

Brighton Landing Specific Plan Draft Environmental Impact Report

for the City of Vacaville



SCH # 2011022044

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Prepared By:



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1 INTRODUCTION

This Draft Environmental Impact Report (EIR) has been prepared to provide an assessment of the potential environmental consequences of adopting the Brighton Landing Specific Plan, General Plan Amendment, Rezoning, Tentative Subdivision Map, Planned Development, Development Agreement, and associated actions. The Specific Plan document and project exhibits have been prepared by Phillippi Engineering, Inc. on behalf of Sares-Regis developers. A Specific Plan provides guidelines for potential future development in a particular area.

Development under a Specific Plan generally proceeds as a series of smaller projects or phases that may be implemented separately, which, under CEQA Guidelines 15168 (a) and subsequent, constitutes “a series of actions that can be characterized as one large project” appropriately considered by a program-level environmental document. This analysis also includes project-specific analysis of actions that will carry out development of the project.

The assessment in this Draft EIR is designed to inform City of Vacaville decision-makers, other responsible agencies, and the public-at-large of the nature of the Specific Plan and its effect on the environment. Additionally, when appropriate, this Draft EIR identifies mitigation measures that, if effectively implemented, would reduce or avoid potentially significant impacts. Furthermore, this Draft EIR examines alternatives to the Specific Plan that could reduce or avoid the identified significant impacts.

As this is both a project-level and a program EIR, it should be noted that future projects or phases may require additional, project-specific environmental analysis. In order to identify whether additional analysis would be necessary when the project is implemented, the Lead Agency (the City) will need to determine the following:

- “ Whether the planned characteristics of the Specific Plan are substantially different from those defined in the Program EIR.
- “ Whether the Specific Plan would require additional mitigation measures.

- “ Whether specific impacts were not evaluated in sufficient detail in the Program EIR.

If any of these conditions apply, then a project-specific Initial Study or EIR would be necessary to identify how the impacts of the project differ from those identified in this Draft EIR or what additional mitigation measures would be necessary. This EIR is anticipated to provide a basis for future project-level CEQA analysis.

A. Proposed Action

The proposed project, the Brighton Landing Specific Plan (Specific Plan), contains land use, circulation, and design goals, policies, and actions to guide investment and development in the Specific Plan area. The Specific Plan is described in more detail in Chapter 3, Project Description. The proposed actions include the full range of items listed above, all to be adopted by the City Council. There would also be an action by the Solano Irrigation District for an amendment to the Master Water Agreement and, if required, actions by Solano County for a detention basin proposed in an area that would remain unincorporated.

B. Related Items

1. General Plan Update Process

The City of Vacaville is currently engaged in a General Plan Update (Proposed General Plan Update). The Brighton Landing Specific Plan conforms to the Preferred Land Use Alternative accepted by the City Council on December 13, 2011. However, as the Proposed General Plan Update and EIR have not yet been published, this EIR presents the first CEQA review of the proposed Specific Plan land uses.

2. Jepson Parkway Project

Leisure Town Road is due to be widened through land that runs down the western boundary of the Specific Plan area.¹ The road will be renamed Jepson Parkway. A joint Environmental Impact Report/Environmental Impact Statement (EIR/EIS), as required for projects that use some federal funds, has been prepared, and approved by lead agencies.² Impacts from construction of Jepson Parkway have therefore already been recognized in another CEQA document. Pursuant to CEQA Guidelines Section 15152(d), this EIR is therefore limited to impacts which were “not examined as significant effects on the environment in the prior EIR.” However, it is possible that Brighton Landing construction may happen prior to Jepson Parkway construction in the Specific Plan area. This EIR acknowledges this possibility by analyzing Specific Plan impacts both with (under cumulative impacts) and without (under project impacts) Jepson Parkway construction.

3. Properties at the Corner of Leisure Town and Elmira Roads

The Specific Plan applicant does not own the three parcels located at the southeast quadrant of the intersection of Leisure Town Road and Elmira Road. If the Specific Plan is adopted by the City of Vacaville, the properties would stay in their existing condition. However, any redevelopment of these properties would be governed by the new land use designations described in the Specific Plan.

C. Planning Process

1. Notice of Preparation

Because it was anticipated that the Specific Plan may cause potentially significant impacts on the environment, the City directed this EIR be prepared

¹ http://www.sta.ca.gov/Content/10080/The_Jepson_Parkway_Project.html, accessed January 19, 2012.

² State of California Department of Transportation and the Solano Transportation Authority, 2011. *Jepson Parkway Project Final Environmental Impact Statement and Section 4(f) Evaluation*.

without the need for an initial study. A Notice of Preparation (NOP) of an EIR was published on February 11, 2011. The NOP announced the date and venue for the public Scoping Meeting. The NOP described the environmental issues to be covered in the EIR and invited comments on the proposed EIR scope. The NOP was sent to the State Clearinghouse, as required under CEQA, and to interested parties. These included: government agencies with a responsibility or interest over the project area and other areas likely to be affected by the Project, non-governmental agencies (NGOs), adjacent property owners and residents, elected officials, and utility owners.

2. Public Scoping Meeting

One public scoping meeting to describe the EIR process and to solicit comments on issues that should be covered in the EIR was held at the Ulatis Community Center on March 1, 2011.

3. Comments Received

Comments were received verbally at the Scoping Meeting and have been transcribed for this EIR. Written comments were received in the 30-day (i.e., February 11, 2011 to March 17, 2011) comment period following publication of the NOP.

Together these verbal and written comments constitute the City of Vacaville's scoping process which helped to identify areas of focus for this EIR. Through the scoping process, the following environmental issue areas were found to involve potentially significant impacts and are addressed in this EIR:

- " Aesthetics
- " Agriculture and Forestry Resources
- " Air Quality
- " Biological Resources
- " Cultural Resources
- " Geology, Soils and Mineral Resources
- " Greenhouse Gas Emissions
- " Hazards and Hazardous Materials

- “ Hydrology and Water Quality
- “ Land Use and Planning
- “ Noise
- “ Population and Housing
- “ Public Services and Recreation
- “ Traffic and Transportation
- “ Utilities and Service Systems

4. Draft EIR Availability

As required by State Law, this Draft EIR will be available for review by the public and interested parties, agencies, and organizations for a 45-day period. The Draft EIR may be reviewed at the City of Vacaville’s Community Development Department located at 650 Merchant Street; at the Ulatis Library at 1020 Ulatis Drive; and Downtown Vacaville Library at 1 Town Square Place.

It is also available for downloading from the City of Vacaville website at:
<http://www.cityofvacaville.com>

5. Draft EIR Comments

This Draft EIR was published on July 10 2012, which marks the start of the 45-day comment period as required under CEQA. Written comments should be received no later than 5 p.m. on August 23, 2012 and should be sent to:

Fred Buder, City Planner
City of Vacaville
Community Development Department
650 Merchant Street
Vacaville, CA 94688
Phone: (707) 449-5140 Email: FBuder@cityofvacaville.com

Verbal comments can be made at the Public Hearing (see below).

Comments should focus on the environmental impacts and the adequacy of the EIR. Section 15151 of the State *CEQA Guidelines* defines the standards for EIR adequacy as follows:

An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR would summarize the main points of disagreement among the experts. The courts have looked not for perfection; but for adequacy, completeness, and a good faith effort at full disclosure.

6. Public Hearing

A Public Hearing on the Draft EIR where additional comments will be received, is planned for **August 21, 2012, at 7 pm** at the regular meeting of the Vacaville Planning Commission:

City Council Chambers
Vacaville City Hall
650 Merchant Street
Vacaville, CA 94688

7. Final EIR and Responses to Comments

All comments received within the comment period and pertaining to the environmental impacts and adequacy of the Draft EIR, will be responded to in writing. Comments on the Specific Plan merits, or unsubstantiated comments, do not require a response. Responses, together with comment letters, emails, and a hearing transcript summary, will be included in the Final EIR, along with any necessary revisions to the contents of the Draft EIR. The Final EIR will be available for public review prior to consideration of its certification by the City of Vacaville City Council.

8. Final EIR Approval and Specific Plan Approval

When the City Council considers the FEIR, it will also consider the Specific Plan and all other project components (e.g. Development Agreement, Tentative Map, etc.) itself, which may be approved or denied. If the Project is approved, the City Council may require mitigation measures specified in this EIR as conditions of Project approval. Alternatively, they could require other mitigation measures deemed to be effective mitigations for the identified impacts, or it could find that the mitigation measures cannot be feasibly implemented. For any identified significant impacts for which no mitigation measure is feasible, the City Council will be required to adopt a finding that the impacts are considered acceptable because specific overriding considerations indicate that the Specific Plan's benefits outweigh the impacts in question.

D. Report Organization

This report is organized into the following chapters:

- “ **Chapter 1:** Introduction provides an introduction and overview of the document.
- “ **Chapter 2:** Report Summary provides a synopsis of the environmental impacts from the Specific Plan, describes recommended mitigation measures, and indicates the level of significance of impacts before and after mitigation.
- “ **Chapter 3:** Project Description describes the Specific Plan in detail, including the Specific Plan area, surrounding uses, Specific Plan characteristics, and required permits and approvals.
- “ **Chapter 4:** Environmental Evaluation provides an analysis of the potential environmental impacts of the Specific Plan and presents recommended mitigation measures to reduce their significance, as necessary.
- “ **Chapter 5:** Alternatives to the Specific Plan considers three alternatives to the proposed project, including the CEQA-required “No Project Alternative.”

- “ **Chapter 6:** CEQA-Required Assessment Conclusions briefly explains the relationship of the Specific Plan to other environmental issues included under CEQA’s purview.
- “ **Chapter 7:** Report Preparation identifies the preparers of the Draft EIR.

2 REPORT SUMMARY

This summary presents an overview of the proposed Brighton Landing Specific Plan (Specific Plan) and conclusions of the analysis contained in Chapter 4, Environmental Evaluation. The chapter also summarizes areas of controversy and alternatives to the Specific Plan. For a complete description of the Specific Plan, please consult Chapter 3, Project Description. More information on Specific Plan alternatives can be found in Chapter 5.

A. Proposed Specific Plan

This Draft EIR provides an assessment of the potential environmental impacts of implementing the Specific Plan. Phillippi Engineering prepared the Brighton Landing Specific Plan in November 2011 to guide future development on the approximately 217-acre Specific Plan area east of Leisure Town Road. The Specific Plan area is generally bounded by Leisure Town Road to the west, Elmira Road to the north, Pacific Gas and Electric (PG&E) towers to the east, and agricultural land to the south.

The Specific Plan envisions a single-family residential neighborhood on the site, with some supporting uses such as a private high school, a public elementary school, public open space, and an off-site detention basin. In addition to describing the proposed physical development, the Specific Plan also contains goals, policies, and programs relating to land use; transportation and circulation; recreation, open space, and resource management; community design; public facilities; and community services and facilities.

The Specific Plan proposes different land uses and construction phasing for each of 17 distinct subareas. Sixteen of the subareas are within the boundaries of the Specific Plan area, while one additional subarea, the intended site for the detention basin, is located nearby on privately-owned land near the southeast corner of the Specific Plan area. The Specific Plan identifies development standards for each of the subareas, including setbacks, open space, density, and building heights.

The primary components of the Specific Plan are a development agreement, a General Plan Amendment, rezoning, and a tentative subdivision map application.

B. Areas of Controversy

The following is a discussion of issues that are likely to be of particular concern to agencies and interested members of the public during the environmental review process. This list does not necessarily identify all areas of controversy, but attempts to capture those that are likely to generate greatest interest based on the input received during the scoping process.

- **Aesthetics.** Vacaville prizes retaining the rural, agricultural character of the surrounding land. New development could impact the visual character of the surrounding land.
- **Agriculture and Forestry Resources.**
- **Biological Resources.** One comment expressed concern that Specific Plan-related construction and development would lead to the removal of valley oaks, which are classified as heritage trees.¹
- **Greenhouse Gas Emissions.**
- **Population and Housing.**
- **Traffic.**
- **Hydrology and Water Quality.** One comment noted that the Specific Plan area is near a seasonally-flooding creek. The comment raised concerns that proposed drainage and detention basin plans would be inadequate to address typical area flood events.
- **Noise.** The increase in vehicle trips associated with the Specific Plan would be accompanied by an increase in vehicle/traffic-related noise lev-

¹ City of Vacaville Public Works Department, "Tree Maintenance," http://www.ci.vacaville.ca.us/departments/public_works/maint_tree.php?#, accessed on January 18, 2012.

els. One comment described existing traffic-related noise as an issue and was concerned about the Specific Plan leading to increased traffic-related noise.

- “ **Population and Housing.** Buildout of the Specific Plan could result in up to 769 detached single family homes, several comments stressed, many existing single family homes in Vacaville are vacant and/or in the process of foreclosure, and questioned if development under the Specific Plan would be financially viable.
- “ **Public Services and Recreation.** Some comments noted that the Specific Plan envisions two new schools, while existing schools are being closed due to lack of demand.
- “ **Traffic and Transportation.** The Specific Plan would result in new vehicle trips within the Specific Plan area and in surrounding areas, which has the potential to impact operations at intersections and along roadway segments. Some comments raised concerns about exacerbating already existing congestion.

C. Summary of Impacts and Mitigation Measures

Under CEQA Section 15064, a significant impact on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the Specific Plan, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance. CEQA allows environmental issues for which there is no likelihood of a significant impact to be “scoped out” during the EIR scoping process, and not analyzed further in the EIR. The Specific Plan would have no impact on mineral or recreational resources due to existing conditions in the Specific Plan area and surrounding areas. These issues have therefore not been analyzed further in this Draft EIR.

Table 2-1 presents a summary of impacts and mitigation measures identified in this report. It is organized to correspond with the environmental issues

discussed in Chapter 4. The table is arranged in four columns: 1) environmental impacts, 2) significance prior to mitigation, 3) mitigation measures, and 4) significance after mitigation. For a complete description of potential impacts and suggested mitigation measures, please refer to the specific discussions in Chapter 4.

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
AESTHETICS			
AES-1: The visual character of the site would be substantially altered.	S	<u>AES-1:</u> There are no available mitigation measures.	SU
AES-2: The visual character of the surrounding area would be substantially altered.	S	<u>AES-1:</u> There are no available mitigation measures.	SU
AES-3: Development under the Specific Plan would have a substantial adverse effect on a scenic vista.	S	<u>AES-3:</u> There are no available mitigation measures.	SU
AES-4: Development under the Specific Plan may expose people to substantial light or glare and impact nighttime views.	S	<u>AES-4:</u> The Specific Plan shall incorporate design standards to ensure that the: <ol style="list-style-type: none"> a. Exterior lighting (for example on parking lots, schools, or commercial buildings) is angled downwards to preclude or minimize to the maximum extent practicable the glare observed by viewers on the ground; b. Reflectivity of materials used is not greater than the reflectivity of standard materials used in residential and commercial developments. c. A lighting plan shall be prepared that meets requirements of GP and Muni Code to minimize impacts to the extent feasible and includes operational plans for non-residential uses that restrict late night lighting. d. Compliance with this mitigation measure shall be determined by the City of Vacaville during the design review process. Applications for Design Review shall include design of light fixtures to demonstrate compliance with this standard. 	LTS
AES-CUM-1: Views of hills, looking south and southwest over the Specific Plan area would be obstructed by the Brighton Landing Project together with the Southtown Commons (an approved project).	S	<u>AES-CUM-1:</u> There are no available mitigation measures.	SU

S = Significant; LTS = Less Than Significant; SU = Significant and Unavoidable

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
AES-CUM-2: Views of hills, looking south and southwest over the Specific Plan area would be obstructed by the Brighton Landing Project together with other land to the south and southwest that would be developed under the existing 1990 General Plan.	S	AES-CUM-2: There are no available mitigation measures.	SU
AGRICULTURE AND FORESTRY RESOURCES			
AGRI-1: Development under the Specific Plan would convert Prime and Unique Farmlands to non-agricultural use.	S	AGRI-1: A total of 254.54 acres of agricultural land that is viable for farming operations would be purchased and preserved. The area represents the sum of the area of the agricultural buffer outside of the Specific Plan area (12.69 + 7.04 acres), the detention basin (17.6 acres), and the entire Specific Plan area (217.21 acres, including residential parcels). This land would be near the Urban Growth Boundary and in Solano County. This would satisfy the 1990 General Plan policy that the City shall require development in the Specific Plan area “to mitigate its impact on agricultural and open space lands by preserving, to the extent consistent with applicable law, for each acre of land developed, at least one acre of land outside the Growth Boundary but within Pleasants Valley, Upper Lagoon Valley, or Vaca Valley, or any other location that is within 1 mile of the Growth Boundary. Alternatively, to the extent consistent with applicable law, such development may pay an equivalent in-lieu fee as determined by City in consultation with the Solano Land Trust. Lands acquired directly or with fees collected pursuant to this requirement shall first be offered to the Solano Land Trust. Any such fees transferred to the Solano Land Trust may only be used to acquire or protect lands outside of the Growth Boundary but within 1 mile of the Growth Boundary, or within Pleasants Valley, Upper Lagoon Valley, or Vaca Valley. Acquisitions pursuant to this requirement shall be coordinated with the Solano Land Trust.”	SU

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
AGRI-2: The Specific Plan would allow development which would change the existing environment from farmland to non-agricultural use.	S	<u>AGRI-2a:</u> See Mitigation Measure AGRI-1. <hr/> <u>AGRI-2b:</u> <ul style="list-style-type: none"> “ At the time of final map for a housing unit within 80 feet of the southern border of the Specific Plan area, if a development application has not been submitted for the land adjacent to the southern border of the Specific Plan area, then the applicant shall record a disclosure against such housing unit disclosing that agricultural operations occur to the south of the home and that agricultural operations may involve activities involving, among other things, noise, dust, and odors, that a resident may consider to be offensive. The disclosure shall also identify a point of contact such as a Brighton Landing homeowners’ association for any complaints related to agricultural operations. “ Fencing along the southern edge of the Specific Plan Area shall be designed to prevent people and pets from trespassing onto the farmland to the south. “ Landscaped areas include trees with large spreading canopies shall be included in project design. “ Playgrounds or other facilities within the linear park along the southern edge that would place people in the linear park for long periods of time, shall be prohibited. 	SU
AGRI-CUM-1: The Specific Plan, together with approved projects, would allow development which would change the existing environment from farmland to non-agricultural uses.	S	<u>AGRI-CUM-1:</u> See Mitigation Measure AGRI-1.	SU
AGRI-CUM-2: The Specific Plan, together with development under the 1990 General Plan, would allow development which would change the existing environment from farmland to non-agricultural uses.	S	<u>AGRI-CUM-2:</u> See Mitigation Measure AGRI-1.	SU

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
AIR QUALITY			
<p>AQ-1: The effects of construction activities would be increased dust fall and locally elevated levels of PM₁₀ downwind of construction activity. Construction dust would be generated at levels that would create an annoyance to nearby properties.</p> <p>Implementation of the following mitigation measures would eliminate or offset proposed project emissions from construction impacts.</p>	S	<p>AQ-1: The applicant shall submit a construction plan for the project which includes the following conditions:</p> <ul style="list-style-type: none"> • Water all active construction sites at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure. • Haul trucks shall maintain at least 2 feet of freeboard, • 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. • Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days). • Plant vegetative ground cover in disturbed areas as soon as possible. • Cover inactive storage piles. • Sweep streets if visible soil material is carried out from the construction site. 	LTS
<p>AQ-2: Proposed project emissions from operation shown in Table 4.3-7 would exceed the threshold for NO_x, ROG, and PM₁₀; therefore, the proposed project would have a significant effect on regional air quality. It should also be noted that individual projects that have a significant effect on regional air quality also have a significant cumulative effect on regional air quality.</p>	S	<p>AQ-2: The Brighton Landing Specific Plan shall incorporate the following measures to reduce emissions associated with vehicle trip generation and area source emissions from the project:</p> <ul style="list-style-type: none"> • Provide transit facilities (e.g. bus bulbs/turnouts, benches, shelters). • Provide bicycle lanes and/or paths, connected to community-wide network. • Where feasible, provide sidewalks and/or paths, connected to 	SU

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		adjacent land uses, transit stops, and the existing community-wide trail network. " The Specific Plan shall be modified to include bicycle parking standards as follows: Y For residential development, one, sheltered, secure bicycle parking space per dwelling unit shall be required. Garages, storage sheds, utility rooms, or similar areas that can be secured from unauthorized access and are sheltered from sun and rain would satisfy this requirement without the addition of special improvements or racks. Additional convenience bicycle parking may be provided with exterior racks but does not count toward the sheltered bicycle parking requirement. Y New parking areas created to serve nonresidential uses should provide one bicycle parking space for every 20 vehicle parking spaces, with a minimum of four bicycle spaces. Y For all school developments, secured bicycle parking shall be provided at a minimum rate of 10 percent of the student capacity plus 3 percent of the maximum number of employees. " All wood burning devices shall be prohibited in residential units.	
AQ-3: The Specific Plan would result in considerable increases to non-attainment pollutants individually, which indicates that it would also result in cumulative increases.	S	AQ-3: The same mitigations as described in Mitigation Measure AQ-2 would be applicable here.	SU
AQ-CUM-1: See Impact AQ-2.	S	AQ-CUM-1: See Mitigation Measure AQ-2.	SU

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
BIOLOGICAL RESOURCES			
<p>BIO-1: The proposed widening of Elmira Road would not directly result in removal of any of the identified elderberry along Alamo Creek, although at least one bush will be adjacent to planned work areas. Additional elderberry plants may be directly impacted by activities required to armor the stream banks at the Frost Drain outfall into Old Alamo Creek and through potentially increased downstream erosion from future stormwater discharges (see Hydrology and Water Quality, Section 4.9, Impact HYDRO-4). In addition, the loss of dispersal and foraging riparian habitat along Old Alamo Creek in and downstream of the Specific Plan Area could result in significant adverse effects to the Valley elderberry longhorn beetle. If this portion of the Jepson Parkway Project is built prior to construction of the Brighton Landing Specific Plan, mitigating impacts to the Valley elderberry beetle within the section of creek between Leisure Town Road and Elmira Road will be the responsibility of STA. If the creek channel in this segment or downstream of the Specific Plan Area is impacted as a result of actions for the Brighton Landing Specific Plan, including actions associated with stormwater discharge, the following measures shall be required:</p>	S	<p>BIO-1a: The applicant shall survey Old Alamo Creek, including the Frost Drain outfall, for elderberry bushes and shall replace all impacted Valley elderberry longhorn beetle habitat by employing the following measures, adapted from the Biological Opinion for the Jepson Parkway project:</p> <ul style="list-style-type: none"> “ Transplant all elderberry shrubs within the affected reach of Old Alamo Creek to other suitable areas, including along Old Alamo Creek; within the 100-foot buffer beside the Riparian Area as mentioned in Mitigation Measures BIO-2b, 10b and 10c; or at other locations approved by the USFWS. Transplanting shall occur between June 15 and March 15 (November through February is the optimal period for transplanting). Elderberry may not be transplanted between March 16 and June 14, except where isolated bushes are located more than 0.5 miles from other suitable Valley elderberry longhorn beetle habitat and only if no signs of use by beetles (exit holes) have been identified. “ Plant a minimum of five elderberry seedlings or rooted cuttings, and five associated native, woody riparian plants for each elderberry bush removed/transplanted as a result of Specific Plan implementation. “ Trimming/removal of stems one-inch or greater shall be mitigated in the following manner: for every ten elderberry stems one-inch or greater in diameter trimmed/removed, plant two elderberry seedlings and two native, associated woody riparian plant seedlings. “ A permanent buffer of 100 feet shall be established between the 	LTS

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		<p>riparian canopy of Old Alamo Creek and the development proposed at Brighton Landing.</p> <p>If specific traffic improvements or other construction activities for the Brighton Landing Specific Plan require work along Old Alamo Creek within 100 feet of any additional elderberry plans, the following additional avoidance and minimization measures shall be implemented:</p> <ol style="list-style-type: none"> 1. A minimum setback of 20 feet from the dripline of the elderberry plant shall be established between the development and all elderberry plants containing stems measuring one inch or greater in diameter at ground level. The setback shall be fenced and flagged in order to prevent encroachment of equipment and materials. If ground-disturbing work must encroach within this 20-foot setback to place critical infrastructure that cannot be located elsewhere, four additional elderberry trees for each affected elderberry shall be planted within the channel restoration area or at a nearby location on Old Alamo Creek. 2. All contractors shall be briefed on the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements. Work crews shall be instructed on the status of the beetle and the need to protect its elderberry host plant. 3. Signs shall be placed every 50 feet along the edge of the 20-foot setback with the following information: "This area is habitat of the Valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act. Violators are subject to prosecution, fines, and imprisonment." The signs shall be clearly readable from a distance of 20 feet, and must be maintained for the duration of construction. 	

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
BIO-2: The Specific Plan would significantly impact western pond turtles by harming them during construction should they move into the construction area, by removing potential breeding habitat beside the riparian area after construction, and by reducing their ability to move between upstream and downstream segments of Old Alamo Creek.	S	<p>4. Following completion of construction work affecting the 100-foot buffer zone, any damage done to the buffer zone shall be restored with native erosion control seed mixes and native riparian plant species, as appropriate.</p> <p>5. The 100-foot buffer zones must continue to be protected after construction from adverse effects of the development project. Protection measures such as fencing and signage shall be included in the project plans and subject to the approval of the City of Vacaville.</p> <p>6. No insecticides, herbicides, fertilizers, or other chemicals that might harm the beetle or its host plant shall be used within 100 feet of any elderberry plant with one or more stems measuring one inch or greater in diameter at ground level.</p> <p>7. A qualified Biologist shall be retained to monitor implementation and compliance of all the above measures.</p> <p>BIO-2a: If the Brighton Landing project is constructed prior to the Jepson Parkway project, exclusion fencing shall be installed and maintained between Specific Plan work areas and the riparian area during all work activities to prevent western pond turtles and other animals from entering the construction area. Exclusion fencing shall consist of silt fabric, plywood, aluminum or another material approved by USFWS and/or CDFG; shall be at least 3 feet in height; and shall extend a minimum of 200 feet beyond the creek on either side of work areas. The base of the fence shall be buried in the ground to prevent animals from crawling under. The remainder of the fence shall be left above ground to serve as a barrier for animals moving on the ground surface. The fence shall</p>	LTS

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		<p>be pulled taut at each support to prevent folds or snags. Construction personnel shall also install an orange plastic-mesh construction fence 1 foot on the development side of the exclusion fence to increase visibility, unless the exclusion fence is composed on highly visible materials. Exclusion fencing shall be inspected and repaired on a weekly basis during construction work. If the Jepson Parkway project is constructed prior to the Brighton Landing Project and the Old Alamo Creek Channel is not relocated within Subarea O, Mitigation Measure BIO-2a is not applicable.</p> <hr/> <p><u>BIO-2b</u>: The loss of riparian and stream habitat for the western pond turtle in relation to the Brighton Landing Project can be mitigated by providing riparian and creek habitat at an alternative offsite location where western pond turtles are present (see Mitigation BIO-10a).</p> <hr/> <p><u>BIO-2c</u>: If the Brighton Landing project is constructed prior to the Jepson Parkway project, maintain a 100-foot buffer between the canopy of riparian vegetation and the edge of proposed residential or commercial development. This buffer area shall be available as breeding habitat for western pond turtles. If the Jepson Parkway is constructed prior to the Brighton Landing Project and the Old Alamo Creek Channel is not relocated within Subarea O, Mitigation Measure BIO-2c is not applicable.</p>	
<p>BIO-3: The Specific Plan could significantly impact foraging habitat and nesting of the Modesto population of the song sparrow and yellow warblers due to construction activity and removal of habitat adjacent to the riparian vegetation.</p>	<p>S</p>	<p><u>BIO-3a</u>: Mitigation Measures BIO-2c and BIO-10a through 10c adequately mitigate impacts to the foraging and nesting habitat of the Modesto population of the song sparrow and yellow warbler.</p> <p><u>BIO-3b</u>: Construction activities within 50 feet of the riparian area should be avoided during the nesting season (March 1 to August 31) or alternatively, for any construction activities conducted during the nesting season, a qualified biologist (i.e., experienced in searching for passerine nests) shall conduct a preconstruction nest survey of all trees or other suitable nesting habitat in and within</p>	<p>LTS</p>

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
<p>BIO-4: Swainson’s hawks would be significantly impacted by a loss of approximately 228.59 acres of foraging habitat, loss of potential nest trees in the developed area and along Old Alamo Creek, and potential destruction of nests, eggs, and nestlings.</p>	S	<p>50 feet of the limits of work. The survey shall be conducted no more than 15 days prior to the start of work. If the survey indicates the presence of nesting birds, the biologist shall determine an appropriately sized buffer around the nest in which no work shall be allowed until the young have successfully fledged. The size of the nest buffer shall be determined by the biologist in consultation with CDFG and shall be based on its sensitivity to disturbance. In general, buffer sizes of up to 50 feet for song sparrows and warblers should suffice to prevent substantial disturbance to nesting birds, but these buffers may be increased or decreased, as appropriate, depending on the level of disturbance anticipated near the nest and the sensitivity of the birds to construction activity.</p> <p><u>BIO-4a:</u> An Approved Biologist shall conduct pre-construction nest surveys between March 1 and August 31 to identify any nesting Swainson’s hawks. Surveys shall be conducted within 15 days prior to the anticipated start of construction for any phase or Specific Plan component, and shall be designed and of sufficient intensity to document nesting within 0.25 mile (1,320 ft) of planned work activities. If a lapse in Specific Plan-related construction work of 15 days or longer occurs, additional preconstruction surveys shall be required before Specific Plan work may be reinitiated.</p> <p><u>BIO-4b:</u> If a nest is encountered during a pre-construction survey, construction work (including grading, earthmoving, and any operation of construction equipment) shall not occur within a 0.25 mile buffer zone around an active Swainson's hawk nest, except as provided below. Construction work may commence within the buffer zone when an Approved Biologist has confirmed that nesting activity is complete (i.e., Swainson’s hawk young have fledged and are capable of flight, or the adults have abandoned the nest for</p>	LTS

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		<p>a minimum of seven days). Nest trees may be removed between September 1 and February 1, when nests are unoccupied. Removal of a previously active, but currently unoccupied nest may require a 2081 Take Permit from the CDFG.</p> <p>The size of nest site buffer zones may be reduced only under the following conditions:</p> <ol style="list-style-type: none"> 1. A site-specific analysis prepared by an CDFG Approved Biologist indicates that the nesting pair under consideration would not be adversely affected by construction activities. CDFG shall be provided the option of approving this analysis before construction may begin within 0.25 mile of a nest. 2. Monitoring by a CDFG Approved Biologist is conducted for a sufficient time (minimum of 10 consecutive days following the initiation of construction) and the nesting pair does not exhibit adverse reaction to construction activities (i.e., changes in behavioral patterns, reactions to construction noise). 3. Monitoring is continued at least once a week through the nesting cycle at that nest. 4. Monitoring reports are submitted to the City of Vacaville and CDFG (or the Solano County Water Agency if the Solano HCP is approved by the time of construction). <p>If adverse effects are identified (e.g., the adults or juvenile birds react to construction activities), construction activities shall cease immediately and construction shall not be resumed until the Approved Biologist, in consultation with CDFG, has determined that nesting activity is complete or that construction may continue under modified restrictions.</p>	

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		<p>BIO-4c: If a nest tree becomes occupied by Swainson’s hawks during ongoing construction activities, construction activities shall not occur within 500 feet of the nest, except where monitoring consistent with the criteria in Mitigation Measure 4b documents that adverse effects will not occur.</p>	
		<p>BIO-4d: The Specific Plan proponent shall preserve a minimum of 229 acres of Swainson’s hawk irrigated agricultural foraging habitat. The preservation of the mitigation area shall be accomplished through purchase of credits from a CDFG approved mitigation bank or through preservation of irrigated agricultural lands protected in perpetuity by a conservation easement. Such an easement will need to include provisions that would provide for agricultural uses that are compatible with Swainson’s hawk foraging needs. Agricultural foraging habitats consist of alfalfa, tomatoes, other annual vegetable row crops, and grain. The mitigation area shall not include crop types and land uses incompatible with Swainson’s hawk foraging. The following additional restrictions and prohibited uses, at a minimum, shall also be noted as forbidden within the conservation easement:</p> <ul style="list-style-type: none"> “ Commercial feedlots, which are defined as any open or enclosed area where domestic livestock are grouped together for intensive feeding purposes. “ Horticultural specialties, including sod, nursery stock, ornamental shrubs, ornamental trees, Christmas trees, or flowers. “ Commercial greenhouses or plant nurseries. “ Commercial aquaculture of aquatic plants, animals, and their byproducts. 	

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		<ul style="list-style-type: none"> • Planting orchards or vineyards for the production of fruits, nuts, or berries except in designated farmstead areas. • Cultivation of perennial vegetable crops such as artichokes and asparagus, as well as annual crops such as cotton or rice. • Construction, reconstruction, or placement of any building, billboard or sign, antennas, towers, and facilities for generation of electrical power, or any other structure or improvement of any kind, except as may be specifically permitted in site-specific management plan. Acreage occupied by any such existing facilities may not be counted toward mitigation requirements. <p>CDFG shall approve the site, conservation easement, and conservation easement holder. The agricultural buffer area along the eastern portion of the site does not provide appropriate mitigation habitat because: it is too close to urban development; it would allow uses such as alternative energy facilities that are not compatible with hawk foraging; and because the PG&E easement would preclude or complicate a conservation easement over the same property.</p> <hr/> <p><u>BIO-4e:</u> Specific Plan activities resulting in the destruction or removal of a known or active Swainson’s hawk nest site shall preserve an active nest site, in the removed nest’s stead. Preservation of an active nest site may be achieved through purchase of occupied nest credits from an approved mitigation bank or through a Specific Plan-specific reserve approved by CDFG. If preserved active nest sites are unavailable, Specific Plan proponents shall provide funding to the Solano HCP’s <i>Interim Nest Protection Program</i>.</p> <p>Take of a known or active nest tree would occur if:</p> <ol style="list-style-type: none"> 1. The activity directly removes the nest tree or involves soil 	

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		<p>compaction or grading (excavation or fill) on soils covering more than 25 percent of the root zone of the nest tree. The root zone may be determined by a qualified arborist, but shall (at a minimum) include all areas within a distance from the trunk that is equal to the tree's height or within the outer edge of the tree's canopy.</p> <p>2. The Specific Plan activity indirectly affects the nest such that when active, Swainson's hawks are disturbed to a degree that causes, or is likely to cause: injury to the nesting birds; a decrease in productivity by substantially interfering with normal breeding, feeding, or sheltering behavior; or nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior. Activities within 250 feet of an active nest are presumed to have a long-term indirect effect the nest.</p> <p>If the Approved Biologist determines that the Specific Plan potentially indirectly affects a nest, the Specific Plan proponent shall obtain any necessary authorizations, such as a 2081 Incidental take Permit from CDFG, and implement any required additional mitigation as required by CDFG. Such measures may include protection of other known nest sites or potential nesting habitat; planting and protection of trees to create suitable future nesting habitat; or otherwise increasing the amount of preserved foraging habitat.</p>	

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
<p>BIO-5: Burrowing owls would be significantly impacted by: a loss of 228.59 acres of foraging habitat; loss of potential nesting habitat; and potential destruction of eggs, nestlings, and nesting adult burrowing owls.</p>	S	<p>BIO-5a: Between February 1 and August 31, an Approved Biologist shall conduct preconstruction surveys within known or suitable habitat areas to identify and subsequently avoid nesting areas for burrowing owls. Surveys shall be conducted within 15 days prior to the anticipated start of construction, and shall follow standard survey protocols developed by the Burrowing Owl Consortium or as contained in the most current draft of the Solano HCP. If a lapse in Specific Plan related construction work of 15 days or longer occurs during the nesting season, additional preconstruction surveys shall be required before Specific Plan work may be reinitiated.</p> <p>BIO-5b: If burrowing owls are identified on the site during preconstruction surveys, the following measures shall be implemented for new construction activities.</p> <ol style="list-style-type: none"> 1. During the non-breeding season (September 1–January 31), a circular exclusion zone with a radius of 160 feet shall be established around occupied burrows. If a buffer cannot be established (except as provided below) and upon approval from CDFG, burrowing owls shall be evicted from the entire construction area using passive relocation techniques. One-way doors shall be installed in all suitable burrows, left in place for a minimum of 48 hours, and monitored daily to evaluate owl exclusion and to ensure doors are functioning properly. Burrows shall then be excavated, using hand tools whenever possible, and refilled to prevent reoccupation. Sections of flexible plastic pipe shall be inserted into burrows during excavation to maintain an escape route for any animals inside the burrow. 2. During the breeding season (February 1–August 31), a qualified burrowing owl biologist shall establish a circular exclusion zone with a radius of 250 feet around each occupied burrow. 	LTS

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		<p>No construction-related activity (e.g., site grading, staking, surveying, or any use of construction equipment) shall occur within the exclusion zone during the breeding season. Once the breeding season is over, passive relocation may proceed as described in No. 1 above.</p> <p>3. Construction buffers may be reduced from 250 feet for breeding season buffers and 160 feet for non-breeding season buffers in accordance with the following requirements:</p> <ul style="list-style-type: none"> a. A site-specific analysis prepared by an Approved Biologist indicates that the nesting pair(s) or wintering owl(s) would not be adversely affected by construction activities. The City of Vacaville and the CDFG shall approve this analysis in writing before construction can proceed; b. Monitoring by an Approved Biologist is conducted for a sufficient time (minimum of 10 consecutive days following the initiation of construction) and the nesting pair does not exhibit adverse reaction to construction activities (e.g., changes in behavioral patterns, reactions to noise) and the burrows are not in danger of collapse due to equipment traffic; c. Monitoring is continued at least once a week through the nesting/wintering cycle at that site and no change in behavior by the owls is observed; and d. Monitoring reports are submitted to the City of Vacaville and CDFG. 	

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		<p>If adverse effects are identified, construction activities shall cease immediately and construction shall not be resumed until the Approved Biologist, in consultation with the City of Vacaville and CDFG, has determined that nesting activity is complete or that construction may continue under modified restrictions.</p>	
		<p><u>BIO-5c</u>: Mitigation for the permanent loss of 228.59 acres of burrowing owl habitat for urban development or other permanent facilities shall be provided at a 1:1 land/area ratio. This measure may be accomplished in conjunction with Swainson's hawk Mitigation BIO-4d, above, provided the following additional measures are implemented.</p> <ul style="list-style-type: none"> • At least 5 acres of mitigation area shall be permanently taken out of agricultural production to provide suitable nesting habitat and cover for burrowing owls. • At least four artificial burrow complexes (three multi-entrance burrows per complex) shall be installed within the habitat set aside for burrowing owls. • Vegetation within the owl habitat shall maintain an average effective vegetation height less than or equal to 6 inches from February 1 to April 15, when owls typically select mates and nest burrows. In addition, tree and shrub canopy cover shall be limited to the edges of the set aside area and shall not be within 200 feet of the artificial burrows. • Adequate funding shall be provided to manage the owl mitigation area, including maintenance of the artificial burrows and grass height, in perpetuity. 	

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
<p>BIO-6: Tricolored blackbirds and loggerhead shrikes would be significantly impacted by: a loss of approximately 228.59 acres of foraging habitat; loss of potential nesting habitat; and potential destruction of eggs and nestlings.</p>	S	<p>BIO-6a: An Approved Biologist shall conduct preconstruction nest surveys between March 1 and August 31 to identify any nesting tricolored blackbirds and loggerhead shrikes. Surveys shall be conducted within 15 days prior to the anticipated start of construction. If a lapse in Specific Plan related construction work of 15 days or longer occurs, additional preconstruction surveys shall be required before Specific Plan work may be reinitiated.</p> <hr/> <p>BIO-6b: If nests are encountered during a preconstruction survey, construction work (including grading, earthmoving, and any operation of construction equipment) shall not occur within a 150-foot buffer zone around an active tricolored blackbird colony and a 50-foot buffer around a loggerhead shrike nest, except as provided below. Construction work may resume within the buffer zone when an Approved Biologist has confirmed that nesting activity is complete (i.e., the young have fledged and are capable of flight, or the adults have abandoned the nest for a minimum of seven days). The size of nest site buffer zones may be reduced only under the following conditions:</p> <ol style="list-style-type: none"> 1. A site-specific analysis prepared by an Approved Biologist indicates that the nesting pair under consideration would not be adversely affected by construction activities. Construction within a nest buffer zone shall be subject to approval from the City of Vacaville and CDFG before any construction activity within 50 feet of a nest. 2. Monitoring by an Approved Biologist is conducted for a sufficient time (minimum of five consecutive days following the initiation of construction) and the nesting pair does not exhibit adverse reaction to construction activities (i.e., changes in behavioral patterns, reactions to construction noise). 	LTS

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		<p>3. Monitoring is continued at least once a week through the nesting cycle at that nest.</p> <p>4. Monitoring reports are submitted to the City of Vacaville and CDFG.</p> <p>If adverse effects are identified, construction activities shall cease immediately and construction shall not be resumed until the Approved Biologist, in consultation with CDFG, has determined that nesting activity is complete or that construction may continue under modified restrictions.</p> <hr/> <p><u>BIO-6c</u>: Mitigation Measures BIO-4d for Swainson’s hawk and Mitigation Measure BIO-5c for burrowing owl, in conjunction with the following, shall mitigate loss of nesting habitat for loggerhead shrikes. Twenty-five native shrubs shall be established on the Swainson’s hawk and/or burrowing owl foraging habitat to provide nesting substrate for loggerhead shrikes.</p> <hr/> <p><u>BIO-6d</u>: In the unlikely event that an occupied tricolored blackbird colony is impacted, the Specific Plan proponent shall preserve a known colony (one that has been active within the last five years) within Solano County, through purchase of a conservation easement. If the Specific Plan proponent cannot practicably obtain a conservation easement for a known colony, the Specific Plan proponent shall evaluate the potential to establish tricolored blackbird nesting habitat in the detention basin and, if practicable, shall develop and implement a plan approved by both the City and CDFG.</p>	
<p>BIO-7: Yellow-headed blackbird, short-eared owl, and northern harrier would be significantly impacted by a loss of 229 acres of foraging habitat in nearby agricultural fields.</p>	S	<p><u>BIO-7</u>: Mitigation Measures BIO-4d for Swainson’s hawk and Mitigation Measure BIO-5c for burrowing owl serve to mitigate loss of nesting habitat of yellow-headed blackbird, short-eared owl, and northern harrier.</p>	LTS

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
<p>BIO-8: The proposed Specific Plan could significantly impact roosting habitat of pallid bat and western Townsend’s big-eared bat, and bats would potentially be harmed by the removal process.</p>	S	<p><u>BIO-8a:</u> An Approved Biologist shall conduct preconstruction roost surveys between March 1 and August 31 to identify any roosting bats. Surveys shall be conducted within 30 days prior to the anticipated removal of habitat.</p>	LTS
		<p><u>BIO-8b:</u> If a maternity roost is encountered during a preconstruction survey, demolition of the roost shall wait until September 15, when the young can live independently of the adults. Prior to demolition, the bats shall be excluded by an experienced expert. If the roost is not a maternity roost, then the bats shall be excluded from the roost by the certified expert prior to demolition.</p>	
		<p><u>BIO-8c:</u> A bat roost shall be created within 5 miles of the Specific Plan area. A conservation easement shall be placed on the mitigation bat roost to ensure that it is not destroyed. The bat roost shall be monitored until it can be demonstrated that bats have used the mitigation roost for 3 years in a row. An endowment of sufficient value shall be established to provide for ongoing maintenance of the bat roost. The City of Vacaville shall approve the size of the endowment.</p>	
<p>BIO-9: Implementation of the proposed Brighton Landing Specific Plan would result in the colonization of habitat of special-status species by invasive species of plants and animals, which would be a significant impact.</p>	S	<p><u>BIO-9a:</u> The species listed in the Table 4.4-5 are particularly invasive ornamental plants and shall be prohibited from being planted in open space areas, parks, public landscaping in street rights-of-way, or on the future private school site, within the Specific Plan area. These restrictions shall be incorporated into the Specific Plan development standards. Prior to approval of final landscape plans, the plant palette for any Developer-implemented landscaping shall be reviewed by a biologist to ensure that the species in Table 4.4-5 and species listed in the California Invasive Plant Council’s Invasive Plant Inventory are not included in the landscaping for the site.</p>	LTS

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
<p>BIO-10: The Specific Plan would result in significant impacts to Old Alamo Creek and its riparian habitat by reducing the width of the adjacent buffer, increasing run-off and erosion, increasing the deposition of pollutants and sediment, and harming or removing riparian trees and shrubs. As described in Section 4.9, Hydrology and Water Quality, increased run-off generated from the urban land uses proposed by the Specific Plan could cause an increase in discharge of pollutants and erosion or siltation downstream of the Specific Plan area.</p>	S	<p><u>BIO-9b:</u> The detention basin shall be designed to minimize the breeding and expansion of non-native species, such as bullfrog and warm-water fish, which require year-round water. The basin shall be managed such that a permanent pool is not created, and the basin dries out each year.</p> <p><u>BIO-10a:</u> The Applicant shall develop plans to enhance remaining portions of Old Alamo Creek or other approved offsite location to mitigate both the loss of riparian habitat from the widening of Elmira Road and any additional impacts associated with the storm drain outfall to the creek east of the Specific Plan Area. At a minimum, 0.18 acres of riparian habitat (a 4:1 ratio relative to the loss of 0.045 acres of riparian habitat) shall be enhanced through planting of desirable native species and removal of exotic vegetation. All affected riparian tree and shrub species shall also be re-established at a 4:1 ratio; that is at the end of a minimum 5-year monitoring period and after 2 years of no significant intervention (e.g., additional planting or irrigation), four times the affected number of trees and shrubs shall be established in good condition within the restoration area. This may require initial plantings at a higher than 4:1 ratio. The location of and plan for riparian restoration and enhancement shall be reviewed and approved by the City and CDFG prior to implementation.</p> <p><u>BIO-10b:</u> Implementation of Mitigation Measure BIO-2c, which establishes building setbacks along Old Alamo Creek in Subarea O mitigates impacts associated with urban encroachment and will help promote continued biological connectivity.</p> <p><u>BIO-10c:</u> Mitigation Measures HYDRO-1, HYDRO-2, and HYDRO-6 shall be implemented and will generally reduce downstream impacts to water quality. The Stormwater Master Plan required under Mitigation Measure HYDRO-6 shall further evaluate the effects on the two-year flow in Old Alamo</p>	LTS

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
<p>BIO-11: Implementation of the proposed Brighton Landing Specific Plan would result in the loss of approximately 0.13 acre of jurisdictional wetland, which would be a <i>significant</i> impact.</p>	S	<p>Creek and downstream riparian vegetation. The two-year flow is typically identified as the channel-forming flow; significant increases in this flow rate can result in channel erosion and loss of riparian vegetation. Stormwater discharge shall be designed to avoid downstream channel impacts.</p> <p>BIO-11a: The Specific Plan proponent shall create an estimated 0.26 acres of seasonal wetland habitat (2:1 ratio). Actual mitigation acreage requirements shall be adjusted and determined based on a revised and Corps-verified wetland delineation, and shall be based on the verified wetland acreage and not just areas subject to Section 404 regulation. Mitigation may be accomplished by (1) on- or off-site creation of new seasonal wetlands at an appropriate mitigation site or (2) purchase of the appropriate number of credits at an agency-approved off-site mitigation bank. A credit purchase agreement or receipt shall be provided prior to approval of the grading plan.</p> <p>If the mitigation is to be accomplished by creating new wetlands on-site (or at an off-site location owned or otherwise controlled by the applicant), the applicant shall prepare and implement a wetland mitigation and monitoring plan (MMP) for approval by regulatory agencies and the City, and which details the mitigation design, the wetland planting design, maintenance and monitoring requirements, reporting requirements, long-term funding for management, and success criteria. Mitigation wetlands shall be monitored for a minimum of five years to verify that the success criteria have been achieved. The MMP shall be approved by the Corps, RWQCB and the City of Vacaville prior to approval of the Final Map.</p>	LTS

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
BIO-12: Implementation of the Specific Plan will impact wetlands, channel and riparian habitats, and habitat for State- and federally-listed threatened species regulated by multiple State and/or federal agencies. Non-compliance with these adopted regulations would constitute a significant impact.	S	<u>BIO-12:</u> The Specific Plan proponent shall provide copies of required permits, or verifiable statement that permits are not required, prior to receiving grading permits or other approvals that would permit land disturbing activities/conversion of habitats or impacts to protected species associated with Specific Plan implementation. Such agencies and permits include: U.S. Army Corps of Engineers (404 permit), Regional Water Quality Control Board (401 certification or WDR), California Department of Fish and Game (1602 Streambed Alteration Agreement, 2081 Individual Take Permit), and U.S. Fish and Wildlife Service (Section 7 Take Authorization).	LTS
BIO-13: Implementation of the Specific Plan could result in significant impacts to nesting birds protected under the federal Migratory Bird Treaty Act and the California Fish and Game Code.	S	<u>BIO-13:</u> To the extent feasible, vegetation removal activities shall occur during the non-nesting season (September 1 to January 31). For any construction activities conducted during the nesting season, Project Applicants are responsible for compliance with the federal Migratory Bird Treaty Act and the California Fish and Game Code. Project applicants shall submit affidavits to the City of Vacaville describing both their obligations and the measures undertaken to comply with these regulations.	LTS
BIO-14: Development of the Brighton Landing Specific Plan would conflict with several Vacaville General Plan policies for preserving creek corridors and riparian vegetation, specifically policies 2.1-G3, 3.5-G3, 3.5-G4, 3.5-I6, 8.1-G1, 8.2-I1, and 8.2-I3.	S	<u>BIO-14:</u> Implement Mitigation Measures BIO-2c, 10-b, and 10-c.	LTS

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
<p>BIO-15: Construction of the Specific Plan could result in damage to or removal of trees protected by the City of Vacaville, which would be a <i>significant</i> impact.</p>	S	<p>BIO-15a: The removal of protected trees shall be avoided by design where possible (see Mitigation Measures BIO-2c and BIO-10a). For each protected tree removed, three native trees such as valley oak, blue elderberry, or other suitable tree species, shall be established within common areas, such as landscaping areas and the park site. (“Established” shall mean growing for a minimum of three years without supplemental irrigation or other significant support, except for normal maintenance.) The mitigation trees shall be derived from local stock.</p> <p>A mitigation plan shall be developed by a biologist or professional arborist in order to ensure the long-term survival of the native plantings and this plan shall be reviewed and approved by Planning Director of the City of Vacaville prior to implementation. The mitigation plan shall include details on the location of planting, planting techniques, the need for irrigation, monitoring, maintenance, performance standards, and annual reporting requirements. Monitoring shall be done for at least 5 years after planting or until establishment criteria are achieved.</p> <p>BIO-15b: To mitigate potential damage to native trees on the site during construction, a tree protection zone (TPZ) shall be established on the site adjacent to the work area. Usually, a tree protection zone encompasses all areas within the edge of the tree canopy. A professional arborist shall be consulted prior to construction regarding the specifications of the TPZ and the appropriate care for trees before, during, and after construction. Trees whose roots are damaged by implementation of the Specific Plan shall be monitored for 5 years after the end of construction. Those trees that die within the 5-year monitoring period shall be replaced with three native trees. These new replacement trees shall be covered by the mitigation plan described in Mitigation Measure BIO-12a.</p>	LTS

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
<p>BIO-CUM-1: The cumulative effect of the Brighton Landing project as currently designed, together with the construction of Jepson Parkway, would result in the undergrounding of 283 feet of Old Alamo Creek in order to accommodate the widening and relocation of Leisure Town Road, the widening of Elmira Road, and the installation of landscaping and sidewalk proposed as part of the Brighton Landing Specific Plan. This will create a gap of approximately 393 feet between open sections of Old Alamo Creek and would significantly impact habitat for special status species such as Valley elderberry longhorn beetle as well as local movement of terrestrial and aquatic wildlife, including western pond turtle.</p>	S	<p>BIO-CUM-11: Prior to a development application being submitted for development in Subarea O, the applicant shall prepare a site plan for Subarea O. The City shall ensure that this site plan allows for an adequate area to the east of the current Old Alamo Creek channel for the possible relocation (by the Jepson Parkway project) of the portions of Old Alamo Creek that would be impacted by the Jepson Parkway project. This area shall allow for the width of a potentially relocated channel of Old Alamo Creek to remain at least the width of the existing channel, and for the slope of the bank to be less than the current slope, in order to increase bank stability. A Subarea O site plan must also allow for a 100-foot buffer between the riparian vegetation and any development, according to the provisions of the Solano HCP.</p> <p>After completion of the Jepson Parkway project adjacent to the Specific Plan Area, any portion of Subarea O that is not required to maintain a 100-foot buffer from riparian habitat would no longer be restricted by this mitigation measure. Also, in the event that Jepson Parkway is constructed prior to the submittal of a development application for Subarea O, a Subarea O applicant shall only be required to submit a land use plan that includes a 100-foot buffer from riparian habitat.</p> <p>Implementation of this measure will not prevent the Jepson Parkway project from maintaining a movement corridor for western pond turtles, Valley elderberry longhorn beetle, and other species along Old Alamo Creek. In combination with the other mitigation measures in this chapter, this measure would mitigate for the Brighton Landing Specific Plan project's 43-foot contribution to the cumulative impact, since this distance does not in itself represent a significant impediment to wildlife movement.</p>	LTS

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
CULTURAL RESOURCES			
CULT-1: Specific Plan implementation has the potential to result in the disturbance or destruction of archaeological deposits. These deposits could qualify as historical or unique archaeological resources under CEQA.	S	<p><u>CULT-1:</u> If deposits of prehistoric or historical archaeological materials are encountered during Specific Plan activities, all work within 25 feet of the discovery shall be redirected until an archaeologist is contracted to assess the finds, consult with agencies and descendant communities (as appropriate), and make recommendations for the treatment of the discovery. If preservation in place is not feasible, the archaeologist shall evaluate the deposit for its eligibility for listing in the California Register of Historical Resources. If the deposit is not eligible, mitigation is not necessary. If the deposit is eligible, impacts to the deposit shall be mitigated. Mitigation shall include excavation of the archaeological deposit in accordance with a data recovery plan (see <i>CEQA Guidelines</i> Section 15126.4(b)(3)(C)). The City of Vacaville shall ensure that descendant communities are consulted for their input and concerns during the development and implementation of any mitigation plan.</p> <p>Upon completion of the evaluation and/or mitigation, the report shall be submitted to the City of Vacaville, the applicant, the Northwest Information Center at Sonoma State University, and descendant communities.</p>	LTS
CULT-2: Specific Plan implementation has the potential to result in the disturbance or destruction of unique archaeological resources.	S	<u>CULT-2:</u> See Mitigation Measure CULT-1.	LTS
CULT-3: Specific Plan implementation has the potential to result in the disturbance or destruction of paleontological resources that could occur in the sensitive formations underlying the Brighton Landing site. Such disturbance would be	S	<u>CULT-3:</u> If paleontological resources are encountered during Specific Plan activities, all ground-disturbing activities within 25 feet shall be stopped and a qualified paleontologist contacted to assess the situation, consult with agencies as appropriate, and make rec-	LTS

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
considered a significant impact under CEQA.		ommendations for the treatment of the discovery (including, as appropriate, data recovery).	
CULT-4: Specific Plan implementation has the potential to result in the disturbance of human remains, including those interred outside of formal cemeteries. Such disturbance would be considered a significant impact under CEQA.	S	CULT-4: If human remains are encountered during Specific Plan activities, all ground-disturbing activities within 25 feet should be redirected. The remains shall be treated in accordance with the provisions of California Health and Safety Code Section 7050.5.	LTS
GEOLOGY, SOILS, AND MINERAL RESOURCES			
<i>The project would not result in any significant impacts to geology, soils, and mineral resources; therefore, no mitigation measures are necessary.</i>			
GREENHOUSE GAS EMISSIONS			
GHG-1: Greenhouse gases emitted from project operation would be above the threshold of 4.6 MT CO ₂ e/yr/Service Population.	S	<p>GHG-1a: The applicant shall implement the following BAAQMD mitigation measures:</p> <ol style="list-style-type: none"> 1. The applicant shall require through contractual obligations with the contractor(s) that all heating, air conditioning, and ventilation (HVAC) ducts be sealed. 2. The applicant shall require through contractual obligation with the local utility district and contractors that smart meters and programmable thermostats be installed in the schools and all residences. <p>GHG-1b: Residential developments that include garage parking shall be electrically wired to accommodate electric vehicle charging. The location of these electrical outlets shall be specified on building plans.</p> <p>GHG-1c: Installation of Energy Star appliances (dishwashers, refrigerators, clothes-washers, and dryers) shall be specified in project-level residential development and in the private school plans. Installation of Energy-Star appliances shall be verified by the City during plan check.</p>	SU

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		<u>GHG-1d</u> : Mitigation Measure AQ-2, which includes measures to reduce air quality deterioration associated with vehicle trip generation and area source emissions from the project, shall be implemented.	
		<u>GHG-1e</u> : LED fixtures shall be used for outdoor lighting in the public right-of-way.	
		<u>GHG-1f</u> : Project features specified in Mitigation Measures GHG-1a through 1e shall be incorporated into the Specific Plan's development standards, and then subsequently included on the buildings plans.	
		<u>GHG-1g</u> : Additional mitigation as listed in the Metropolitan Transportation Commission toolbox shall be provided where feasible. This could include such features as: shuttle services to train stations, electric car-charging stations at public places such as schools or shopping centers, and improved bicycle access through the site.	
HAZARDS AND HAZARDOUS MATERIALS			
HAZ-1: Pesticide-contaminated soils could be present in the Specific Plan area above levels considered harmful to human health for residential development and schools.	S	<u>HAZ-1:</u> Additional samples shall be taken from the area of the soil samples SS19 analyzed in the Phase II soil sampling, and tested for organochlorine pesticides. If analyses indicate aldrin or other pesticides are present over regulatory limits, the area shall be excavated until all contaminated soil is removed and the contaminated soil removed to the nearest appropriate landfill, or a risk assessment shall be carried out to show that the levels that remain would not be harmful to human health.	LTS
HAZ-2: Construction of the Specific Plan would place residences in a zone subject to wildfires.	S	<u>HAZ-2:</u> Development under the Specific Plan shall at all times conform to the development standards laid down in Section 14.20.290 of the Vacaville Municipal Code, Development Standards for New Construction Adjacent to Open Space Lands Where	LTS

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
<p>HAZ-3: The first phases of the project to be constructed would only have one route for emergency access, along Elmira Road, which the Vacaville Fire Department considers to be inadequate emergency access. Traffic circles and other traffic calming devices, as well as other site-specific design might delay emergency response time or impede movement of emergency vehicles. Therefore, there would be a <i>significant</i> impact.</p>	S	<p>Wildfire Is a Threat. Fire breaks at the boundary with undeveloped lands must be provided at all stages during Plan buildout, subject to the approval of the Vacaville Fire Department.</p> <p><u>TRAF-3a:</u> See Mitigation Measure TRAF-2a.</p> <p><u>TRAF-3b:</u> See Mitigation Measure TRAF-2b.</p>	LTS
HYDROLOGY AND WATER QUALITY			
<p>HYDRO-1: Construction activities could substantially degrade water quality resulting in a violation of water quality standards, and, thus, a <i>significant</i> impact.</p>	S	<p><u>HYDRO-1:</u> The applicant shall comply with the NPDES General Permit for Discharges of Storm Water Discharge Associated with Construction Activities issued by the SWRCB. The Construction General Permit requires the development and implementation of a SWPPP. The SWPPP must contain a site map(s) which shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list BMPs the discharger will use to protect storm water runoff and the placement of those BMPs. Additionally, 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 water body listed on the 303(d) list for sediment.</p> <p>BMPs to prevent or reduce potential erosion control could include mulch covering, temporary seeding, soil stabilizers, binders, fiber</p>	LTS

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
<p>HYDRO-2: Runoff generated from the urban land-uses proposed with the Specific Plan area would drain into a detention basin that has not been configured to allow adequate settling time to achieve adequate stormwater quality treatment. The runoff could therefore substantially degrade water quality, resulting in a violation of water quality standards and a <i>significant</i> impact.</p>	S	<p>rolls, temporary vegetation, and permanent seeding. BMPs to control sediment that may be introduced into runoff could include silt fences, straw wattles, and sediment basins. BMPs for controlling run-on and runoff could include control berms and swales that direct runoff away from sensitive areas. Source control BMPs that prevent pollutants from entering runoff could include establishment of vehicle fueling and maintenance areas and material storage areas that are either covered or are designed to control runoff.</p> <p>HYDRO-2: The applicant shall incorporate the City’s Design Standards and Best Management Practices into the Specific Plan development standards and project design to reduce urban pollutants in runoff in accordance with the requirements of the City’s Storm Drain Design Standards, the City’s Stormwater Management Plan, and the City’s latest NPDES stormwater permit. Design of projects under the Specific Plan shall incorporate design features such as minimizing to the extent feasible impervious surfaces and maximizing to the extent feasible areas that are landscaped. The applicant may use the proposed detention basin as a BMP to provide stormwater quality treatment by modifying the design of the basin to meet the requirements of an extended detention basin or other accepted water quality treatment design in accordance with the requirements of the latest City design standards and NPDES requirements when the project is implemented.</p> <p>Extended detention basins reduce pollutants in runoff by allowing particles and associated pollutants to settle. Other viable BMPs include infiltration techniques such as infiltration trenches and infiltration basins. Infiltration type BMPs allow runoff to infiltrate into the underlying soil, which filters out pollutants. Infiltration techniques are not appropriate in areas with highly pervious</p>	LTS

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
<p>HYDRO-3: Increased runoff generated from the urban land-uses proposed with the Specific Plan could cause an increase in erosion or siltation downstream of the Specific Plan area if runoff is not adequately conveyed to the proposed detention basin, thus representing a <i>significant</i> impact.</p>	S	<p>soils (Hydrologic Soils Types A and B), so the suitability of infiltration techniques for the Specific Plan area will depend on specific soil conditions. Biofiltration BMPs include vegetated swales and buffer strips and bioretention. These types of BMPs reduce pollutants in runoff by filtering the vegetation and subsoil and infiltration into the underlying soils. Source control BMPs, which prevent pollutants from entering runoff, include directing roof spouts to pervious areas, use of porous pavements, enclosing trash storage areas, and providing signs at storm drain inlets to educate the public. Design criteria for these types of BMPs can be found in the California Storm Water Best Management Practices Handbook, New Development and Redevelopment, California Stormwater Quality Association, January 2003.</p> <p><u>HYDRO-3:</u> See Mitigation Measure HYDRO-5.</p>	LTS
<p>HYDRO-4: Increased runoff generated from the urban land uses proposed with the Specific Plan could cause an increase in flooding downstream of the Specific Plan area if runoff is not adequately conveyed to the proposed detention basin.</p>	S	<p><u>HYDRO-4:</u> The applicant shall have a Storm Drain Master Plan (SDMP) prepared by a registered civil engineer that identifies the specific improvements that would mitigate the increased runoff from the Specific Plan area. The SDMP shall provide the necessary calculations to adequately demonstrate that the proposed drainage facilities adequately convey the design runoff from the Specific Plan area and adequately mitigate the impacts of increased runoff. In accordance with the City’s Storm Drain Design Standards, the SDMP shall be prepared and incorporated into the tentative map design and shall include, but is not limited to, the following items:</p> <ul style="list-style-type: none"> “ A topographic map of the drainage shed and adjacent areas as necessary to define the study boundary. The map shall show 	LTS

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		existing and proposed ground elevations (including preliminary building pads), with drainage sub-shed areas in acres, and the layout of the proposed drainage improvements. " A map showing analysis points, proposed street grades, storm drainage facilities, and overland release paths with required easement locations for overland flow across private property. " Preliminary pipe sizes with hydraulic grade lines, design flows, inverts, and proposed ground elevations at analysis points. This information is to be provided on the map showing the layout of the proposed drainage facilities. " Information on the proposed detention basin and pump station including: Y Preliminary Grading Plan showing the layout, configuration, and elevations. Y Preliminary Stage, storage, and discharge information for selected design storms. Y Description of storage requirements, operation, and pumping operation to provide water quality benefits, route storm runoff, and depict dry weather operation. Y Preliminary site plan for the detention facilities, and sizing and layout for the pump station.	
HYDRO-5: The Specific Plan could create runoff water that exceeds the proposed storm drain system and the existing downstream system, which would be a <i>significant</i> impact.	S	<u>HYDRO-5:</u> See Mitigation Measure HYDRO-4.	LTS
HYDRO-6: Runoff generated from the urban land-uses proposed with the Specific Plan could substantially degrade water quality.	S	<u>HYDRO-6:</u> See Mitigation Measure HYDRO-2.	LTS

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
HYDRO-7: The Specific Plan could expose people or structures to <i>significant</i> flood risks within and downstream of the Specific Plan area.	S	<u>HYDRO-7:</u> See Mitigation Measure HYDRO-4.	LTS
HYDRO-CUM-1: The additional area of impervious surface from roads, buildings, and other hardscape features would reduce the quantity of water that reaches the aquifer.	S	<u>HYDRO-CUM-1:</u> See Mitigation Measure HYDRO-3.	LTS
LAND USE AND PLANNING			
<i>The project would not result in any significant impacts to land use; therefore, no mitigation measures are necessary.</i>			
NOISE			
NOISE-1: Future projected traffic noise levels along roadway segments adjacent to the Specific Plan area site would exceed the City’s normally acceptable standard of 60 dBA L _{dn} for transportation noise source impacts on new residential development, as well as exceed the City’s 45 dBA L _{dn} residential interior noise level standard.	S	<u>NOISE-1:</u> A minimum 8-foot-high sound barrier wall or wall/berm shall be constructed along the property lines of the proposed residential properties that adjoin Leisure Town Road and a minimum 6-foot-high sound barrier wall or wall/berm shall be constructed along the property lines of the proposed residential properties that adjoin Elmira Road. The sound walls should be located along the residential property line of all residences that adjoin Leisure Town Road or Elmira Road. The sound barrier height shall be determined as measured from either the adjoining edge of roadway elevation or the receiving property elevation, whichever is higher. If the existing residential properties located in the northwest corner of the Specific Plan area remain after buildout of the Specific Plan, these mitigating sound barrier walls shall also be required along the edges of these property lines adjoining Leisure Town Road and Elmira Road, with wrap-around portions extending along any necessary access driveways to these properties, so that line of sight from outdoor active use areas of these properties to the roadways is blocked.	LTS

S = Significant; LTS = Less Than Significant; SU = Significant and Unavoidable