta (Sacramento River, San Joaquin River, North Mokelumne River, and

⁷ DWR, 2004, California's Groundwater, Bulletin 118, Sacramento Valley Groundwater Basin, Solano Subbasin, February 27.

various sloughs⁸. The Solano Subbasin GSP evaluated the interconnection between surface water and groundwater within the Solano Subbasin. Surface waterways can either gain flow from discharging groundwater or recharge groundwater through seepage. Areas where the groundwater is found close to the surface may suggest a direct connection between the groundwater and surface water. In areas where the groundwater is found at depths greater than 20 feet, the groundwater is more likely to be disconnected from the surface water. The Solano Subbasin GSP indicates that surface water and groundwater is most likely disconnected under the City.

STORMWATER SUPPLY

The City does not currently use or plan to use stormwater for beneficial reuse.

WASTEWATER AND RECYCLED WATER SUPPLY

The City does not currently use recycled water nor plans to use recycled water for beneficial use.

ADDITIONAL PLANNED FUTURE WATER SUPPLIES

The City of Dixon has no additional planned future water supplies, including surface water, stormwater, or recycled water. Existing groundwater supplies are anticipated to meet existing and projected future water demands, including those associated with the proposed Project.

Water Supply Availability and Reliability

Because the Solano Subbasin is not adjudicated and is not in overdraft or expected to be in overdraft, and the City does not have a contract that limits its groundwater use, the City uses as much groundwater as is necessary to meet demands. The projected water supply is equal to the projected water demand summarized in Table 5-3. The volumes shown are equal to the projected demands and are not intended to represent the City's maximum pumping volume. **Table 3.16-6** summarizes the projected water supply through 2045.

TABLE 3.16-6: PROJECTED WATER SUPPLIES - NORMAL YEARS, MG/YEAR

2025	2030	2035	2040	2045
1,466	1,628	1,790	1,953	2,315

^(A) PROJECTED WATER SUPPLY IS EQUIVALENT TO PROJECTED DEMAND IN TABLE 5-3.

SOURCE: THE CAMPUS WATER SUPPLY ASSESSMENT, WEST YOST, 2024.

The City’s water supply reliability as described in the City’s 2020 UWMP is summarized below. The City is well-positioned to withstand the effects of a single dry year and a five-year drought for any period between 2025 and 2045. The City’s drought risk was specifically assessed between 2021 and 2025, assuming that the next five years are dry years. In each case, water supplies comfortably meet water demands. This remains true whether the drought occurs in 2021, 2045, or any year between.

⁸ Solano Subbasin. Solano Subbasin GSA. Solano Collaborative. November 2021. Solano Subbasin Groundwater Sustainability Plan. Section 3.3.7 Interconnected Surface Water.

3.16 UTILITIES AND SERVICE SYSTEMS

The reliability of each of the City’s existing and additional planned water supplies and their projected availability during normal, single dry, and multiple dry years as described in Section 7 of the City’s 2020 UWMP, is described below and summarized in **Table 3.16-7**.

TABLE 3.16-7: WATER SUPPLY RELIABILITY IN NORMAL, SINGLE DRY AND MULTIPLE DRY YEARS, MG

	<i>NORMAL YEARS</i>	<i>SINGLE DRY YEARS</i>	<i>MULTIPLE DRY YEARS^(A)</i>
<i>SUPPLY TOTALS</i>			
2025	1,458	1,458	1,588
2030	1,620	1,620	1,750
2035	1,782	1,782	1,912
2040	1,945	1,945	2,235
2045	2,307	2,307	2,586
<i>DEMAND TOTALS</i>			
2025	1,458	1,458	1,588
2030	1,620	1,620	1,750
2035	1,782	1,782	1,912
2040	1,945	1,945	2,235
2045	2,307	2,307	2,586

^(A) PROJECTED FIFTH CONSECUTIVE DRY YEARS SUPPLY AND PROJECTED DEMANDS SHOWN.

SOURCE: CITY OF DIXON 2020 UWMP, TABLE 6-2, GROUNDWATER SUPPLIES – PROJECTED.

NORMAL YEARS

Normal or wet water years are those water years that match or exceed median rainfall and runoff levels. Projected normal year supply and projected demands from are compared in Table 3.16-7. The City’s water supplies are reliable during normal years. No water supply shortage is anticipated during normal years through 2045.

SINGLE DRY YEARS

During a single dry year, all of the City’s existing surface water allotments are subject to some level of reduction. Projected single dry year supply and projected demands are compared in Table 3.16-7. No water supply shortage is anticipated during single dry years through 2045. The City’s water supplies are reliable during single dry years.

MULTIPLE DRY YEARS

During multiple dry years, the City’s surface water supplies (from both the CVP and SCWSP) may be significantly reduced. Thus, in the event of drought, the City will have to depend more heavily on conservation efforts, groundwater, and the proposed future supply projects.

Projected five consecutive dry years supply and projected demands are compared in Table 3.16-7. No water supply shortage is anticipated during the five consecutive dry years through 2045. The City’s water supplies are reliable during five consecutive dry year period.

REGULATORY SETTING

Safe Drinking Water Act

The federal Safe Drinking Water Act as passed in 1947 and amended in 1986 and 1996 is the Country's primary law regulating drinking water quality and is implemented by the United States Environmental Protection Agency (US EPA). The Safe Drinking Water Act authorizes the US EPA to set national health-based standards for drinking water and requires actions to protect drinking water and its sources. Additionally, it provides for treatment, monitoring, sampling, analytical methods, reporting, and public information requirements. Implementation of the Act, in California, is under the jurisdiction of the California Department of Public Health (CDPH), Division of Drinking Water and Environmental Management. Drinking Water regulations are set forth in the California Code of Regulations (CCR), Titles 7 and 22.

Water Conservation Projects Act

California's requirements for water conservation are codified in the Water Conservation Projects Act of 1985 (Water Code Sections 11950 – 11954).

Consistent with California Water Code Sections 11950 – 11954, the City has implemented various water conservation efforts, as well as Water Shortage Contingency Plan that identifies actions that can be taken to respond to catastrophic interruption of water supply.

Senate Bill (SB) 610

Senate Bill (SB) 610 was adopted in 2001 and reflects the growing awareness of the need to incorporate water supply and demand analysis at the earliest possible stage in the land use planning process. SB 610 amended the statutes of the Urban Water Management Planning Act, as well as the California Water Code Section 10910 *et seq.* The foundation document for compliance with SB 610 is the Urban Water Management Plan (UWMP), which provides an important source of information for cities and counties as they update their general plans. Likewise, planning documents such as general plans and specific plans form the basis for the demand information contained in an UWMP, as well as a Water Supply Assessment required under SB 610.

Water Code Section 10910 (c)(4) states "If the city or county is required to comply with this part pursuant to subdivision (b), the water assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses."

Water supply planning under SB 610 requires reviewing and identifying adequate available water supplies necessary to meet the demand generated by a project, as well as the cumulative demand for the general region over the next 20 years, under a broad range of water conditions. This information is typically found in the current UWMP for the project area. SB 610 requires the identification of the public water supplier for a project.

3.16 UTILITIES AND SERVICE SYSTEMS

In addition, SB 610 requires the preparation of a Water Supply Assessment if a project meets the definition of a “Project” under Water Code Section 10912 (a). The Code defines a “Project” as meeting any of the following criteria:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A commercial building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A hotel or motel with more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or industrial park, planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- A mixed-use project that includes one or more of these elements; or
- A project creating the equivalent demand of 500 residential units.

Based on the following assumptions, SB 610 does apply to the proposed Project:

1. The proposed Project is subject to CEQA and an EIR is required.
2. The proposed Project, a mixed-use project that includes one or more of these elements, meets the definition of a “Project” as specified in Water Code section 10912(a) paragraph (3) as defined for mixed-use development.

The proposed Project has not been the subject of a previously adopted Water Supply Assessment (WSA) and has not been included in an adopted WSA for a larger project. Thus, a WSA, as required by these criteria under SB 610, has been prepared for the Project. Water Code sections 10910 through 10915 delineate the specific information that must be included in the WSA. The Water Supply Assessment is included in Appendix H of this EIR.

California Model Water Efficient Landscape Ordinance

The Water Conservation in Landscaping Act was enacted in 2006, requiring the DWR to update the Model Water Efficient Landscape Ordinance (MWELo). In 2009, the Office of Administrative Law (OAL) approved the updated MWELo, which required a retail water supplier or a county to adopt the provisions of the MWELo by January 1, 2010, or enact its own provisions equal to or more restrictive than the MWELo provisions. Because the City of Dixon is a “local agency” under the MWELo, it must require “project applicants” to prepare plans consistent with the requirements of MWELo for review and approval by the City.

The MWELo applies to new construction with a landscape area greater than 2,500 square feet. The MWELo “highly recommends” use of a dedicated landscape meter on landscape areas smaller than 5,000 square feet, and requires weather-based irrigation controllers or soil-moisture based controllers or other self-adjusting irrigation controllers for irrigation scheduling in all irrigation systems. The MWELo provides a methodology to calculate total water use based upon a given plant

factor and irrigation efficiency.⁹ Finally, the MWELo requires the landscape design plan to delineate hydrozones (based upon plant factors) and then to assign a unique valve for each hydrozone (low, medium, high water use).

Northeast Quadrant Specific Plan

The following public facilities and water supply policies apply to the proposed Project:

6.11.1 GENERAL POLICIES

1. Dedication requirements for all public facilities and easements including detention ponds, drainage channels, and other public facilities and utilities should be set forth in the PD, or equivalent mechanism.
2. All public uses should be designed and landscaped in a manner that complements adjacent non-public uses and should incorporate landscaping, setbacks and siting standards similar to those required in adjacent land uses.
3. All public facilities which are open to the general public should provide pedestrian access to adjacent uses and to the plan area pedestrian system, where feasible.
4. Project proponents shall contribute their fair share to on- and off-site improvements required to develop the specific plan.

6.11.2 WATER

1. Efficient plumbing fixtures, irrigation systems, drought-tolerant landscape materials, and other methods should be utilized to reduce overall water consumption. Requirements for landscaping materials with low irrigation requirements are described in the Form and Design Element (Section 3 [of the Specific Plan]).

City of Dixon General Plan

The City's General Plan 2040 was adopted in 2021 and is considered the guiding document relative to growth and development of land and services within its municipal boundaries. The General Plan 2040 outlines the City's goals for future development, circulation, conservation of resources, and utilizes policies and actions necessary to achieve these goals.

The goals and objectives of the General Plan relevant to water supply include:

⁹ In calculating Estimated Total Water Use, the MWELo requires use of at least a 71% irrigation efficiency factor. Assuming 71% irrigation efficiency, the average plant factor must be 0.50. It would be possible to stay within the water budget if the average plant factor were higher than 0.50 by designing a system with an irrigation efficiency higher than 71%. The relationship between a Plant Factor (PF) and Irrigation Efficiency (IE) in the Applied Water formula is: $AW=(ETo*PF)/IE$.

3.16 UTILITIES AND SERVICE SYSTEMS

POLICIES: PUBLIC SERVICES AND FACILITIES ELEMENT

- PSF-2.1. Coordinate with the California Water Service Company (Cal Water) to ensure the provision of adequate water service to Dixon residents and businesses.
- PSF-2.4. Prioritize improvements to the City's water system to ensure the provision of safe, clean water.
- PSF-2.10. Ensure through the development review process that adequate public utilities and services are available to serve new development and ensure that new development pay its fair share of the costs of constructing new public utilities, providing public services, and upgrading existing facilities as needed to accommodate it.

Utility Master Plans

The City of Dixon maintains a variety of Master Plan documents that guide the design, development, and maintenance of the utilities within the city limits. These include: *Urban Water Management Plan (2020)* and *Water System Master Plan and Strategic Asset Management Plan (2016)*.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project may have a significant impact on the environment associated with water supply if it would:

- Require or result in the relocation or construction of new or expanded water treatment facilities, the construction of which could cause significant environmental effects; or
- Have insufficient water supplies available to serve the Project from existing entitlements and resources, or if new or expanded entitlements are needed.

IMPACTS AND MITIGATION MEASURES

Impact 3.16-4: The proposed Project would not require construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. (Less than Significant)

The provision of public services and the construction of onsite infrastructure improvements will be required to accommodate the development of the proposed Project. Water distribution will be by an underground distribution system to be installed as per the City of Dixon standards and specifications.

The proposed Project would require extension of offsite water conveyance infrastructure to the Project site for potable water and irrigation water. All offsite water utility improvements will be in or adjacent to existing roadways along the perimeter of the Project site, thereby limiting any potential impact to areas that were not already disturbed.

The proposed Project would also require the construction of new onsite water conveyance infrastructure for potable water and irrigation water. All onsite water utility improvements will be within existing agricultural lands, the impacts of which are discussed in Section 3.2, Agricultural

Resources. Construction of the onsite potable water infrastructure would not have the potential to induce growth beyond what is proposed because the infrastructure is not oversized to accommodate additional projects or growth.

The City of Dixon Water System Master Plan (WSMP) by West Yost Associates determined the existing conditions of the Dixon water system at the end of 2016 and recommended water system improvements to meet the needs future development. The City of Dixon's existing water system is broken up into three zones, the North, South and Core Zones and the Zones are hydraulically connected to each other. The Campus site lies within the North Zone. The Dixon water system relies completely on groundwater wells. The city has three existing wells, one of which is a standby well for the City, and two storage tanks serving the Core and North Zone service areas. The total capacity of the two operational wells is 3,300 gallons per minute and the total usable volume of the tanks is 1.8 million gallons. Two existing booster pump stations serve the Core and North Zones. Existing 12" water pipelines exist south-west of the project site in East Dorset Drive and to the south of the project in Vaughn Road.¹⁰

The WSMP proposes construction of a new 1,500 gallon per minute well in the Northeast Quadrant (North Zone) by 2030. In future buildout conditions, an additional well and 0.26 MG of useable storage are proposed within the Northeast Quadrant (North Zone). Construction of a new 1,500 gpm well is proposed as part of proposed Project and will be located in the northwest portion of the site. The proposed well site can accommodate a future storage tank and an additional well will be constructed within the Northeast Quadrant in future build-out conditions when deemed necessary by the City of Dixon. The future second well site will tentatively be located at the northeast edge of the specific plan.

The proposed Project, if approved by the City, is capable of being served by the City from the City's existing and future portfolio of water supplies. The water supply for the proposed Project will have the same water supply reliability and water quality as the water supply available to each of the City's other existing and future water customers.

The proposed Project would not require the construction of new water treatment facilities or expansion of existing water treatment facilities for water service. Implementation of the proposed Project would have a ***less-than-significant*** impact relative to this topic.

MITIGATION MEASURE(S)

None Required.

¹⁰ City of Dixon, 2024. The Campus (Dixon 257) Draft Water Study. Prepared by Morton & Pitalo. Page 3. February.

Impact 3.16-5: The proposed Project has sufficient water supplies available to serve the Project from existing entitlements and resources. (Less than Significant)

PROJECTED WATER SUPPLY FOR THE PROPOSED PROJECT

Water demands for the proposed Project will be served using the City's existing and future portfolio of water supplies. As discussed above, the City operates a total of five groundwater wells, which have a total capacity of about 8,500 gpm (12.2 MGD or 13,700 AFY). For planning purposes, the City assumes a firm water supply calculated as the total supply available with the largest well out of service. The City's existing firm water supply is 4,200 gpm (6.0 MGD or 6,800 AFY). The WSMP recommends four additional wells be constructed to meet the buildout demand projections. The total buildout supply capacity with the recommended new wells is projected to be 14,500 gallons per minute (gpm) (20.8 MGD or 23,400 AFY) with the firm supply capacity (assuming the largest well out of service) to be 12,000 gpm (17.3 MGD or 19,400 AFY).

In order to fulfill the recommendations of the WSMP and Policy PSF.2.3 of the General Plan (which requires the City to improve the reliability of the City's Water system to meet future demand, including through the construction of additional wells), the proposed Project will provide a 1,500 gallon per minute well in the northwest corner of the Project as well extend the City of Dixon's water system northeastward with connections in East Dorset Drive and Vaughn Road. The proposed well site can accommodate a future storage tank and an additional well will be constructed within the Northeast Quadrant in future build-out conditions when deemed necessary by the City of Dixon. In future buildout conditions, an additional well and 0.26 MG of useable storage are proposed within the Northeast Quadrant (North Zone). In addition to the proposed well, 12" water mains serving the site and the parcels north are proposed with two connections in East Dorset Drive and two connections in Vaughn Road.

PROJECTED WATER DEMAND FOR THE PROPOSED PROJECT

The projected water demands for buildout of the proposed Project are 191 million gallons (MG) per year. Water demands for the proposed Project were estimated based on unit water use factors from the City's 2016 WSMP. Consistent with the 2016 WSMP, demands for the proposed Project include 14 percent of unaccounted-for water.

It is anticipated that the proposed Project, if approved by the City, be served from the City's existing and future portfolio of water supplies. The City's existing and future supplies consist solely of groundwater pumped from City-owned and operated wells from the underlying Solano Groundwater Subbasin. Proponents of the proposed Project will be responsible for funding and constructing the infrastructure required to deliver water supplies to the proposed Project area. The inclusion of existing and planned future water supplies is specifically allowed by Water Code Section 16031(b).

Water use factors as presented in the City’s 2016 WSMP¹¹ were used to estimate the projected water demand for the proposed Project. **Table 3.16-8** summarizes the land uses and projected water demands for the proposed Project.

TABLE 3.16-8: PROJECTED WATER DEMAND FOR THE PROPOSED PROJECT

DESCRIPTION	USE AREA, ACRES	WATER USE TYPE	WATER USE FACTOR, AFY	PROJECTED WATER DEMAND, MG/YEAR
Single Family Residential	132.73	Single Family Residential	2.7	117
Multi-Family Residential	11.54	Multi-Family Residential	3.9	15
Industrial	47.87	Industrial	1.5	23
Neighborhood Commercial	2.49	Commercial	1.3	1
Well Site	1.58	Government	0.3	0
Roads, Open Space, and Basin	49.98	Other	0.0	0
Park and Landscaping	8.42	Landscape	3.0	8
Subtotal	254.61	-	-	164
Unaccounted For Water				27
Total Water Demand				191

SOURCE: THE CAMPUS WATER SUPPLY ASSESSMENT, West Yost, 2024.

Determination of Water Supply Sufficiency

Water Code section 10910 states:

10910(c)(4) If the city or county is required to comply with this part pursuant to subdivision (b), the water supply assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses.

Pursuant to Water Code section 10910(c)(4), and based on the technical analyses described in the Dixon 257 Water Supply Assessment, as shown in Appendix H, the City’s projected water supplies are sufficient to meet existing and projected future water demands, including future water demands associated with the Proposed Project, over a 20-year period and under normal, single dry, and multiple dry years. To remain conservative in planning, the City’s 2020 UWMP assumes no reduction in water demand during dry years. However, water conservation and demand reduction methods detailed in the City’s adopted Water Shortage Contingency Plan, included in Appendix F of the City’s

¹¹ West Yost, March 2018. City of Dixon 2016 Water System Master Plan and Strategic Asset Management Plan.

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2020 UWMP, are able to reduce demands by up to and greater than 50 percent under water supply shortage conditions and other emergencies.

CONCLUSION

The water demands for buildout of the proposed Project are included in the projected water demands. Therefore, the City is able to serve the proposed Project in addition to existing and planned developments with the existing and planned future water supplies. As identified above, the proposed Project would not result in insufficient water supplies available to serve the Project from existing entitlements and resources. Therefore, the proposed Project would result in a *less-than-significant* impact to water supplies.

MITIGATION MEASURE(S)

None Required.

CUMULATIVE IMPACTS

The cumulative setting includes all areas covered in the service areas of the City's water supply services.

Impact 3.16-6: The proposed Project, in combination with cumulative development, would not require construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, or have inadequate water supply. (Less than Significant)

The City of Dixon is entirely reliant on groundwater for its water supply. The City serves groundwater supplies within a portion of the current City limits, with groundwater produced from the Solano Groundwater Subbasin. The City is a participant in the Solano Subbasin Groundwater Sustainability Agency (SSGSA) for the purpose of working collaboratively to sustainably manage the groundwater basin as required by the Sustainable Groundwater Management Act of 2014 (SGMA).

Buildout of the City's General Plan would require 1,058 AFY or 0.94 MGD of water supply. For planning purposes, the City assumes a firm existing firm water supply is 4,200 gpm (6.0 MGD or 6,800 ac-ft/yr). The WSMP recommends four additional wells be constructed to meet the buildout demand projections. The total buildout supply capacity with the recommended new wells is projected to be 14,500 gallons per minute (gpm) (20.8 MGD or 23,400 ac-ft/yr) with the firm supply capacity (assuming the largest well out of service) to be 12,000 gpm (17.3 MGD or 19,400 ac-ft/yr).

The City will have enough water because 1) Policy PSF.2.2 requires the City to expand the its water supply system, including wells, pipelines and storage facilities, in order to meet future need as development occurs, particularly in (but not limited to) the Northeast Quadrant and in Southwest Dixon, and 2) Policy PSF.2.3 requires the City to improve the reliability of the City's water system to meet future demand, including through the construction of additional wells and the identification

of potential surface water supply sources. Additionally, the City collects water rates and impact fees to fund the operation, maintenance, and expansion of the water system.¹²

Because the City will be served by groundwater supplies and new groundwater well facilities can be constructed to increase water supply production, and because the City is an active participant in the SSGSA to sustainably manage the groundwater basin, this cumulative impact is considered ***less than significant***.

MITIGATION MEASURE(S)

None Required.

¹² City of Dixon, 2020. General Plan 2040 Environmental Impact Report, Public Review Draft. July 8. p. 3.16-27.

3.16.3 STORM WATER

ENVIRONMENTAL SETTING

Existing City Facilities

Regional stormwater drainage is provided by several agencies, including the City, Dixon Resource Conservation District (DRCD), Reclamation District 2068 (RD2068), and the Maine Prairie Water District. In 2004, these agencies established the Dixon Regional Watershed Joint Powers Agreement (DRWJPA) to cooperatively resolve several long-term, regional drainage issues, including establishing discharge limits from the City into the agricultural DRCD drainage channels and identifying and preliminarily sizing the detention ponds needed to achieve the discharge limits.

The City's storm drain system includes 63 miles of storm drain piping ranging in size from 12 inches to 84 inches in diameter. The storm water system also includes three major detention basins (Ponds A, B, and C). There are two pump stations, one pumps water out of Basin B, and the other pumps water from the Valley Glen development into Basin A. Additionally, there are several smaller basins within the city that serve individual residential, commercial, or industrial development projects. The Project area drains predominantly in the east-southeast direction, away from Interstate 80. The majority of the property is used for irrigated row crops and orchards. Runoff is collected in roadside ditches adjacent to Pedrick Road on the east and Vaughn Road on the south and conveyed via ditches to a depressed area adjacent to the UPRR tracks. In the past, the lands within the NEQSP were omitted from the Dixon Resource Conservation District (DRCD) service area, and therefore no outlet channel has been provided. By inspection of the geographical information available, it appears that flows are stored within the depressed area adjacent to the UPRR and ultimately released into the downstream Tremont 3 system. Flow from the northwest side of Interstate 80 contributes to the NEQSP area. The flows are then conveyed eastward by channel and overlay flow to Pedrick Road. There is an existing 24"x36" Arch CMP culvert crossing Pedrick Road at the south boundary of the existing Campbell Soup facility. The existing conditions are such that water backs up on the project site due to the culvert restriction until such time as the water surface overtops Pedrick Road. The approximate storage on the project site is 29.8 acre-feet during the 100-year, 4-day storm event. A channel conveys the flows from the depressed area to Pedrick Road and culvert crossing to the UPRR where an existing culvert conveys the flows to the Tremont 3 drainage system.

The City owns and operates a stormwater drainage system that incorporates storm drain inlets and piping, several detention ponds and serves eight drainage basins within the Dixon General Plan boundary. The City stormwater drainage collection system is a separate piping system independent from the sanitary sewer collection system. The stormwater system, per State requirements, is intended to collect rainwater runoff only.

New development and redevelopment projects are required to comply with the state's permit requirements regarding stormwater runoff. The city references state permit requirements, City Engineering Standards, and California Stormwater Quality Association (CASQA) Stormwater Best Management Practices Development Handbook for reviewing development and redevelopment projects for compliance. In general, new development projects will be required to provide site-

specific or project-specific storm drainage solutions that are consistent with the overall infrastructure approach of DRCD and the Stormwater Control Ordinance of the City of Dixon.

Flooding

As noted in section 3.10, Hydrology and Water Quality, flooding events as a result of storm drainage can result in damage to structures, injury or loss of human and animal life, exposure of waterborne diseases, and damage to infrastructure. In addition, standing floodwater can destroy agricultural crops, undermine infrastructure and structural foundations, and contaminate groundwater. The Project site is located within Zone X, which is an area determined to be outside the 0.2 percent (500-year) annual chance floodplain. Therefore, the project is located within an area of minimal flood hazard; refer to Figure 3.10-2.

Future Storm Drain Master Plan Improvements

Stormwater system facilities are provided through development and the City's Capital Improvement Program. Improvements required for development are included in development agreements, and are paid for by and installed concurrently with development as needed. There are several possible future Capital Improvement Projects proposed by the City to accommodate planned growth and eliminate system deficiencies within each of the drainage basins.

REGULATORY SETTING

Clean Water Act

The Clean Water Act (CWA) regulates the water quality of all discharges into waters of the United States including wetlands, perennial and intermittent stream channels. Section 401, Title 33, Section 1341 of the CWA sets forth water quality certification requirements for "any applicant applying for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters." Section 404, Title 33, Section 1344 of the CWA in part authorizes the U.S. Army Corps of Engineers to:

- Set requirements and standards pertaining to such discharges: subparagraph (e); Issue permits "for the discharge of dredged or fill material into the navigable waters at specified disposal sites": subparagraph (a);
- Specify the disposal sites for such permits: subparagraph (b);
- Deny or restrict the use of specified disposal sites if "the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies and fishery areas": subparagraph (c);
- Specify type of and conditions for non-prohibited discharges: subparagraph (f);
- Provide for individual State or interstate compact administration of general permit programs: subparagraphs (g), (h), and (j);
- Withdraw approval of such State or interstate permit programs: subparagraph (i);
- Ensure public availability of permits and permit applications: subparagraph (o);
- Exempt certain Federal or State projects from regulation under this Section: subparagraph (r); and,

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- Determine conditions and penalties for violation of permit conditions or limitations: subparagraph (s).
- Section 401 certification is required prior to final issuance of Section 404 permits from the U.S. Army Corps of Engineers.

The SWRCB and RWQCBs enforce State of California statutes that are equivalent to or more stringent than the Federal statutes. RWQCBs are responsible for establishing water quality standards and objectives that protect the beneficial uses of various waters. In the City of Dixon, the RWQCB is responsible for protecting surface and groundwater from both point and non-point sources of pollution. Water quality objectives for all of the water bodies within Dixon were established by the RWQCB and are listed in its Basin Plan.

National Pollutant Discharge Elimination System (NPDES)

National Pollutant Discharge Elimination System (NPDES) permits are required for discharges of pollutants to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, the ocean, dry stream beds, wetlands, and storm sewers that are tributary to any surface water body. NPDES permits are issued under the Federal Clean Water Act, Title IV, Permits and Licenses, Section 402 (33 USC 466 *et seq.*).

The RWQCB issues these permits in lieu of direct issuance by the Environmental Protection Agency, subject to review and approval by the Environmental Protection Agency Regional Administrator. The terms of these NPDES permits implement pertinent provisions of the Federal Clean Water Act and the Act's implementing regulations, including pre-treatment, sludge management, effluent limitations for specific industries, and anti-degradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the Clean Water Act's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the RWQCB are also Waste Discharge Requirements issued under the authority of the CWA.

These NPDES permits regulate discharges from publicly owned treatment works, industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges. NPDES permits are issued for five years or less, and are therefore to be updated regularly. The rapid and dramatic population and urban growth in the Central Valley Region has caused a significant increase in NPDES permit applications for new waste discharges. To expedite the permit issuance process, the SWRCB has adopted several general NPDES permits, each of which regulates numerous discharges of similar types of wastes. The SWRCB has issued general permits for stormwater runoff from industrial and construction sites statewide. Stormwater discharges from industrial and construction activities in the Central Valley Region can be covered under these general permits, which are administered jointly by the SWRCB and RWQCB.

A Phase II Small Municipal Separate Storm Sewer (MS4) General Permit was adopted by the SWRCB on December 8, 2017 and became effective February 1, 2018. The Permit has numerous components and the City is required to implement these components in stages over the five-year period of the Permit. The Cities of Lathrop, Lodi, Manteca, Patterson, Dixon and San Joaquin County (Partners) collaborated to develop a Multi-Agency Post-Construction Standards Manual to meet the MS4

permit requirement. The SWRCB adopted Order No. 2017-0113-DWQ in 2018, which requires that agencies regulate post-construction development through a number of different program elements. In response to this order, Dixon and Solano County collaborated together to develop a “Multi Agency Post-Construction Stormwater Standards Manual.”

Federal Emergency Management Agency

Solano County is a participant in the National Flood Insurance Program (NFIP), a federal program administered by FEMA. Participants in the NFIP must satisfy certain mandated floodplain management criteria. The National Flood Insurance Act of 1968 has adopted as a desired level of protection, an expectation that developments should be protected from floodwater damage of the Intermediate Regional Flood (IRF). The IRF is defined as a flood that has an average frequency of occurrence on the order of once in 100 years, although such a flood may occur in any given year. Communities are occasionally audited by the Department of Water Resources (DWR) to insure the proper implementation of FEMA floodplain management regulations.

Department of Water Resources

DWR’s major responsibilities include preparing and updating the California Water Plan to guide development and management of the State’s water resources, planning, designing, constructing, operating, and maintaining the State Water Resources Development System, protecting and restoring the Sacramento-San Joaquin Delta, regulating dams, providing flood protection, assisting in emergency management to safeguard life and property, educating the public, and serving local water needs by providing technical assistance. In addition, the DWR cooperates with local agencies on water resources investigations; supports watershed and river restoration programs; encourages water conservation; explores conjunctive use of ground and surface water; facilitates voluntary water transfers; and, when needed, operates a State drought water bank.

California Water Code

California’s primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the SWRCB and each of the RWQCBs power to protect water quality, and is the primary vehicle for implementation of California’s responsibilities under the Federal Clean Water Act. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a water quality control plan (Basin Plan) for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

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The Water Code Section 13260 requires all dischargers of waste that may affect water quality in waters of the state to prepare and provide a water quality discharge report to the RWQCB. Section 13260a-c is as follows:

- (a) Each of the following persons shall file with the appropriate regional board a report of the discharge, containing the information that may be required by the regional board:
 - (1) A person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system.
 - (2) A person who is a citizen, domiciliary, or political agency or entity of this state discharging waste, or proposing to discharge waste, outside the boundaries of the state in a manner that could affect the quality of the waters of the state within any region.
 - (3) A person operating, or proposing to construct, an injection well.
- (b) No report of waste discharge need be filed pursuant to subdivision (a) if the requirement is waived pursuant to Section 13269.
- (c) Each person subject to subdivision (a) shall file with the appropriate regional board a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge.

Water Quality Control Plan for the Central Valley Region

The Water Quality Control Plan for the Central Valley Region (Basin Plan) includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and implementation measures. The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term “water quality standards,” as used in the Federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain the water quality standards.

The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region’s ground and surface water. Permits are issued under a number of programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. Water quality problems in the region are listed in the Basin Plan, along with the causes, where they are known. For water bodies with quality below the levels necessary to allow all the beneficial uses of the water to be met, plans for improving water quality are included. The Basin Plan reflects, incorporates, and implements applicable portions of a number of national and statewide water quality plans and policies, including the California Water Code and the Clean Water Act.

Northeast Quadrant Specific Plan

The following public facilities and drainage policies apply to the proposed Project:

6.11.1 GENERAL POLICIES

1. Dedication requirements for all public facilities and easements including detention ponds, drainage channels, and other public facilities and utilities should be set forth in the PD, or equivalent mechanism.
2. All public uses should be designed and landscaped in a manner that complements adjacent non-public uses and should incorporate landscaping, setbacks and siting standards similar to those required in adjacent land uses.
3. All public facilities which are open to the general public should provide pedestrian access to adjacent uses and to the plan area pedestrian system, where feasible.
4. Project proponents shall contribute their fair share to on- and off-site improvements required to develop the specific plan.

6.11.4 DRAINAGE

1. Urban run-off shall be directed to the proposed city-wide drainage conveyances and shall meet standards for peak run-off period flows. However, each application for a PD, or equivalent mechanism pursuant to this Specific Plan will be required to demonstrate the on-site capacity to assure that the post-project runoff is no greater than the pre-project condition unless a comprehensive storm drainage system is available to serve the proposed project. Available means that the system is at least conditionally approved by the City, and has an approved funding mechanism in which the proposed project is a participant or is made a participant as a condition of approval of the PD or another equivalent mechanism.
2. The Dixon Engineering Department shall review all drainage facilities prior to improvement and approval of individual project plans.
3. Overall stormwater volumes generated from the plan area will be mitigated through plan area participation in a regional drainage project, funded in part by methods as determined by the City.

City of Dixon General Plan

The City's General Plan 2040 was adopted in 2021 and is considered the guiding document relative to growth and development of land and services within its municipal boundaries. The General Plan 2040 outlines the City's goals for future development, circulation, conservation of resources, and utilizes policies and actions necessary to achieve these goals.

The goals and objectives of the General Plan relating to stormwater and drainage include:

POLICIES: PUBLIC SERVICES AND FACILITIES ELEMENT

- **PSF-2.7.** Operate, maintain and update the City-owned storm sewer system as needed to serve existing and future development.
- **PSF-2.8.** Coordinate with the Dixon Regional Watershed Joint Powers Agency, the Solano County Water Agency, the Solano Irrigation District and other responsible agencies to address storm drainage and flood control on a sub-regional basis in order to optimize the use of existing and planned conveyance facilities.
- **PSF-2.9.** Require through development agreements that new development provide necessary storm drainage improvements and ensure that upstream stormwater generators fully address stormwater needs on their property.
- **PSF-2.10.** Ensure through the development review process that adequate public utilities and services are available to serve new development and ensure that new development pay its fair share of the costs of constructing new public utilities, providing public services, and upgrading existing facilities as needed to accommodate it.
- **PSF-2.11.** Encourage project designs that minimize drainage concentrations, minimize impervious coverage, utilize pervious paving materials, utilize low impact development (LID) strategies, and utilize Best Management Practices (BMPs) to reduce stormwater runoff.

City of Dixon Municipal Code

The following chapters of the Dixon Municipal Code relate to stormwater and drainage.

CHAPTER 9.04 FLOOD DAMAGE PREVENTION

This chapter addresses regulations and standards in order to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions within the City of Dixon.

CHAPTER 16.04 GRADING CONTROL

This chapter includes standards and regulations designed to establish uniform engineering standards and procedures for grading, excavation and earthwork construction and to avoid the disruption of natural or City-authorized drainage flows caused by the activities of clearing and grubbing, grading, filling and excavation of land.

CHAPTER 16.06 STORM WATER CONTROL

This chapter addresses City requirements for stormwater management and discharge control, including controlling non-stormwater discharges to the stormwater conveyance system, eliminating discharges to the stormwater conveyance system from spills, dumping or disposal of materials other than stormwater, reducing pollutants in urban stormwater discharges to the maximum extent practicable.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project may have a significant impact on the environment associated with Utilities if it would:

1. Require or result in the relocation or construction of new or expanded storm water drainage facilities, the construction of which could cause significant environmental effects.

IMPACTS AND MITIGATION MEASURES

Impact 3.16-7: The proposed Project would not have the potential to require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. (Less than Significant)

The proposed Project would convert approximately 260 acres of existing pervious agricultural land into mostly impervious urban uses. As part of the development, the site would include roadside landscaping, turf in the park and along paseos, and a retention basing to collect stormwater runoff.

The proposed Project would increase impervious surface area, resulting in approximately 58 percent of the project site converting from pervious surfaces to impervious surfaces. Onsite storm drainage infrastructure would be installed to serve the proposed Project. Development of the proposed Project would include construction of a new storm drainage system, including a drainage retention pond and drainage channel. Onsite flows of the proposed Project will be collected and conveyed through a storm drain system to the retention basin. The proposed retention basin has a volume of 255 acre-feet and is located near the south end of the Campus Project site. The retention basin would serve the Project site. If a future city-wide storm drainage solution is pursued, the basin expansion would increase basin capacity to 360 acre feet of storage and would be utilized for the remaining undeveloped NEQSP properties west of Pedrick Road. Based on a preliminary long term infiltration rate of 4 inches per day, the required retention basin storage is approximately 255 acre-feet. The final design of the retention basin will require additional geotechnical investigations to determine the long-term information rate. The retention basin will hold the runoff without a discharge to the DRCD facilities.

The new retention basin will retain the Project flows on-site without an off-site discharge. The existing flows will be routed around the Project site. The loss of existing flood storage on-site will not result in any increase of off-site flows or increase in downstream water surface elevations. This is mainly a result of removing 260 acres for the existing drainage shed area. If the basin is converted to a future detention basin will be constructed to maintain the post development 100-year 4-day flow rates to of the historic Dixon Regional Watershed Joint Powers Agreement peak flow rates of 0.011 cfs/acre. Due to topographical restraints, the detention basin would have a new storm drain pump station to fully drain the basin and to regulate the discharge. There would not be an increase in peak flow and water surface elevations upstream (Interstate 80) or downstream (Union Pacific Railroad) of the Project site.

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All on-site storm drainage runoff will be collected through drain inlets and catch basins along the streets, and conveyed via surface swales and underground trunk lines to the retention pond. The proposed retention basin would be located at the south side of the site, adjacent to Pedrick Road. The proposed detention basin would provide a minimum of 255 acre-feet of storage with a design percolation rate of 4 inches per day. The retention basin is proposed to be approximately 16 feet deep and a minimum of 1-foot of freeboard. Construction of the proposed retention basin would prevent the proposed Project from increasing peak flow and water surface elevations upstream (Interstate 80) and downstream (Union Pacific Railroad) of the Project site.

The storm water drainage retention pond would be constructed to meet the City of Dixon Standards. Discharge from the detention pond would be conveyed through controlled flow pumping facilities to existing City of Dixon and main storm drain laterals.

New development and redevelopment projects are required to comply with the State's permit requirements regarding stormwater runoff. The city references state permit requirements, City Engineering Standards, and California Stormwater Quality Association (CASQA) Stormwater Best Management Practices Development Handbook for reviewing development and redevelopment projects for compliance.

Per the City's Storm Drain Design Standards, storm drains shall be designed to convey flows from a 10-year storm, roadways shall be designed to convey flows from a 100-year storm, retention/detention ponds shall be designed to store flows from a 100-year, 4-day storm assuming 25% of the pond is utilized prior to the storm event, and open channels should be sized to accommodate flows from a 100-year storm with 1 foot of freeboard. The Project's storm drain system would be required to conform to the design criteria, standard plans and specifications and the inspection and testing procedures set forth in the applicable Engineering Standards and Specifications of the City of Dixon (Municipal Code Chapter 16.06). Thus, the proposed storm drainage collection and retention/detention system will be subject to the SWRCB and City of Dixon regulations, including: Dixon Municipal Code; Phase II, NPDES Permit Requirements; NPDES-MS4 Permit Requirements; and LID Guidelines.

Per the City of Dixon Engineering Design Standards, the storm drain system shall be designed to accommodate the 10-year storm event with the hydrologic grade line (HGL) at least 1.0-feet below the gutter flow line elevations. The existing flows will be routed around the project site. The loss of existing flood storage on-site will not result in any increase of off-site flows or increase in downstream water surface elevations. This is mainly a result of removing 260 acres for the existing drainage shed area. If the proposed retention basin is converted to a future detention basin, it will be constructed to maintain the post development 100-year 4-day flow rates to of the historic Dixon Regional Watershed Joint Powers Agreement peak flow rates of 0.011 cfs/acre.

Based on the Drainage Study, there will not be an increase in peak flow and water surface elevations upstream (Interstate 80) or downstream (Union Pacific Railroad) of the project site. Historic flows at the Pedrick Road Culvert will continue at the same rates as the predevelopment condition. No project drainage would be discharged offsite. As also noted within the Drainage Study, a Storm Water Pollution Prevention Plan (SWPPP) will be prepared in conformance with the State Water

Resources Control Board's latest General Construction Permit Guidelines. The SWPPP will be implemented during the construction phases of the project. Therefore, with implementation of the drainage system as analyzed in the Drainage Study prepared for the proposed Project and with the preparation of the SWPPP, drainage impacts would be *less than significant*.

MITIGATION MEASURE(S)

None Required.

CUMULATIVE IMPACTS

The cumulative setting includes all areas covered in the service areas of the City's stormwater and drainage services.

Impact 3.16-8: The proposed Project, in combination with other cumulative development, would not have the potential to require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. (Less than Significant)

Currently the city and regional agencies are working on a master drainage plan for the entire Tremont 3 Watershed. Regional flooding after large events is a known issue in the area. A series of culverts, conveyance systems, and other storm drainage infrastructure have been constructed over time to address the issue. Stormwater drainage, and the need to construct additional storm drainage facilities is a potentially significant cumulative impact.

The proposed Project would retain storm water onsite and would not discharge waters offsite such that a substantial increase in flows occurs. If a regional plan is approved, the proposed retention basin would be converted to a detention with a pump outfall with a discharge rate of 5.14 cubic feet per second (cfs) [0.011 cfs per acre]. If the regional drainage planning effort is approved, the off-site flows will be conveyed around the northeast quadrant via a pass-through storm drain linear basin adjacent to Interstate 80 where it will be collected at the north end of the linear basin in a pipe / ditch system. The flows would be routed via the pipe system to existing UPRR culvert.

The following summarizes the design elements should the proposed retention basin be converted to a regional detention facility in the future:

- Detention storage shall mitigate the increase of the post-development 100-year, 4-Day peak runoff from the project to the DRCD historic discharge rate of 0.011 cfs/acre.
- The detention basin side slopes shall be no steeper than 4:1 in areas subject to inundation.
- The detention basin is approximately 20 feet deep, exceeding the City's preferred maximum depth of 10 feet. Additional depth is required to avoid conflicts with underground utilities and due to the large pipe sizes required to collect the entire undeveloped NEQSP areas west

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of Pedrick Road. Groundwater data from a well located on the eastern side of the site indicated the depth of groundwater ranged from 35 to 82 feet.¹³

If the proposed retention basin is converted to a future detention basin, it would be constructed to maintain the post-development 100-year 4-day flow rates to of the historic Dixon Regional Watershed Joint Powers Agreement peak flow rates of 0.011 cfs/acre. Due to topographical restraints, a future detention basin would have a new storm drain pump station to fully drain the basin and to regulate the discharge.

The proposed Project would manage stormwater flows onsite, without adversely affecting downstream flows. In the event that a regional plan is developed, the proposed retention basin could be converted to a detention basin and be a key part of the overall regional plan for managing stormwater. Therefore, the proposed Project would not have a considerable contribution to regional stormwater flooding, and the cumulative impact would be *less than significant*.

MITIGATION MEASURE(S)

None Required.

¹³ Geotechnical Exploration, Dixon 257, Engeo (February 3, 2022).

3.16.4 SOLID WASTE

ENVIRONMENTAL SETTING

Solid waste disposal services are provided in the Planning Area by Recology, a private company under contract with the City. Recology provides weekly curbside collection of garbage, recycling, and yard waste, and operates the Dixon Recycle Center, located in the city. Household hazardous waste disposal services are provided by Recology at the Household Hazardous Waste Facility in Vacaville.

Solid waste collected in the City of Dixon is transported to the Recology Hay Road (48-AA-0002) Landfill located eight miles south of the city, operated by Recology. In 2022, the City of Dixon sent 21,764 tons of waste to the landfill.¹⁴ The landfill has a permitted capacity of 2,400 tons per day, with an estimated total permitted capacity of 37,000,000 cubic yards. The total remaining estimated capacity as of 2024, was 30,433,000 cubic yards¹⁵. The estimated closure date of the currently permitted facility is January 1, 2077.

The City of Dixon had an annual per population disposal rate of 6.3 pounds per day (PPD) per person and an employee disposal rate of 20.4 pounds per day (PPD) per employee.¹⁶ There is one collection per week of garbage and yard waste for residential areas. Recyclables accepted at the Dixon Recycle Center include newspaper, plastics, glass, aluminum, tin cans, milk jugs, cardboard, office paper, and motor oil. Electronic waste can be recycled every Saturday from 10 a.m. to 2 p.m. The recycling center, located at First Street and C Street, is operated by Recology Dixon Hazardous -waste materials can be recycled at the Recology Center located as 855½ Davis Street, Vacaville, CA, on the first and third Saturdays of each month from 10 a.m. to 2 p.m.

REGULATORY SETTING

California's Integrated Waste Management Act of 1989 (AB 939)

California's Integrated Waste Management Act of 1989 (AB 939) set a requirement for cities and counties to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling and composting. In order to achieve this goal, AB 939 requires that each City and County prepare and submit a Source Reduction and Recycling Element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

¹⁴ CalRecycle, 2022. Jurisdiction Disposal Tonnage Trend. Dixon Jurisdiction. Accessed February 26, 2024.

¹⁵ CalRecycle. SWIS Facility/Site Activity Details. Recology Hay Road (48-AA-0002). Accessed February 26, 2024.

¹⁶ CalRecycle. Countywide, Regionwide, and Statewide Jurisdiction Diversion / Disposal Progress Report. Accessed February 26, 2024.

AB 939 also established requirements for cities and counties to develop and implement plans for the safe management of household hazardous wastes. In order to achieve this goal, AB 939 requires that each city and county prepare and submit a Household Hazardous Waste Element.

75 Percent Solid Waste Diversion

AB 341 requires CalRecycle to issue a report to the Legislature that includes strategies and recommendations that would enable the state to recycle 75 percent of the solid waste generated in the state by January 1, 2020, requires businesses that meet specified thresholds in the bill to arrange for recycling services by July 1, 2012, and also streamlines various regulatory processes.

Construction and Demolition Waste Materials Diversion

Senate Bill 1374 (SB 1374), Construction and Demolition Waste Materials Diversion Requirements, requires that jurisdictions summarize their progress realized in diverting construction and demolition waste from the waste stream in their annual AB 939 reports. SB 1374 required the California Integrated Waste Management Board (CIWMB, which is now CalRecycle) to adopt a model construction and demolition ordinance for voluntary implementation by local jurisdictions.

California Green Building Standards Code (CALGreen)

CALGreen requires the diversion of at least 50 percent of the construction waste generated during most new construction projects (CALGreen Sections 4.408 and 5.408) and some additions and alterations to nonresidential building projects (CALGreen Section 5.713).

California Organic Waste Regulations (SB 1383)

SB 1383 was adopted to reduce organics waste landfill disposal by 75% (from 2014 levels) by 2025. This means diverting more than 20 million tons from landfills. The legislation aims to slow climate change by diverting organic materials from landfills, recovering 20% of edible food and redirecting it to food-insecure Californians.

As of January 2022, Tier 1 Food Generators (including businesses that have more produce, fresh grocery, and shelf-made foods to donate) are required to recover the maximum amount of edible food and maintain recovery records. As of January 2024, Tier 2 Food Generators (including businesses which typically have more prepared foods to donate, which often require careful handling to meet food safety requirements such as time and temperature controls) will be required to do the same.

Northeast Quadrant Specific Plan

The following public facilities and solid waste policies apply to the proposed Project:

6.11.5 SOLID WASTE

1. Recycling collection is permitted in all plan area uses in accordance with the City Zoning Ordinance. Property owners within the plan area may participate in any recycling program adopted on a city-wide basis by the City of Dixon.

2. Waste generated by plan area facilities should be suitable for Class III disposal. Generated wastes other than the Class III category must be approved by appropriate city agencies or representatives.
3. The following measures to reduce the amount of solid wastes attributable to plan development should be considered:
 - Establishment of commercial recycling programs
 - Provisions for an on-site recycling center
 - Development of a transfer station within the specific plan area
5. All allowed light industrial uses and accessory activities shall be conducted wholly within a completely enclosed building with the exception of off-street parking spaces, off-street loading facilities, open storage areas, and employee recreational facilities. Activities shall minimize noise, fumes, smoke, dust, or other environmental pollutants.
6. Incidental open storage of materials, goods, parts and equipment, including company owned or operated trucks and other motor vehicles, is permitted provided that all such activities shall be screened by a solid fence or masonry wall no less than six feet in height and by landscaping and earth berms. No stored materials, goods, parts or equipment should be visible from any adjacent public streets or highways, wetland preserve areas, or adjacent residential properties.
7. No noise may be generated that exceeds 60 dba at the edge of the light industrial parcels. Outside phone and paging systems are prohibited.
8. The use of toxic or hazardous materials requiring the filing of a business plan for emergency response pursuant to Section 25503.5 of the California Health and Safety Code or materials identified in Section 5194, Title 8 of the California Code of Regulations, shall be critically analyzed by the City when considering any use and shall be subject to the approval of a conditional use permit.

City of Dixon General Plan

The City's General Plan 2040 was adopted in 2021 and is considered the guiding document relative to growth and development of land and services within its municipal boundaries. The General Plan 2040 outlines the City's goals for future development, circulation, conservation of resources, and utilizes policies and actions necessary to achieve these goals.

The goals and objectives of the General Plan relevant to solid waste include:

POLICIES: PUBLIC SERVICES AND FACILITIES ELEMENT

- PSF-2.10. Ensure through the development review process that adequate public utilities and services are available to serve new development and ensure that new development pay its fair share of the costs of constructing new public utilities, providing public services, and upgrading existing facilities as needed to accommodate it.

City of Dixon Municipal Code, Chapter 9.06

Chapter 9.06 of the Municipal Code regulates the collection, transportation, and disposal of refuse and solid waste of all kinds, and the collection, transfer and recovery of recyclable and organic waste material in order to promote community welfare, convenience, health, and safety.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on the environment associated with Utilities if it will:

1. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; and/or.
2. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

IMPACTS AND MITIGATION MEASURES

Impact 3.16-9: The landfills that would serve the proposed Project have sufficient permitted capacity to accommodate the Project’s solid waste disposal needs, and the proposed Project will comply with federal, State, and local statutes and regulations related to solid waste. (Less than Significant)

The City of Dixon contracts with Recology, a private company, a private company, for solid waste collection and disposal. Based on the waste generation factors provided by CalRecycle, the proposed Project is expected to generate approximately 23,907.9 pounds per day of solid waste upon full buildout, which is equivalent to 10.8 tons per day; refer to **Table 3.16-9**.

TABLE 3.16-9: ESTIMATED SOLID WASTE GENERATION

LAND USE	GENERATION	PROJECT	ESTIMATED SOLID WASTE (LBS/DAY)
Single-Family	10 lbs/unit/day	816 units	8,160
Multi-Family	8.6 lbs/unit/day	225 units	1,935
Commercial/Office	6 lbs/1,000 sf/day	108,464.4 sq.ft.	650.8
Industrial/Mixed Use	6 lbs/1,000 sf/day	2,193,681.6 sq.ft.	13,162.1
Total			23,907.9

SOURCE: CALRECYCLE, ESTIMATED SOLID WASTE GENERATION RATES, 2023

Currently, the Recology Hay Road Landfill (48-AA-0002) has a permitted capacity of 2,400 tons per day, with an estimated total permitted capacity of 37,000,000 cubic yards. The total estimated

remaining capacity used, as of 2024, was 30,433,000 cubic yards.¹⁷ The estimated closure date of the currently permitted facility is January 1st, 2077.

The proposed Project would be required to comply with applicable State and local requirements including those pertaining to solid waste, construction waste diversion, and recycling. Furthermore, the addition of the volume of solid waste associated with the proposed Project, approximately 10.8 tons per day, would not cause an exceedance of the landfill's remaining capacity. Therefore, the proposed Project would not generate solid waste in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, or exceed any State or local standards associated with solid waste. This is a *less than significant* impact.

MITIGATION MEASURE(S)

None Required.

CUMULATIVE IMPACTS

The cumulative setting includes all areas covered in the service areas of the City's solid waste collection and disposal services.

Impact 3.16-10: The landfills that would serve the proposed Project, in combination with other cumulative development, have sufficient permitted capacity to accommodate the Project's and cumulative developments' solid waste disposal needs, and will comply with federal, State, and local statutes and regulations related to solid waste. (Less than Significant)

Solid waste generated in the City of Dixon is currently disposed at the Recology Hay Road Landfill. Currently, the Recology Hay Road Landfill (48-AA-0002) has a permitted capacity of 2,400 tons per day, with an estimated total permitted capacity of 37,000,000 cubic yards. The total estimated remaining capacity used, as of 2024, was 30,433,000 cubic yards.¹⁸ The estimated closure date of the currently permitted facility is January 1, 2077.

Cumulative development areas served by the Recology Hay Road Landfill could continue to use the landfill's capacity for more than 50 more years. As a result, the landfill could accommodate future development, and the cumulative impact would be *less than significant*.

MITIGATION MEASURE(S)

None Required.

¹⁷ CalRecycle. SWIS Facility/Site Activity Details. Recology Hay Road (48-AA-0002). Accessed February 26, 2024.

¹⁸ CalRecycle. SWIS Facility/Site Activity Details. Recology Hay Road (48-AA-0002). Accessed February 26, 2024.

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) to evaluate a project's effects in relationship to broader changes occurring, or that are foreseeable to occur, in the surrounding environment. Accordingly, this chapter presents a discussion of CEQA-mandated analysis for significant irreversible effects and significant and unavoidable impacts associated with the proposed Project.

4.1 INTRODUCTION

CEQA Guidelines Section 15126 requires that all phases of a project—planning, acquisition, development, and operation—be considered when evaluating the project's impact on the environment. Further, CEQA Guidelines Section 15126.2(a) requires that the evaluation of significant impacts consider direct and reasonably foreseeable indirect effects of the proposed project over the short term and long term. Section 15126 of the CEQA Guidelines also requires an EIR to identify all of the following:

- Significant environmental effects of the proposed project.
- Potentially feasible mitigation measures proposed to avoid or substantially lessen significant effects.
- Significant environmental effects that cannot be avoided if the proposed project is implemented.
- Significant irreversible environmental changes that would result from implementation of the proposed project.
- Growth-inducing impacts of the proposed project.
- Alternatives to the proposed project.¹

The Executive Summary and Chapter 3, Environmental Impact Analysis, of this Draft EIR provide a comprehensive presentation of the proposed Project's environmental effects, potentially feasible mitigation measures, and conclusions regarding the level of significance of each impact both before and after mitigation. Chapter 4, Project Alternatives, presents a comparative analysis of alternatives to the proposed Project. The other CEQA-required analyses described above are presented below.

4.2 SIGNIFICANT UNAVOIDABLE IMPACTS

LEGAL CONSIDERATIONS

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. The environmental effects of the proposed Project on various aspects of the environment are discussed in detail in Chapter 3, Environmental Impact Analysis. Project-specific and cumulative impacts that cannot be avoided if the project is approved as proposed are identified below.

¹ CEQA Guidelines Sections 15126.2(a), 15126.2(c), 15126.2(d), 15126.2(e), 15126.4, and 15126.6

4.0 OTHER CEQA-REQUIRED TOPICS

Impact 3.2-1: Implementation of the proposed Project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

Impact 3.2-3: Implementation of the proposed Project, in combination with other cumulative development, would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use.

Impact 3.3-1: Project operations would cause a violation of an air quality standard or contribute substantially to an existing or projected air quality violation.

Impact 3.3-2: Project construction would cause a violation of an air quality standard or contribute substantially to an existing or projected air quality violation.

Impact 3.3-4: The proposed Project would expose the public to toxic air contaminants.

Impact 3.3-6: Implementation of the proposed Project, in combination with other cumulative development, would cause a violation of any air quality standard or contribute substantially to an existing or projected air quality violation.

Impact 3.3-8: Implementation of the proposed Project, in combination with other cumulative development, would expose the public to toxic air contaminants.

Impact 3.15-2: Implementation of the proposed Project would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) regarding Vehicle Miles Traveled (VMT).

Impact 3.15-5: Implementation of the proposed Project, in combination with other cumulative development, would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) regarding Vehicle Miles Traveled (VMT).

4.3 SIGNIFICANT IRREVERSIBLE EFFECTS

LEGAL CONSIDERATIONS

Under CEQA, an EIR must analyze the extent to which a project's primary and secondary effects would generally commit future generations to the allocation of nonrenewable resources and to irreversible environmental damage (CEQA Guidelines Sections 15126.2(d) and 15127). Section 15126.2(d) states:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project.

CEQA Section 15126.2(c) and Public Resources Code Sections 21100(b)(2) and 21100.1(a), require that the EIR include a discussion of significant irreversible environmental changes which would be involved in the proposed action, should it be implemented. Irreversible environmental effects are described as:

- The project would involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of a project would generally commit future generations to similar uses (e.g., a highway provides access to previously remote area);
- The project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The phasing of the proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

Determining whether the proposed Project would result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed such that there would be little possibility of restoring them. Irrecoverable commitments of resources should be evaluated to assure that such current consumption is justified.

Long-Term Commitment of Resources

The proposed Project would consist of a phased, mixed-use development that includes an approximately 48-acre Dixon Opportunity Center (DOC), approximately 144 acres of residential uses, and approximately 2.5 acres of commercial uses, which are anticipated in the Campus Mixed Use General Plan designation of the City's 2040 General Plan.

Construction would include use of building materials such as petroleum-based products and metals that cannot reasonably be recreated. Construction also would involve significant consumption of energy, usually petroleum-based fuels that deplete supplies of nonrenewable resources. Construction of structures and infrastructure would consume energy and water. Construction debris recycling practices would be expected to allow for recovery and reuse of building materials such as concrete, lumber, and steel, and would limit disposal of these materials, some of which are non-renewable. Additionally, construction equipment would have to meet Yolo-Solano Air Quality Management District (YSAQMD) standards as described in Section 3.2, Air Quality. Section 3.6, Energy, addresses appropriate consumption of energy for development construction.

Once construction is complete, which is expected to be after eight years, land uses associated with buildout of the proposed Project would use some nonrenewable fuels to heat and light structures and would consume water. New land uses would be required to be built and adhere to the latest adopted edition of the California Green Building Standards Code, which would reduce energy demand, water consumption, and wastewater and solid waste generation that would collectively reduce demand for resources. This would lessen emissions and generation of pollution and effluent, and so the severity of corresponding environmental effects.

As discussed in Section 3.4, Biological Resources, all impacts would be less than significant or less than significant with implementation of mitigation measures. As a result, the proposed Project will

minimize the potential for impacts to the nonrenewable resources on the project site, including biological resources and water resources, to the greatest extent feasible. More detailed and focused discussions of potential impacts to these nonrenewable resources are contained throughout this Draft EIR.

Nonrenewable agricultural resources such as agricultural land, farmland, and agricultural soils, would be converted during the construction and operation of the Project. The City's General Plan includes a variety of policies that seek to conserve and protect agricultural resources. These include policies that encourage the development of vacant lands within City boundaries prior to conversion of agricultural lands and ensure that urban development near existing agricultural lands will not unnecessarily constrain agricultural practices or adversely affect the economic viability of nearby agricultural operations. The conversion of agricultural land to urban uses would result in a long-term commitment of that resource, which is a slowly renewable resource.

Commitment of the Project Site for Future Generations

Development allowed under the proposed Project would dedicate the project site to urbanized land uses, thereby precluding other uses for the life span of the proposed Project, generally estimated to be for the foreseeable future. The most notable impacts would be increased generation of pollutants from vehicle travel and stationary operations and conversion of the land from agriculture to urban, and the short-term commitment of nonrenewable and/or slowly renewable natural and energy resources, such as water resources, during construction activities. Operations associated with future uses would also consume natural gas and electrical energy. The unavoidable consequences of the proposed Project are described in the appropriate sections of Chapter 3, Environmental Setting, Impacts, and Mitigation Measures.

Irreversible Environmental Damage

Development of the proposed Project would result in irretrievable commitments by introducing development onto the site which is presently undeveloped. The conversion of agricultural lands to urban uses would result in an irretrievable loss of agricultural land, wildlife habitat, and open space.

A variety of resources, including land, energy, water, construction materials, and human resources would be irretrievably committed for development and infrastructure installation associated with development and operation of the proposed Project. Buildout of the Project would require the commitment of a variety of other non-renewable or slowly renewable natural resources such as lumber and other forest products, sand and gravel, asphalt, petrochemicals, and metals.

Additionally, a variety of resources would be committed to the ongoing operation and life of the Project. The introduction of new residential and non-residential uses to the project site will result in an increase energy demand associated with building operations, vehicle travel, equipment operation, and other activities. Fossil fuels are the principal source of energy and the Project will increase consumption of available supplies, including gasoline and diesel fuel. These energy resource demands relate to initial construction, operation, maintenance and the transport of people and goods to and from the project site that would occur with development of the proposed Project.

Development will also physically change the environment in terms of aesthetics, air emissions, noise, traffic, open space, and natural resources. These physical changes are irreversible after development occurs.

Implementation of the proposed Project may have the potential to cause significant environmental accidents through hazardous material releases into the environment during construction activities, or through operation of new commercial or mixed-use land uses. However, compliance with State law and implementation of a Stormwater Pollution Prevention Plan (SWPPP) during construction activities would ensure that future development would not create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving release of hazardous materials (see Section 3.8, Hazards and Hazardous Materials).

Over the past decade, the understanding of global climate change and the role that communities can play in addressing it has grown tremendously. There is a scientific consensus that recent increases in global temperatures are associated with corresponding increases of greenhouse gases (GHGs). This temperature increase is beginning to affect regional climates and is expected to result in impacts on the Central Valley region and the world. Climate change has profound implications for the availability of the natural resources on which economic prosperity and human development depend.

As discussed in detail in Section 3.8, Greenhouse Gas Emissions, GHG emissions are known to have long-term effects on atmospheric conditions that affect the global climate, with resultant changes in sea level and hydrologic conditions in rivers, heat island effects, and a range of other conditions. These changes are not considered irreversible, but they could last for generations. As described further in Section 3.8, the proposed Project could result in short-term increases in GHG emissions. However, compliance with the City's General Plan policies and programs, adherence to the development standards in the Dixon Municipal Code, as well as consistency with California Building Standards and the latest version of the CALGreen Code would ensure that potential new development associated with implementation of the Project would not directly or indirectly generate GHG emissions that may have a significant impact on the environment.

Unjustified Consumption of Resources

Resources that would be permanently and continually consumed by implementation of the proposed Project include water, electricity, natural gas, and fossil fuels; however, the amount and rate of consumption of these resources would not result in the unnecessary, inefficient, or wasteful use of resources (see Section 3.6, Energy, and Section 3.16, Utilities and Service Systems). The Project's operational activities would comply with all applicable building codes, including the most current version of the Title 24 Energy Efficiency Standards as well as planning policies and standard conservation features. Such compliance would ensure that natural resources are conserved to the maximum extent required under existing regulations.

It is possible that, over time, new technologies or systems will emerge, or will become more cost-effective or user-friendly, to further reduce reliance on nonrenewable natural resources. Nonetheless, construction activities for the proposed Project would result in the irretrievable

4.0 OTHER CEQA-REQUIRED TOPICS

commitment of nonrenewable energy resources, primarily in the form of fossil fuels (including fuel oil), natural gas, and gasoline for automobiles and construction equipment.

MANDATORY FINDINGS OF SIGNIFICANCE

CEQA Guidelines Section 15065 states that a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has potential environmental effects that are individually limited, but cumulatively considerable. As defined in CEQA Guidelines Section 15065(a)(3), cumulatively considerable means “that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.” Cumulative impacts are addressed in each technical section of this EIR.

CEQA Guidelines Section 15065(a)(1) states that a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to (1) substantially reduce the habitat of a fish or wildlife species; (2) cause a fish or wildlife population to drop below self-sustaining levels; or (3) substantially reduce the number or restrict the range of an endangered, rare, or threatened species. These impacts are discussed below.

Additionally, as required by CEQA Guidelines Section 15065(a)(4), a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. These impacts are discussed below.

Substantial Adverse Effects on Fish, Wildlife, and Plant Species

Section 3.4 (Biological Resources) of this Draft EIR fully addresses any impacts that might relate to the reduction of the fish or wildlife habitat, the reduction of fish or wildlife populations, and the reduction or restriction of the range of special-status species as a result of Project development. As described throughout the analysis in this Draft EIR, the proposed Project would not result in any significant impacts that would substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal to the environment. As described in greater detail in Section 3.4 (Biological Resources), any potentially significant impacts related to plant and animal species would be reduced to a less-than-significant level through implementation of goals, policies and implementation measures provided in the City’s General Plan as well as through adherence to state and federal regulations. Therefore, this is considered a less-than-significant impact.

4.4 GROWTH-INDUCING IMPACTS

There are two types of growth-inducing impacts: direct and indirect. To assess potential for growth-inducing impacts, General Plan Elements that may encourage and facilitate activities that individually or cumulatively may affect the environment must be evaluated (CEQA Guidelines

Section 15126.2(e)). CEQA Guidelines, as interpreted by the City, state that a significant growth-inducing impact may result if implementation of the proposed Project would:

- Induce substantial population growth in an area (for example, by proposing new homes and commercial or industrial businesses beyond the land use density/intensity envisioned in the general plan);
- Substantially alter the planned location, distribution, density, or growth rate of the population of an area; or
- Include extensions of roads or other infrastructure not assumed in the general plan or adopted capital improvements project list, when such infrastructure exceeds the needs of the project and could accommodate future developments.

Direct growth-inducing impacts occur when development imposes new burdens on a community by directly inducing population growth, or by leading to construction of additional developments in the same area. Secondary impacts can include the removal of physical obstacles to population growth (such as a new road into an undeveloped area or a wastewater treatment plant with excess capacity that could allow additional development in the service area). Construction of these types of infrastructure cannot be considered isolated from the development they facilitate and serve. Physically removing obstacles to growth, or indirectly inducing growth may provide a catalyst for future unrelated development in an area, such as a new residential community that requires additional commercial uses to support residents.

Implementing the proposed Project would continue the planned for growth in the City in a manner consistent with the designated land use of the City General Plan. The California Department of Finance estimated the total population of the City of Dixon to be 19,018 as of 2023.² The City projects a population of 28,893 by 2040 based on buildout of the General Plan. The proposed Project would result in the construction of 1,041 dwelling units. Using an average household size of 2.87³ the proposed Project would result in the addition of approximately 2,988 residents to the City, or 10.3 percent of the total projected 2040 population. Therefore, direct population growth as a result of the proposed Project would occur, but was anticipated as part of the city's overall growth pattern and planning in the 2040 General Plan. The potential environmental impacts resulting from this direct population growth is analyzed in Sections 3.1 through 3.16 of this EIR.

The proposed Project would also not significantly or adversely affect the permanent jobs/housing balance. Implementation of the proposed Project would allow for creation of approximately 687,000 square feet of nonresidential uses, such as service commercial and the Dixon Opportunity Center. Development associated with the Project would provide for employment opportunities, particularly

² California Department of Finance E-1 Estimates (2023), E-5 Estimates (2020), and E-8 Estimates (2000, 2010). May 2023.

³ State of California Department of Finance. 2023. E-4 Population Estimates for Cities, Counties, and the State, 2021-2023, with 2020 Benchmark. May 2023.

4.0 OTHER CEQA-REQUIRED TOPICS

during construction phases. Therefore, implementing the proposed Project would help the city achieve a more even job/housing balance by providing much-needed housing.

Implementing the proposed Project would not require extensions of electrical, natural gas, or water utility infrastructure beyond the needs of the proposed Project, but would require connections to existing infrastructure on and adjacent to the project site. A small sewer connection is needed at the southwest corner of the project site along Vaughn Road to allow for a future southern sewer connection through the NEQSP area. The proposed Project would not extend urban infrastructure other than to future projects anticipated under the City's General Plan, such as the planned NEQSP area, and thus would not induce growth in other areas outside the City limits. Growth inducement to the undeveloped agricultural land to the east of the Project site, across Pedrick Road, would not occur as that land is designated as Agricultural in the County's General Plan. The proposed Project would not oversize or extend infrastructure to that area, and would not induce growth beyond that anticipated under the City's General Plan.

Furthermore, the proposed Project would be compatible with other planned growth within the NEQSP area as future development would be guided by the Specific Plan, as would the proposed Project. Areas outside of the NEQSP area would not be pressured to redevelop with new or different land uses as there is planned growth capacity within the NEQSP area and anticipated under the General Plan. Although there are a few existing residential units immediately south of the proposed Project site, neither the proposed Project nor further development within the NEQSP area would require nearby residents to relocate as residential uses are compatible with the uses anticipated in the NEQSP. Therefore, the proposed Project would not remove a barrier to growth nor create an indirect population increase.

Infrastructure and services would be expanded as necessary to serve City growth, without significant excess capacity, and thus would not encourage additional growth beyond that already planned for in the proposed Project. As a result, the proposed Project would create minimal to no indirect growth, and the planned buildout would be consistent with City projections.

Since the proposed Project would not result in indirect growth, negatively alter the existing jobs/housing balance, or be inconsistent with the City General Plan, growth-inducing impacts would be less than significant.

Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15126.6, this environmental impact report (EIR) must describe a range of reasonable alternatives to the proposed Project that might feasibly accomplish most of the basic objectives of the proposed Project and avoid or substantially lessen one or more of the significant effects of the project. The feasibility of an alternative is determined by the lead agency based on a variety of factors including but not limited to site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and site accessibility and control (CEQA Guidelines Section 15126.6(f)(1)).

The chapter discloses the comparative effects of each of the alternatives relative to The Campus Project, and evaluates the relationship of the alternatives to the objectives of the Project. As required under Section 15126.6(e) of the CEQA Guidelines, an environmentally superior alternative for the proposed Project is identified at the end of this chapter.

5.1 FACTORS IN THE SELECTION OF ALTERNATIVES

PROJECT OBJECTIVES

CEQA Guidelines Section 15124(b) requires that an EIR include a statement of the objectives from an applicant intended to be achieved by the project. The objectives describe the purpose of the Project and are intended to assist the lead agency in developing a reasonable range of alternatives for consideration in the EIR, and to assist the decision makers in assessing the feasibility of mitigation measures and alternatives. The objectives of The Campus Project from the applicant are as follows:

1. Create a project consistent with the Property's Campus Mixed Use General Plan designation.
2. Expand and enhance the City's employment base and reduce the City's current jobs/housing imbalance thereby contributing to the City's economic development goals.
3. Create a campus neighborhood where residential units support the employment-based uses.
4. Create a neighborhood providing residents the opportunity to walk or bike to work in the neighborhood's employment area.
5. Provide a mix of housing and densities, including apartments, small lot and larger lot single family homes.
6. Create home ownership opportunities for the missing middle.
7. Create rental residential opportunities adjacent to employment uses.
8. Create an employment base area that will be more attractive to employers due to the proximity of complementary residential uses.
9. Provide a residential unit count necessary to pay the cost of extending needed infrastructure to the employment base portion of the Project and the remaining undeveloped properties in the Northeast Quadrant Specific Plan.
10. Provide stormwater management facilities that address the impacts of the project, but also opportunities for more regional stormwater management facilities.

5.2 SIGNIFICANT EFFECTS OF THE PROPOSED PROJECT

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. The environmental effects of the proposed Project on various aspects of the environment are discussed in detail in Chapter 3, Environmental Impacts, Setting, and Mitigation Measures. The project-specific and cumulative impacts that cannot be avoided if the proposed Project is approved as proposed are listed below.

Impact 3.2-1: Implementation of the proposed Project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

Impact 3.2-3: Implementation of the proposed Project, in combination with other cumulative development, would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use.

Impact 3.3-1: Project operations would cause a violation of an air quality standard or contribute substantially to an existing or projected air quality violation.

Impact 3.3-2: Project construction would cause a violation of an air quality standard or contribute substantially to an existing or projected air quality violation.

Impact 3.3-4: The proposed Project would expose the public to toxic air contaminants.

Impact 3.3-6: Implementation of the proposed Project, in combination with other cumulative development, would cause a violation of any air quality standard or contribute substantially to an existing or projected air quality violation.

Impact 3.3-8: Implementation of the proposed Project, in combination with other cumulative development, would expose the public to toxic air contaminants.

Impact 3.15-2: Implementation of the proposed Project would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) regarding Vehicle Miles Traveled (VMT).

Impact 3.15-5: Implementation of the proposed Project, in combination with other cumulative development, would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) regarding Vehicle Miles Traveled (VMT).

5.3 ALTERNATIVES NOT SELECTED FOR FURTHER ANALYSIS

A Notice of Preparation (NOP) was circulated to the public to solicit recommendations for a reasonable range of alternatives to the proposed Project. Additionally, a public scoping meeting was held during the public review period to solicit recommendations for a reasonable range of alternatives to the proposed Project. No specific alternatives were submitted by commenting agencies or general public during the NOP public review process.

The City of Dixon considered alternative locations early in the public scoping process. The City's key considerations in identifying an alternative location were as follows:

- Is there an alternative location where significant effects of the Project would be avoided or substantially lessened?
- Is there a site available within the City's Sphere of Influence with the appropriate size and characteristics such that it would meet the basic Project objectives?

The City's consideration of alternative locations for the Project included a review of previous City land use planning and environmental documents, including the General Plan. The search included a review of land in Dixon that is located within the Sphere of Influence, suitable for development, available for purchase by the Project Applicant, of sufficient size to accommodate the Project, and not already approved for or pending development. It was found that there are numerous approved projects and proposed Projects that are currently under review in Dixon. These approved and proposed Projects are not available for acquisition by the Project applicant and are not considered feasible alternative sites. The City has found that there are no feasible alternative locations that exist within the City's Sphere of Influence with the appropriate size and characteristics that would meet the basic Project objectives and avoid or substantially lessen a significant effect. For these reasons, the City determined that there are no feasible alternative locations for the Project.

5.4 ALTERNATIVES CONSIDERED IN THIS EIR

This section describes the range of alternatives to the proposed Project that are analyzed in this Draft EIR and examines how specific environmental impacts would differ in severity compared to those associated with the proposed Project. For the most part, significant impacts of the alternatives can be mitigated to less-than-significant levels through adoption of the mitigation measures identified in Chapter 3, which contains the environmental analysis of the proposed Project. To varying degrees, the following alternatives would also avoid and/or lessen impacts, including some or all of the significant and unavoidable impacts, of the proposed Project.

CEQA requires consideration of a "no project" alternative, which addresses the impacts of not moving forward with the proposed Project. The No Project Alternative can take many forms, including doing nothing, depending on what may likely occur if a project is not developed. In the case of the proposed Project, two No Project Alternatives are evaluated.

The following alternatives are considered in this section:

- Alternative 1 – No Project (No Build)
- Alternative 2 – No Project/Existing General Plan/Industrial Uses Only
- Alternative 3 – Increased Non-Residential/Decreased Residential

Table 5-1 presents an overview of the proposed alternatives, which are analyzed below.

5.0 ALTERNATIVES TO THE PROPOSED PROJECT

TABLE 5-1: COMPARISON OF PROJECT ALTERNATIVES

	PROPOSED PROJECT	ALTERNATIVE 1 NO PROJECT/ NO BUILD	ALTERNATIVE 2 NO PROJECT/ EXISTING GENERAL PLAN/ INDUSTRIAL USES ONLY	ALTERNATIVE 3 INCREASED NON- RESIDENTIAL/ DECREASED RESIDENTIAL
ACRES				
<i>Residential</i>	144.27	0	0	72.14
<i>Commercial</i>	2.49	0	0	6
<i>Industrial</i>	47.87	0	209	118.81
<i>Parks and Open Space</i>	13.42	0	0	9
<i>Public Uses</i>	27.9	0	32.76	30.76
<i>ROW</i>	23.66	0	17.85	22.9
Acreage Total	259.61	0	259.61	259.61
DWELLING UNITS				
<i>Low Density Residential</i>	538	0	0	268
<i>Medium Density Residential</i>	278	0	0	143
<i>High Density Residential</i>	225	0	0	113
Dwelling Units Total	1,041	0	0	524

SOURCE: CITY OF DIXON 2024; DE NOVO PLANNING GROUP 2024.

ALTERNATIVE 1 – NO PROJECT (NO BUILD)

CEQA Guidelines Section 15126.6(e) requires an EIR to evaluate a “no project” alternative, which is defined as what would be reasonably expected to occur in the foreseeable future if the project were not approved. Under Alternative 1, no urban uses would develop on the Project site. The entire Project site would remain vacant and agricultural operations would continue. There would be no progress toward implementation of the NEQSP or the General Plan. No roadway improvements along Pedrick Road and Professional Way, or other roadway extensions, would be constructed. A new retention basin at the southern end of the Project site would not be constructed, and stormwater runoff, and the management thereof, would continue as-is.

The NEQSP would not be amended. The Project site would not be rezoned to CAMU from PAO, ML, and CN to be consistent with the City’s General Plan and would not change the existing Zoning Map. Although the Project site is currently zoned for industrial and mixed-use development, under Alternative 1, the Project site would remain undeveloped and continue operating as farmland for the near term.

Comparative Analysis of Environmental Effects

IMPACTS IDENTIFIED AS BEING THE SAME AS OR SIMILAR TO THOSE OF THE PROPOSED PROJECT

The No Project (No Build) Alternative would result in no changes to land use and would have no development. The No Project (No Build) Alternative would not induce substantial population increase that has not already been accounted for as a part of the approved General Plan, or

analyzed in detail in this EIR. Because the No Project (No Build) Alternative would not add any additional population, would not displace substantial numbers of people, and would not change land use patterns, impacts related to land use and population would be the same or similar to the proposed Project.

IMPACTS IDENTIFIED AS BEING LESS SEVERE THAN THOSE OF THE PROPOSED PROJECT

The development of the Project site in the existing vacant setting into the proposed Project would physically alter the existing scenic vistas and visual character of the area. Under the No Project (No Build) alternative, no development would occur, and the existing scenic vistas and visual character of the area would remain unchanged. The natural landscape, including scenic vistas and visual character, would be preserved without any alterations. Therefore, the No Project (No Build) Alternative is expected to have a lesser impact on aesthetic and visual impacts.

The conversion of vacant farmland into the proposed Project would result in the loss of important agricultural land. Under the No Project (No Build) Alternative, the farmland would remain undeveloped, continuing for the time being its agricultural use. Therefore, the No Project (No Build) Alternative is expected to have a lesser near-term impact on agriculture resources than the proposed Project.

Under the No Project (No Build) Alternative, there will be no additional construction or development activities, resulting in minimal changes to air quality compared to existing conditions. In contrast, the proposed Project involves construction, increased vehicular traffic, and operational activities, which could lead to localized air pollution from emissions. Therefore, the No Project (No Build) Alternative is expected to have a lesser impact on air quality.

Under the No Project (No Build) Alternative, the proposed Project would not be constructed, no existing biological resources or habitat would be removed, and no ground disturbing activities would occur. As such, these impacts would be reduced when compared to the proposed Project.

The No Project (No Build) Alternative would not involve new construction that could be subject to seismic, geologic or soils hazards; thus, this alternative would have no potential for impact.

Under the No Project (No Build) Alternative, no new land uses would be introduced to the Project site, and the potential for hazardous material release on the Project site would be eliminated. As such, this impact would be reduced when compared to the proposed Project.

Under the No Project (No Build) Alternative, potential water quality impacts from construction and operation of the proposed Project would be eliminated. While groundwater recharge is not considered a significant impact under the proposed Project, under this alternative, the land will be kept in its present state with the majority of the Project site being used for agricultural purposes. The infiltration rate of the soils on the Project site is primarily considered high. The Project site is not a major source of groundwater recharge due to the lack of precipitation and the absence of a major water source. The No Project (No Build) Alternative will have a greater chance of groundwater recharge because it does not introduce large areas of impervious surfaces as would the proposed Project. As such, potential impacts related to hydrology and water quality

5.0 ALTERNATIVES TO THE PROPOSED PROJECT

would be reduced under the No Project (No Build) Alternative when compared to the proposed Project.

Under the No Project (No Build) Alternative, the Project site would remain undeveloped and there would be no increased demand for public infrastructure and utility systems, including water supply systems, energy, and public services or recreation. The recreational amenities within the proposed Project, however, would not be developed for community use. The No Project (No Build) Alternative would have a reduced impact when compared to the proposed Project because demand on public services would be reduced compared to the proposed Project.

With no new development, the No Project (No Build) Alternative would maintain existing traffic patterns and transportation infrastructure, and not add any traffic volumes to the transportation network. In contrast, the proposed Project would lead to increased vehicular traffic, congestion, and demand for transportation services. Thus, the No Project (No Build) Alternative would have fewer impacts on traffic and transportation systems.

IMPACTS IDENTIFIED AS BEING MORE SEVERE THAN THOSE OF THE PROPOSED PROJECT

There are no impacts from the implementation of the No Project (No Build) Alternative that would be greater than the proposed Project.

Relationship to Significant and Unavoidable Impacts

Currently, the majority of the Project site is used for agricultural purposes. The No Project (No Build) Alternative would result in no development on the Project site. As such, this alternative would have no impact on agricultural land, no potential for conflicts with existing agricultural resources, and no potential for conflict with regulations and plans intended to protect those resources. The No Project (No Build) Alternative would eliminate the significant and unavoidable impact of converting Important Farmland. As such, this impact would be reduced when compared to the proposed Project.

Under the No Project (No Build) Alternative, the Project site would not be developed, and there would be no net change in emissions and no potential for a conflict with any adopted plans or policies related to air quality. Implementation of the No Project (No Build) Alternative would eliminate the significant and unavoidable air quality and emissions impacts of the proposed Project. As such, this impact would be reduced when compared to the proposed Project.

The No Project (No Build) Alternative would not introduce additional vehicle, pedestrian, or bicycle travel on the area roadways. The No Project (No Build) Alternative would have a reduced traffic impact when compared to the proposed Project. Therefore, implementation of the No Project (No Build) Alternative would eliminate the significant and unavoidable VMT impacts associated with the proposed Project.

Relationship to Project Objectives

Development under the No Project (No Build) Alternative would not achieve the Project objectives as the alternative would not implement a project consistent with the site's Campus Mixed Use General Plan designation; expand and enhance the City's employment base and reduce the City's

current jobs/housing imbalance thereby contributing to City economic development goals; create a campus neighborhood where residential units support the employment-based uses; create a neighborhood providing residents the opportunity to walk or bike to work in the neighborhood’s employment area; provide a mix of housing and densities, including apartments, small lot and larger lot single family homes; create home ownership opportunities for the missing middle; create rental residential opportunities adjacent to employment uses; create an employment base area that will be more attractive to employers due to the proximity of complementary residential uses; provide a residential unit count necessary to pay the cost of extending needed infrastructure to the employment base portion of the Project and the remaining undeveloped properties in the Northeast Quadrant Specific Plan; and provide stormwater management facilities that address the impacts of the Project, but also opportunities for more regional stormwater management facilities.

ALTERNATIVE 2 – NO PROJECT/EXISTING GENERAL PLAN/INDUSTRIAL USES ONLY

It is common under CEQA to evaluate a no project/existing designations or existing zoning alternative to a proposed project. Under present conditions, the Project site is currently zoned as Professional & Admin Office (PAO-PUD), Neighborhood Commercial (CN-PUD), and Light Industrial (ML-PUD). However, State law requires vertical consistency between a property’s General Plan designation and its zoning. The existing General Plan designation of Campus Mixed Use (CAMU) is not compatible with the site’s existing zoning. To comply with this requirement, development of the Project site cannot be analyzed under its existing zoning. Consequently, this section analyzes development of the Project site under the CAMU land use designation, but only with non-residential/industrial land uses assumed. Per the City’s interpretation of its Zoning Code, a single use could be developed under the CAMU land use designation and the existing zoning on the site provided that there are no residential uses. This alternative reflects that interpretation.

For purposes of analysis, Alternative 2 assumes that the majority of the Project site would build out as light industrial uses (209 acres) and include a larger stormwater drainage basin than proposed under the proposed Project (30 acres), similar to what would be allowable under the site’s existing general plan designations. A well site in the northwest portion of the Project site would be included in Alternative 2, as it is in the proposed Project. **Figure 5-1** depicts the land uses for Alternative 2 and **Table 5-2** provides the land use summary.

TABLE 5-2: ALTERNATIVE 2 NO PROJECT/EXISTING GENERAL PLAN/INDUSTRIAL USES ONLY LAND USE SUMMARY

PARCEL	LAND USE	ZONING	GROSS AREA (ACRES)	DWELLING UNITS		CAMU LAND USE
				DENSITY (DU/AC)	DUS (UNITS)	
RESIDENTIAL						
LOT 1	CAMU	CAMU-PD	0	4.6	0	LDR
LOT 2	CAMU	CAMU-PD	0	5.3	0	LDR

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PARCEL	LAND USE	ZONING	GROSS AREA (ACRES)	DWELLING UNITS		CAMU LAND USE
				DENSITY (DU/AC)	DUs (UNITS)	
LOT 3	CAMU	CAMU-PD	0	8.7	0	MDR
LOT 4	CAMU	CAMU-PD	0	9.3	0	MDR
LOT 5	CAMU	CAMU-PD	0	7.6	0	MDR
LOT 6	CAMU	CAMU-PD	0	6.9	0	LDR
LOT 7	CAMU	CAMU-PD	0	5.1	0	LDR
LOT 8	CAMU	CAMU-PD	0	5.7	0	LDR
LOT 9	CAMU	CAMU-PD	0	19.5	0	HDR
Residential Total:			0	7.2	0	
COMMERCIAL AND EMPLOYMENT USES						
Service Commercial						
LOT 11	CAMU	CAMU-PD	0			CC
Sub-Total:			0			
Light Industrial (Dixon Opportunity Center)						
LOT 12	CAMU	CAMU-PD	209			T/BP-LI
Sub-Total:			209			
Commercial and Employment Total:			209			
PARKS, OPEN SPACE & PUBLIC USES						
Parks and Open Space						
LOT 14	CAMU	CAMU-PD	0			P/R
LOT 15	CAMU	CAMU-PD	0			P/R (Paseo)
LOT 16	CAMU	CAMU-PD	0			P/R (Paseo)
LOT 17	CAMU	CAMU-PD	0			P/R (Paseo)
LOT 18	CAMU	CAMU-PD	0			P/R (Paseo)
LOT 19	CAMU	CAMU-PD	0			P/R
Parks and Open Space Total:			0			
Public						
LOT 10 (Detention Pond)	CAMU	CAMU-PD	30			P/QP
LOT 13 (Well Site)	CAMU	CAMU-PD	1.58			P/QP
LOT 20 (Drainage Channel)	CAMU	CAMU-PD	1.18			P/QP
Public / Quasi-Public Total:			32.76			
ROADS / R.O.W.		CAMU-PD	17.85			
TOTAL						
Alternative 2 Total:			259.61		0	

SOURCE: CITY OF DIXON 2024; DE NOVO PLANNING GROUP 2024.

Comparative Analysis of Environmental Effects

IMPACTS IDENTIFIED AS BEING THE SAME AS OR SIMILAR TO THOSE OF THE PROPOSED PROJECT

Because the No Project/Existing General Plan/Industrial Uses Only Alternative would develop the same total area as the proposed Project, impacts determined by the development footprint of future projects would be substantially the same as the proposed Project. These impacts would include the conversion of Important Farmland, disturbance to special-status species, riparian habitats (Impact 3.4-1); sensitive natural communities, wetlands, waters of the United States (Impact 3.4-2); migratory fish or wildlife species (Impact 3.4-3); damage to historic, archaeological, paleontological, and tribal cultural resources (Impacts 3.5-1, 3.5-2, 3.5-3, 3.5-4); or substantial alteration of drainage patterns resulting in erosion or siltation (Impact 3.10-3).

The No Project/Existing General Plan/Industrial Uses Only Alternative would consist of developing urban uses and adding artificial lighting to the site, including lighting for streets, sidewalks, and parking lots. Security lighting on the sides of industrial buildings would also be present. These light sources would be shielded downward, similar to the proposed Project.

IMPACTS IDENTIFIED AS BEING LESS SEVERE THAN THOSE OF THE PROPOSED PROJECT

Growth projections would be lower under Alternative 2 compared to the proposed Project as no housing would be constructed, and there would be no impact to population or housing (Impacts 3.12-1 and 3.12-2).

Therefore, population demand-related impacts would be less under Alternative 2, including for public infrastructure and utility systems, including water supply systems (Impacts 3.15-1 through 3.15-6); public services and recreation (Impacts 3.13-1 through 3.13-4); and energy (Impacts 3.5-1 through 3.5-3). In particular, the No Project/Existing General Plan/Industrial Uses Only Alternative would have a lower water demand than the proposed Project. The proposed Project would have a water demand of 191 MG/year, while Alternative 2 would have a demand for 102 MG/year (Impacts 3.16-5 and 3.16-6).

Exposure of residents to potential hazards would also be slightly less under Alternative 2 because there would be no residents as compared to the proposed Project. Impacts related to geology and seismicity (Impacts 3.6-1 through 3.6-7), hazards and hazardous materials (Impacts 3.8-1 through 3.8-6), and hydrology and water quality (Impacts 3.9-1 through 3.9-9) would be less than under the proposed Project.

IMPACTS IDENTIFIED AS BEING MORE SEVERE THAN THOSE OF THE PROPOSED PROJECT

This alternative would develop 209 acres with impervious surfaces, which could result in additional stormwater runoff from the Project site. Instead of having landscaped areas throughout the Project site, this alternative would not include parks, landscaped paseos, or open space areas that could absorb stormwater across the site. Instead, more runoff would be funneled to the drainage basin in the southeast portion of the site. This increase in runoff, however, would result in needing a larger capacity drainage basin when compared to the proposed Project. Although the larger drainage basin would be approximately 30 acres under this alternative and sized to handle the increase in runoff from the Project site, the No Project/Existing General

5.0 ALTERNATIVES TO THE PROPOSED PROJECT

Plan/Industrial Uses Only Alternative would have a greater hydrology and stormwater impact than the proposed Project.

Although no residents would occupy the Project site under Alternative 2, workers would be present onsite. Due to the anticipated industrial nature of the No Project/Existing General Plan/Industrial Uses Only Alternative, it is possible that those uses could handle hazardous materials. However, existing regulations would govern the use of potential chemicals.

Relationship to Significant and Unavoidable Impacts

Currently, the Project site is used for agricultural purposes. As the proposed Project would convert the entire Project site from agricultural uses to urban uses, the No Project/Existing General Plan/Industrial Uses Only Alternative would do the same. All 259.61 acres of the project site would be developed with industrial uses and a retention basin. As such, this alternative would not reduce the impacts to agricultural lands when compared to the proposed Project. The loss of the agricultural land, including prime farmland, would be a significant and unavoidable impact under both the No Project/Existing General Plan/Industrial Uses Only Alternative and the proposed Project. Therefore, the No Project/Existing General Plan/Industrial Uses Only Alternative would have equal, significant and unavoidable impacts on agricultural resources when compared to the proposed Project.

Air emissions under Alternative 2 could be similar to the amounts of air emissions dispersed under the proposed Project. Workers would continue to use vehicles to arrive at and depart from the Project site. However, the traffic pattern would be different as workers would likely be traveling during the AM and PM peak hours, as opposed to a more dispersed timeframe of travel that occurs with residential uses. Uses in the No Project/Existing General Plan/Industrial Uses Only Alternative would be required to adhere to the same mitigation measures as the proposed Project such as achieving Title 24 energy efficiency for all buildings, use of newer construction and operational equipment, and controlling dust during construction activities. Even with the implementation of mitigation measures, impacts under the No Project/Existing General Plan/Industrial Uses Only Alternative would remain significant and unavoidable.

Development of the Project site with all industrial uses would result in the generation of traffic, particularly during AM and PM peak hours as people come to and depart from this employment use. Vehicle miles traveled per job would be over the threshold established (14.2 VMT/job), and would be higher under this alternative (16.8 VMT/job) as compared to the proposed Project (16.3 VMT/job). Transportation impacts under the No Project/Existing General Plan/Industrial Uses Only Alternative would remain significant and unavoidable.

Relationship to Project Objectives

Alternative 2, No Project/Existing General Plan/Industrial Uses Only Alternative would meet some of the Project objectives, but not most. The No Project/Existing General Plan/Industrial Uses Only Alternative would provide stormwater management facilities large enough to address the stormwater runoff volumes anticipated from development of the entire parcel, and it would provide a future opportunity to tie into regional stormwater solutions, if a regional solution is

realized. Further, the No Project/Existing General Plan/Industrial Uses Only Alternative would create a large employment base, the development of the site as a wholly employment use would improve the jobs/housing imbalance that exists in the City.

The No Project/Existing General Plan/Industrial Uses Only Alternative would not provide any residential units, and, therefore, would not create home ownership opportunities, would not create residential areas to support employment-based uses, would not create a neighborhood mixing a variety of uses and residential types, and would not provide a residential unit count necessary to pay the cost of extending needed infrastructure to the employment base portion of the project and the remaining undeveloped properties in the Northeast Quadrant Specific Plan area.

ALTERNATIVE 3 – INCREASED NON-RESIDENTIAL/DECREASED RESIDENTIAL

This alternative considered development of the northern portion of the Project site, approximately half of the site's acreage, as light industrial, similar to how the site may build out under existing zoning conditions. The light industrial area would cover approximately 118.81 acres, and be the closest use to I-80. A well site would be included in the northwest corner of the Project site, as it would under the proposed Project.

The southern portion of the Project site would be developed with uses similar to the proposed Project, including light, medium, and high density residential; community commercial; parks; and a drainage basin. The number of dwelling units and their associated residential acreage would decrease by approximately half as compared to the proposed Project. The parks acreage would have a commensurate reduction in size. The acreage for both the service commercial and light industrial uses would increase by approximately 2.5 times.

The drainage basin would increase from 25.14 acres to 28 acres because more of the Project site would be converted to impervious surfaces than under the proposed Project.

Figure 5-2 depicts the land uses for Alternative 3 and Table 5-3 provides the land use summary.

TABLE 5-3: ALTERNATIVE 3 INCREASED NON-RESIDENTIAL/DECREASED RESIDENTIAL LAND USE SUMMARY

PARCEL	LAND USE	ZONING	GROSS AREA (ACRES)	DWELLING UNITS		CAMU LAND USE
				DENSITY (DU/AC)	DUs (UNITS)	
RESIDENTIAL						
LOT 1	CAMU	CAMU-PD	13.95	4.6	64	LDR
LOT 2	CAMU	CAMU-PD	9.03	5.3	48	LDR
LOT 3	CAMU	CAMU-PD	5.62	8.7	53	MDR
LOT 4	CAMU	CAMU-PD	3.23	9.3	30	MDR
LOT 5	CAMU	CAMU-PD	7.90	7.6	60	MDR
LOT 6	CAMU	CAMU-PD	9.40	6.9	67	LDR

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PARCEL	LAND USE	ZONING	GROSS AREA (ACRES)	DWELLING UNITS		CAMU LAND USE
				DENSITY (DU/AC)	DUs (UNITS)	
LOT 7	CAMU	CAMU-PD	9.45	5.1	46	LDR
LOT 8	CAMU	CAMU-PD	7.80	5.7	43	LDR
LOT 9	CAMU	CAMU-PD	5.77	19.5	113	HDR
Residential Total:			72.14	7.2	524	
COMMERCIAL AND EMPLOYMENT USES						
Service Commercial						
LOT 11	CAMU	CAMU-PD	6			CC
Sub-Total:			6			
Light Industrial (Dixon Opportunity Center)						
LOT 12	CAMU	CAMU-PD	118.81			T/BP-LI
Sub-Total:			118.81			
Commercial and Employment Total:			124.81			
PARKS, OPEN SPACE & PUBLIC USES						
Parks and Open Space						
LOT 14	CAMU	CAMU-PD	2			P/R
LOT 15	CAMU	CAMU-PD	0			P/R (Paseo)
LOT 16	CAMU	CAMU-PD	0			P/R (Paseo)
LOT 17	CAMU	CAMU-PD	1			P/R (Paseo)
LOT 18	CAMU	CAMU-PD	1			P/R (Paseo)
LOT 19	CAMU	CAMU-PD	5			P/R
Parks and Open Space Total:			9			
Public						
LOT 10 (Detention Pond)	CAMU	CAMU-PD	28			P/QP
LOT 13 (Well Site)	CAMU	CAMU-PD	1.58			P/QP
LOT 20 (Drainage Channel)	CAMU	CAMU-PD	1.18			P/QP
Public / Quasi-Public Total:			30.76			
ROADS / R.O.W.		CAMU-PD	22.9			
TOTAL						
Alternative 3 Total:			259.61		524	

SOURCE: CITY OF DIXON 2024; DE NOVO PLANNING GROUP 2024.

Comparative Analysis of Environmental Effects

IMPACTS IDENTIFIED AS BEING THE SAME AS OR SIMILAR TO THOSE OF THE PROPOSED PROJECT

Because the Increased Non-Residential/Decreased Residential would develop the same total area as the proposed Project, impacts determined by the development footprint of future projects would be substantially the same as the proposed Project. These impacts would include

disturbance to special-status species, riparian habitats (Impact 3.4-1); sensitive natural communities, wetlands, waters of the United States (Impact 3.4-2); migratory fish or wildlife species (Impact 3.4-3); damage to historic, archaeological, paleontological, and tribal cultural resources (Impacts 3.5-1, 3.5-2, 3.5-3, 3.5-4); or substantial alteration of drainage patterns resulting in erosion or siltation (Impact 3.10-3).

The Increased Non-Residential/Decreased Residential Alternative would consist of developing urban uses and adding artificial lighting to the site, including lighting for streets, sidewalks, and parking lots. Security lighting on the sides of industrial buildings would also be present. Lighting sources associated with parks, paseos, and residential units would also be present. These light sources would be shielded downward, similar to the proposed Project.

Noise levels would also be similar to the proposed Project as a variety of uses would be developed on the Project site. Any noise differences between the proposed Project and the Increased Non-Residential/Decreased Residential would be small and spread across the area, and no difference in noise levels (Impact 3.12-1 through Impact 3.12-4) under the Increased Non-Residential/Decreased Residential Alternative would be detected.

Similar to the proposed Project, the Increased Non-Residential/Decreased Residential Alternative would not result in unplanned population growth such that the provision of new housing would be required. The alternative would appropriately plan for population growth in the city, and there would be no impact (Impacts 3.13-1 and 3.13-2).

The Increased Non-Residential/Decreased Residential Alternative would have approximately the same demand for public utilities including water supplies (Impact 3.16-1 through and Impact 3.16-8) even though fewer housing units would be developed. The corresponding increase in industrial acreage on the Project site may still require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, similar to the proposed Project, in order to serve the development on the site. Similar to the proposed Project, energy usage would not be wasteful, inefficient, or unnecessary as units would be constructed to Title 24 standards (Impact 3.6-1).

IMPACTS IDENTIFIED AS BEING LESS SEVERE THAN THOSE OF THE PROPOSED PROJECT

This alternative would reduce the number of housing units from 1,041 to 524, a 50 percent reduction in the number of units, while doubling the size of the Dixon Opportunity Center employment use.

The presence of fewer homes as compared to the proposed Project would result in the demand for fewer public services such as police protection, fire protection, and schools. Further, there would be less demand of recreational facilities as there would be fewer residents.

IMPACTS IDENTIFIED AS BEING MORE SEVERE THAN THOSE OF THE PROPOSED PROJECT

Development of the Project site with more industrial uses and less residential uses would result in the generation of traffic, particularly during AM and PM peak hours as people come to and depart from the employment use. Vehicle miles traveled per job and per resident would be over

the threshold established and would be higher under this alternative as compared to the proposed Project. Transportation impacts under the Increased Non-Residential/Decreased Residential Alternative would remain significant and unavoidable.

Relationship to Significant and Unavoidable Impacts

Currently, the majority of the Project site is used for agricultural purposes. The Increased Non-Residential/Decreased Residential Alternative would still result in the complete development of the Project site, and would irreversibly convert Important Farmland to urban uses. As such, this alternative would not reduce the impacts to agricultural lands when compared to the proposed Project. The loss of the agricultural land, including prime farmland, would be a significant and unavoidable impact under both the Increased Non-Residential/Decreased Residential Alternative and the proposed Project. Therefore, the Reduced Residential Units Alternative would have equal impacts on agricultural resources when compared to the proposed Project.

Implementation of the proposed Project would cause an increase in traffic, which is the dominant source of air emissions associated with the proposed Project. Under the Increased Non-Residential/Decreased Residential Alternative, the Project site would be developed with the same components as described in the Project Description. However, the land use mix would introduce more industrial and employment square footage as compared to the proposed Project. The Increased Non-Residential/Decreased Residential Alternative would also reduce the amount of residential development on the site as compared to the proposed Project, thereby reducing the number of people who could live near the Alternative's employment center. The total development would be equal to the proposed Project. Therefore, the amount of traffic generated from the Project site would be equal under this alternative and the proposed Project. Mobile source air emissions are directly correlated to traffic volume; therefore, it is estimated that the similar trip volume would result in a similar amount of the mobile source emissions. Additionally, the area source emissions would be similar to the proposed Project.

Uses in the Increased Non-Residential/Decreased Residential Alternative would be required to adhere to the same mitigation measures as the proposed Project. The Increased Non-Residential/Decreased Residential would result in similar air emissions when compared to the proposed Project, and would remain significant and unavoidable.

The Increased Non-Residential/Decreased Residential Alternative would have a mix of housing and employment uses. As such, it is possible for people to live near their job, resulting in a shorter commute. However, because the number of residential uses would be decreased by half as compared to the proposed Project, Alternative 3 would be a jobs-heavy project, resulting in employees commuting into the site from elsewhere. While reducing the number of residential units within the Project site will slightly reduce the trip generation of vehicles and VMT impacts, implementation of Alternative 3 would still be expected to result in a significant and unavoidable VMT impact (Impact 3.15-2 and Impact 3.15-5), the same as the proposed Project.

Relationship to Project Objectives

The Non-Residential/Decreased Residential Alternative would meet Project objectives 1 through 4 by implementing a project consistent with the site's Campus Mixed Use General Plan designation; expanding and enhancing the City's employment base and reduce the City's current jobs/housing imbalance thereby contributing to the City's economic development goal; creating a campus neighborhood where residential units support the employment-based uses; creating a neighborhood providing residents the opportunity to walk or bike to work in the neighborhood's employment area. However, this alternative would reduce the number of housing units from 1,041 to 524, a 50 percent reduction in the number of units, and therefore would reduce the ability to meet Project objectives 5 through 9. These include, providing a mix of housing and densities, including apartments, small lot and larger lot single family homes; creating home ownership opportunities for the missing middle; creating rental residential opportunities adjacent to employment uses; creating an employment base area that will be more attractive to employers due to the proximity of complementary residential uses; and providing a residential unit count necessary to pay the cost of extending needed infrastructure to the employment base portion of the Project and the remaining undeveloped properties in the Northeast Quadrant Specific Plan. Alternative 3 would also meet the 10th Project objective to provide stormwater management facilities that address the impacts of the Project, but also opportunities for more regional stormwater management facilities.

5.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The qualitative environmental effects of each alternative in relation to the proposed Project are summarized in **Table 5-4**.

Based on the analysis of alternatives and the proposed Project, the environmentally superior alternative would be Alternative 1 No Project (No Build).

CEQA Guidelines Section 15126(e)(2) requires an EIR to identify an environmentally superior alternative. If the No Project Alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives.

Overall, the proposed Project would be the environmentally superior alternative because it would have the least severe impacts as compared to the other alternatives.

5.0 ALTERNATIVES TO THE PROPOSED PROJECT

TABLE 5-4: COMPARISON OF ALTERNATIVES

ENVIRONMENTAL TOPIC AREA	THE CAMPUS SIGNIFICANCE LEVEL	ALTERNATIVE 1 NO PROJECT (NO BUILD)	ALTERNATIVE 2 NO PROJECT/ EXISTING GENERAL PLAN/INDUSTRIAL ONLY	ALTERNATIVE 3 INCREASED NON-RESIDENTIAL/ DECREASED RESIDENTIAL
Aesthetics, Light, and Glare	LTS	Less	Similar	Similar
Agricultural Resources	SU	Less	Similar	Similar
Air Quality	SU	Less	More	Similar
Biological Resources	LTSWMM	Less	Similar	Similar
Cultural and Tribal Cultural Resources	LTSWMM	Less	Similar	Similar
Energy	LTS	Less	Similar	Similar
Geology and Soils	LTSWMM	Less	Similar	Similar
Greenhouse Gas Emissions	LTS	Less	More	Similar
Hazards and Hazardous Materials	LTS	Less	Less	Similar
Hydrology and Water Quality	LTS	Less	More	Similar
Land Use	LTSWMM	Less	Similar	Similar
Noise	LTS	Less	Similar	Similar
Population, Housing, and Employment	LTS	Less	Less	Similar
Public Services and Recreation	LTS	Less	Less	Less
Transportation	SU	Less	More	More
Utilities and Service Systems	LTS	Less	Less	Similar

Notes:

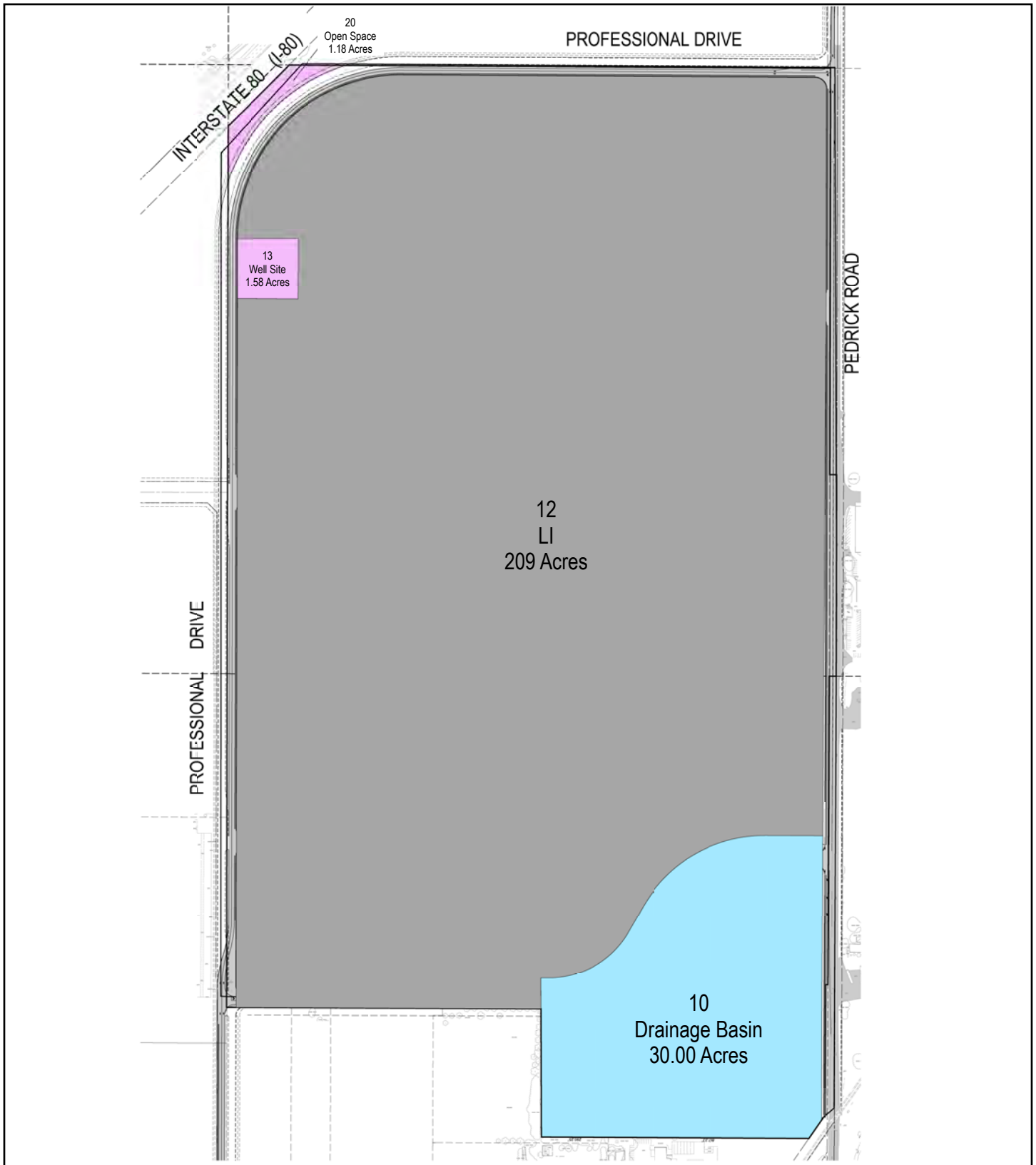
NI = No Impact

LTS = Less than Significant

LTSWMM = Less than Significant with Mitigation

SU = Significant and Unavoidable

Source: De Novo Planning Group, 2024.

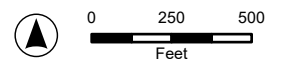


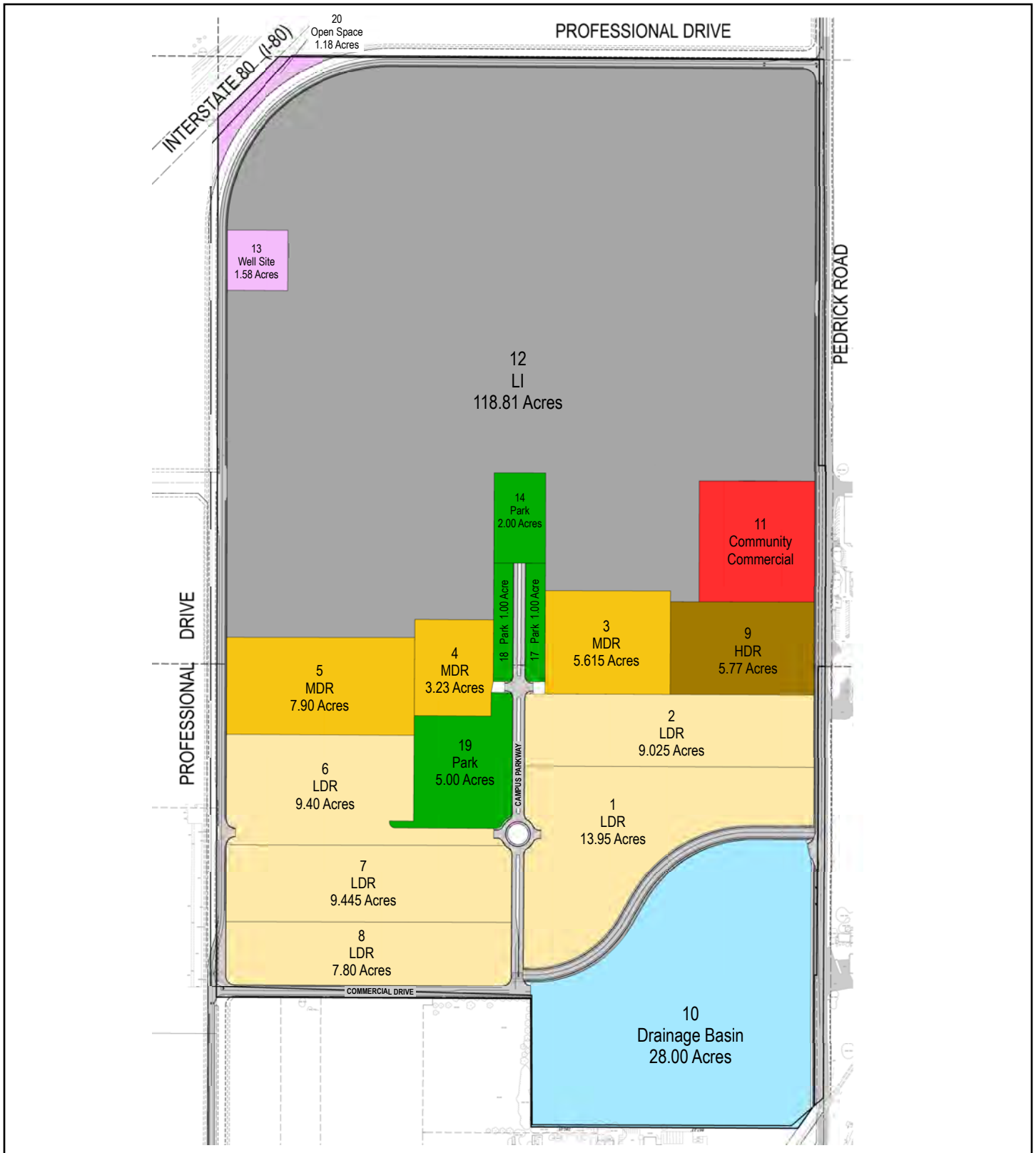
LEGEND

- LI - Light Industrial
- Drainage Basin
- Other

THE CAMPUS EIR

Figure 5-1. Alternative 2 - No Project/Existing General Plan/Industrial Uses Only



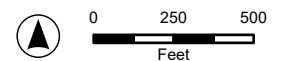


LEGEND

- LDR - Low Density Residential
- MDR - Medium Density Residential
- HDR - High Density Residential
- LI - Light Industrial
- Community Commercial
- Park
- Drainage Basin
- Other

THE CAMPUS EIR

Figure 5-2. Alternative 3 - Increased Non-Residential/ Decreased Residential



This section presents information about the proposed Project's impact on specific environmental topic areas that were determined to have no impact. During this evaluation, certain impacts of the Project were found to have no impact or be less than significant due to the inability of the Project to create such impacts or the absence of Project characteristics producing effects of this type. CEQA Guidelines Section 15128 requires an EIR to briefly indicate the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. In accordance with CEQA Guidelines Section 15128, the following section includes criteria from Appendix G of the CEQA Guidelines that were found to be less than significant.

6.1 AESTHETICS AND VISUAL RESOURCES

Impacts to aesthetic resources are discussed in Section 3.1, Aesthetics and Visual Resources. However, there is one issue related to aesthetics where The Campus project would have no impact. This analysis uses the CEQA Guidelines Appendix G questions as thresholds to determine the significance of the project. A significant effect on aesthetics and visual resources would occur if implementation of The Campus project would:

1. Have a substantial adverse effect on a scenic vista;
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
3. Substantially degrade the existing visual character or quality of public views the site and its surroundings; or
4. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Thresholds 1, 3, and 4 are discussed in Section 3.1. Aesthetics and Visual Resources. Threshold 2 is discussed below.

STATE SCENIC HIGHWAYS

There are no designated State Scenic Highways in the vicinity of the project site. There are no highways in Solano County listed as Designated Scenic Highway by the Caltrans Scenic Highway Mapping System. Only one highway section in Solano County is listed as an Eligible State Scenic Highway by the Caltrans Scenic Highway Mapping System; the segment of SR 128 from approximately the City of Winters to Rutherford to the west of the county.¹

Neither the City of Dixon and nor the project site are visible from this eligible roadway segment. Therefore, the proposed Project would have **no impact** on scenic resources located within a State Scenic Highway.

6.2 AGRICULTURAL RESOURCES

Impacts to agricultural resources are discussed in Section 3.2, Agricultural Resources. However, there are some issues related to agricultural resources where The Campus Project would have no impact. This

¹ Caltrans, 2019. Scenic Highways, California State Scenic Highways. List of eligible and officially designated State Scenic Highways. Available: <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>. Accessed January 15, 2024.

analysis uses the CEQA Guidelines Appendix G questions as thresholds to determine the significance of the project. A significant effect on agricultural resources would occur if implementation of The Campus Project would:

1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
2. Conflict with existing zoning for agricultural use, or a Williamson Act contract;
3. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g));
4. Result in the loss of forest land or conversion of forest land to non-forest use; or
5. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

Thresholds 1 and 5 are discussed in Section 3.2, Agricultural Resources. Thresholds 2, 3, and 4 are discussed below.

AGRICULTURAL ZONING AND WILLIAMSON ACT CONTRACTS

The project site is not zoned for agriculture; it is currently planned for development under the Professional & Admin Office (PAO-PUD), Neighborhood Commercial (CN-PUD), and Light Industrial (ML-PUD) zoning designations. The Campus project would rezone the site to Campus Mixed Use Planned Development (CAMU-PD) which calls for development, as anticipated and planned for in the City's General Plan. Thus, the Project would not involve the conversion of farmland to non-agricultural use or conflict with existing zoning for agricultural use or a Williamson Act contract. Therefore, **no impact** would occur in this regard.

FOREST ZONING

According to the 2018 City of Dixon Zoning Map, the project site is currently zoned as Professional & Admin Office (PAO-PUD), Neighborhood Commercial (CN-PUD), and Light Industrial (ML-PUD) and would be rezoned to Campus Mixed Use Planned Development (CAMU-PD) consistent with the property's General Plan land use designation. Thus, the project site does not contain any land dedicated as, or zoned for, forest or timberland use.² As such, the proposed Project would not conflict with existing zoning for, or cause the rezoning of, forest land or timberland. **No impact** would occur.

FOREST LAND

In accordance with the definition provided in California Public Resources Code Section 12220(g), "forest land" is land that can support, under natural conditions, 10 percent native tree cover of any species, including hardwoods, and that allows for the preservation or management of forest-related resources

² City of Dixon, 2018. *Zoning Map*

such as timber, aesthetic value, fish and wildlife, biodiversity, water quality, recreational facilities, and other public benefits.

The project site is located adjacent to an urbanized area and does not support forest land use activities. According to the US Forest Service Lands Map by the United States Department of Agriculture Forest Service, there are no National Forest lands within the City of Dixon.³ Therefore, The Campus Project would not result in the loss of forest land or conversion of forest land to non-forest use, and **no impact** would occur.

6.3 GEOLOGY AND SOILS

Impacts to geology and soil resources are discussed in Section 3.7, Geology and Soils. However, there are some issues related to geology and soil resources where The Campus project would have no impact. This analysis uses the CEQA Guidelines Appendix G questions as thresholds to determine the significance of the project. A significant effect on geology and soil resources would occur if implementation of The Campus Project would:

1. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving;
 - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42;
 - Strong seismic ground shaking;
 - Seismic-related ground failure, including liquefaction; and
 - Landslides.
2. Result in substantial soil erosion or the loss of topsoil;
3. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
4. Be located on expansive soil, as defined in Tables 18-1-D of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property;
5. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water; or
6. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Thresholds 2, 3, 4, and 6 are discussed in Section 3.7, Geology and Soils. Thresholds 1 and 5 are discussed below.

³ U.S. Department of Agriculture, Forest Service, 2023. *USA Forest Service Lands*. Website: https://services.arcgis.com/P3ePLMYS2RVChkXj/arcgis/rest/services/USA_Forest_Service_Lands/FeatureServer. Accessed January 16, 2024.

KNOWN EARTHQUAKE FAULT OR LANDSLIDES HAZARDS

The project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone and no known surface expression of active faults is believed to exist within the site. Since there are no known active faults crossing the project site, and the site is not located within an Alquist-Priolo Earthquake Fault Special Study Zone, the Geotechnical Report concludes that ground rupture is unlikely at the project site. Additionally, based on topographic and lithologic data, the Geotechnical Report concludes that the risk of landslides is considered low to negligible at the project site due to its flat topography. Therefore, **no impact** would occur related to rupture of a known earthquake fault or landslides.

IMPACTS TO SEPTIC TANKS OR ALTERNATIVE WASTEWATER SYSTEMS

The City of Dixon owns and operates a wastewater collection, treatment, and disposal system, and provides sanitary sewage service within the city, including the project site. The project proposes a sanitary sewer main that would convey wastewater flows from the project site and adjacent industrial parcels into the existing sewer main in Fitzgerald Way, which conveys flows to the existing wastewater treatment plant south of the city. Development within the project site would be required to connect to the City's existing sewer system and would not involve the use of septic tanks or alternative wastewater disposal systems. Therefore, **no impact** would occur related to the use of septic tanks or alternative wastewater disposal systems.

6.4 HAZARDS AND HAZARDOUS MATERIALS

Impacts to hazards and hazardous materials are discussed in Section 3.9, Hazards and Hazardous Materials. However, there are some issues related to hazards and hazardous materials where The Campus project would have no impact. This analysis uses the CEQA Guidelines Appendix G questions as thresholds to determine the significance of the project. A significant effect on hazards and hazardous materials would occur if implementation of The Campus Project would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;
6. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
7. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

Thresholds 1, 2, 4, 5, 6, and 7 are discussed in Section 3.9, Hazards and Hazardous Materials. Threshold 3 is discussed below.

HAZARDOUS EMISSIONS NEAR SCHOOLS

The project site is not located within one-quarter mile of a school. The nearest school is the Gretchen Higgins Elementary, located approximately 1.1 miles southwest of the project site. Therefore, **no impact** would occur related to emitting hazardous emissions or handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

6.5 MINERAL RESOURCES

In accordance with California's Surface Mining and Reclamation Act of 1975 (SMARA), the State Geologist, through the California Department of Conservation, California Geological Survey (formerly Division of Mines and Geology), is responsible for identifying and mapping the non-fuel mineral resources of the State. Economically significant mineral deposits are classified based on the known and inferred mineral resource potential of the land using the California Mineral Land Classification System, which includes the following four mineral resource zones.

- MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- MRZ-2: Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- MRZ-3: Areas containing mineral deposits, the significance of which cannot be evaluated.
- MRZ-4: Areas where available information is inadequate for assignment to any other zone.

The City of Dixon has areas designated as MRZ-1 and MRZ-4 by the California Department of Conservation, California Geological Survey.⁴ As shown on the Mineral Classification Map prepared by the California Division of Mines and Geology, the project site lies within an area classified MRZ-4, indicating the geologic information is inadequate to assign to any other mineral resource zone category. Additionally, the City of Dixon General Plan EIR states that other than a few existing idle oil wells, mineral resources have not been identified in the city, including the project site. Therefore, **no impact** to mineral resources would occur as a result of the proposed Project.

6.6 POPULATION, HOUSING, AND EMPLOYMENT

Impacts on population, housing, and employment are discussed in Section 3.13, Population, Housing, and Employment. However, there are some issues related to population, housing, and employment resources where The Campus Project would have no impact. This analysis uses the CEQA Guidelines Appendix G questions as thresholds to determine the significance of the project. A significant effect on population, housing, and employment would occur if implementation of The Campus Project would:

1. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or

⁴ California Department of Conservation, Division of Mines and Geology. 2018. *Mineral Land Classification Map of Concrete Aggregate in the Greater Sacramento Area Production-Consumption Region*.

2. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

Threshold 1 is discussed in Section 3.13, Population, Housing, and Employment. Threshold 2 is discussed below.

DISPLACE SUBSTANTIAL NUMBERS OF PEOPLE OR EXISTING HOUSING

There are no occupied housing units currently located on the project site. Construction and operation of the proposed Project would not remove any existing housing units within the City of Dixon, and would not displace any residents. Therefore, **no impact** would occur related to the displacement of substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere.

6.7 WILDFIRE

Threat from wildfire hazards is determined based on a number of factors, including fuel loading (vegetation); topography; climatic conditions, such as wind, humidity, and temperature; and the proximity of structures and urban development to fire hazards. Wildland fire hazards are most pronounced in Wildland-Urban Interface (WUI) areas and areas of development that are located within Fire Hazard Severity Zones (FHSZs). WUI areas typically contain higher amounts of vegetation that can serve as fuel for fires. Generally, the periods of greatest risk for wildland fire are the late summer and early fall when vegetation is at its driest. Human activity, including residential and agricultural burning, campfires, and the use of fireworks can all trigger fires. Natural causes such as lightning strikes may also start fires.

The State has charged the California Department of Forestry and Fire Protection (CAL FIRE) with the identification of FHSZ within State Responsibility Areas (SRA). In addition, CAL FIRE recommends Very High Fire Hazard Severity Zones (VHFHSZ) identified within any Local Responsibility Areas (LRA). The FHSZ maps are used by the State Fire Marshall as a basis for the adoption of applicable building code standards and are meant to help limit wildfire damage to structures through planning, prevention, and the application of risk reduction measures. The mapped areas, or “zones,” are based on factors such as fuel (e.g., flammable vegetation), slope, and fire weather. There are three zones, based on increasing fire hazard: moderate, high, and very high.

Incorporated areas such as the City are considered LRAs, meaning that the City and/or other local fire districts are responsible for fire protection services. There are no areas designated as moderate, high, or very high FHSZs within the City, including the Project site.⁵ The nearest high and very high fire FHSZs are located to the west of Dixon, along the western boundary of Solano County.⁶ Additionally, as discussed in the General Plan EIR, the Project site is classified as having little to no fire threat.⁷

⁵ City of Dixon, 2021. *General Plan 2040*. May, 2021. Figure NE-10.

⁶ California Department of Forestry and Fire Protection, 2023. *State Responsibility Area Fire Hazard Severity Zones: Solano County*. June 15, 2023.

⁷ City of Dixon, 2020. *General Plan 2040 Environmental Impact Report. Public Review Draft*. July, 2020. Figure 3.8-3.

This analysis uses the CEQA Guidelines Appendix G questions as thresholds to determine the significance of the Project. The proposed Project would have a significant impact related to wildfire if located in or near state responsibility areas or lands classified as very high fire hazard severity zones, and if it would:

- Substantially impair an adopted emergency response plan or emergency evacuation plan;
- Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
- Require the installation of maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

STATE RESPONSIBILITY AREAS OR LANDS CLASSIFIED AS VERY HIGH FIRE HAZARD SEVERITY ZONES

The project site is not located within or near a State Responsibility Area (SRA), nor is the site located within a Very High Fire Hazard Severity Zone (VHFHSZ) within a Local Responsibility Area (LRA). Further, the proposed project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. Development of the project would be required to comply with applicable City codes and regulations pertaining to emergency response and evacuation plans. Prior to construction, proposed site plans would be required to undergo review by the Dixon Fire Department to ensure that adequate emergency access would be maintained within the area. The proposed project would also be required to comply with all applicable codes and ordinances for emergency access, including resolving any deficiencies in access that could preclude emergency evacuation or emergency response identified by the fire department. During project operation, the City and/or County Emergency Operations Plan (EOP) would be implemented and emergency response and evacuation would occur dependent upon the emergency situation, consistent with the respective EOPs. Therefore, **no impact** would occur related to substantially impairing an adopted emergency response plan or emergency evacuation plan.

EXACERBATE WILDFIRE RISKS

The project site is not located within or near an SRA, nor is the site located within a VHFHSZ within an LRA. The project site and surrounding area are relatively flat and do not contain any slopes or other geographics features that would exacerbate wildfire risks. Additionally, adjacent roadways and nearby urban development would effectively act as firebreaks for the site. Development of the project would not exacerbate fire risks within the project site or vicinity. Therefore, **no impact** would occur that, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

INSTALLATION OR MAINTENANCE OF WILDFIRE FIGHTING INFRASTRUCTURE

The project site is not located within or near an SRA, nor is the site located within a VHFHSZ within an LRA. The project proposes to install roadways and utilities infrastructure to serve the NEQSP plan area. Infrastructure improvements would occur within land classified by the Dixon General Plan as having little to no fire threat (e.g., urbanized areas or undeveloped farmland) and would not occur within or near an SRA or VHFHSZ within an LRA. Therefore, **no impact** would occur related to the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

EXPOSURE OF PEOPLE OR STRUCTURES TO SIGNIFICANT RISKS

The project site is not located within or near an SRA, nor is the site located within a VHFHSZ within an LRA. Further, the City and surrounding area are relatively flat. Therefore, **no impact** would occur related to exposing people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

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Electronic versions of the Draft EIR and all of the supporting technical appendices are available at:

www.cityofdixon.us/environmentalreviewdocuments

Technical appendices are available under "The Campus/Dixon 257" heading on the City's website.

Appendices

- Appendix A: Notice of Preparation (NOP) and NOP Comments
- Appendix B: Air Quality, Greenhouse Gas, and Energy
- Appendix C: Aquatic Resources Delineation
- Appendix D: Biological Resources Assessment
- Appendix E: Preliminary Jurisdictional Delineation
- Appendix F: Noise Data
- Appendix G: Traffic Impact Analysis
- Appendix H: Water Supply Assessment
- Appendix I: Water Study
- Appendix J: Phase I Environmental Site Assessment, Post-Excavation Soil Gas Survey
- Appendix K: Sewer Study
- Appendix L: Geotechnical Report
- Appendix M: Drainage Study
- Appendix N: Tribal Consultation Communication
- Appendix O: Cultural Resources Assessment (Confidential; on file at the City offices)