

CALIFORNIA ENVIRONMENTAL QUALITY ACT

STATEMENT OF FINDINGS

The Department of Toxic Substances Control (DTSC) has issued Findings for this project pursuant to the California Environmental Quality Act (CEQA; California Public Resources Code, Division 13, Section 21081) and implementing Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15091 et seq.)

A. PROJECT SUBJECT TO DTSC APPROVAL

PROJECT TITLE: Joyce Drive Property Report of Findings and Response Plan		SITE CODING: 102504-11
PROJECT ADDRESS: South side of Joyce Drive, east of the junction of Joyce Drive and Whiting Street	CITY: Grass Valley	COUNTY: Nevada
PROJECT SPONSOR: City of Grass Valley	CONTACT: Amy Wolfson	PHONE/ EMAIL: (530) 274-4711, awolfson@grassvalleyca.gov
Approval Action Under Consideration by DTSC: Report of Findings and Response Plan		
STATUTORY AUTHORITY: ☐ California H&SC, Chap. 6.5 ☐ California H&SC, Chap. 6.8 ☒ Other (specify): CA H&SC, Chap 6.82		
PROJECT DESCRIPTION: The Project at the Joyce Drive Property, also known as Heritage Oaks Phase II (Site), will remove fill soil and underlying floodplain sediment that are contaminated with elevated concentrations of heavy metals (arsenic and mercury), from the City of Grass Valley's (City's) proposed residential building areas on the Site. The proposed Project will also implement land use restrictions for the contaminated sediment that will remain in place within the Little Wolf Creek Floodplain at the Site. Lead and cobalt were also detected in some soil samples at concentrations that require cleanup and will be addressed as part of the proposed Project. The removal action is intended to be compatible with future unrestricted land use for the City's proposed residential development, while restricting access to the Little Wolf Creek floodplain. Remediation activities include: • Excavating approximately 10,030 cubic yards of contaminated soil and underlying floodplain sediment; • Soil sampling and analysis to confirm that the remedial goals are achieved; • Characterizing the excavated materials for disposal in accordance with landfill acceptance criteria; • Transporting the materials (approximately 1,000 truck trips) for disposal at licensed solid waste facilities in accordance with applicable regulations; • Importing clean soil (approximately 1,000 truck trips) for use as engineered fill to replace the excavated soil; and • Restoring the excavation areas, including grading, installing erosion and sediment control best management practices (BMPs), planting, and application of seed, mulch, and fertilizer. Land use controls will require fencing the Little Wolf Creek floodplain, which will effectively reduce the chance of future human exposure and avoid disturbance of the densely vegetated floodplain. Treated municipal water is to be supplied to the proposed residential development. Surface water in Little Wolf Creek and groundwater will not be used for domestic supply at the Site. As detailed in the Response Plan, the remaining sediment has been determined to present relatively low risk to water quality and ecological receptors. In addition, a Land Use Covenant (LUC) and an Operation and Maintenance (O&M) Agreement will be required for the floodplain to memorialize prohibitions and long-term requirements for monitoring, maintenance, and reporting.		

Proposed Project activities conducted as part of the Response Plan will be completed concurrently with the Lead Agency's actions related to the Tentative Subdivision Map (TSM) action for the division of the approximately 3.74-acre parcel into 12 lots for residential use and subsequent development. All construction, including limited excavation, characterization, and evaluation for offsite disposal, grading of Site soils, dust control and air monitoring will be conducted in accordance with the Response Plan.

The remedial action involves the excavation of fill soil, and therefore cultural resources are not likely to be encountered during the remedial action. Procedures to be followed in the event of unanticipated discovery of cultural resources during remedial action are set forth in the Unanticipated Discovery Plan (UDP) (Response Plan - Appendix M). The procedures set forth in the UDP are to be followed during all invasive and intrusive surface or subsurface Site disturbances. The contractor, subcontractor and field personnel are to be familiar with the provisions of the UDP, and a copy of the UDP must be maintained at the Site during removal action. It is estimated that Project activities will take approximately 2-3 months.

All of the potential environmental impacts associated with the proposed Project activities detailed in the Response Plan were analyzed as part of the City's Subsequent Initial Study & Mitigated Negative Declaration – Heritage Oaks Phase II – Tentative Subdivision Map (23PLN-27), dated February 2026 (IS/MND). Remediation activities will comply with all applicable mitigation measures adopted in the City's IS/MND. The mitigation measures are provided in Section C and Attachment A of this document.

B. LEAD AGENCY ENVIRONMENTAL DOCUMENT REVIEWED

Lead Agency: City of Grass Valley
Lead Agency's Environmental Document: Subsequent Initial Study & Mitigated Negative Declaration –Heritage Oaks Phase II – Tentative Subdivision Map (23PLN-27)
Date Adopted/Certified: May 19, 2026
State Clearinghouse Number: 2019119068

C. STATEMENT OF FINDINGS AND FACTS FOR ADEQUACY OF LEAD AGENCY ENVIRONMENTAL DOCUMENT

Using its independent judgment, DTSC makes the following findings:

- ☒ The Lead Agency Final Environmental Document includes a description of the Project now before DTSC for decision
- ☒ The Lead Agency Final Environmental Document adequately analyzed impacts associated with the Project before DTSC for decision.
- ☒ DTSC concurs with the findings made by the Lead Agency Final Environmental Document relating to the Project before DTSC for decision.

- ☒ Mitigation measures are included in the Lead Agency Final Environmental Document for the following resources that would potentially be affected by the DTSC Project.

☐ Aesthetics	Mitigation Measure: None
☐ Agricultural Resources	Mitigation Measure: None
☒ Air Quality	Mitigation Measure: Air Quality 1
☐ Agricultural Resources	Mitigation Measure: None
☒ Biological Resources	Mitigation Measure: BIO 1, BIO 2, BIO 3
☐ Cultural Resources	Mitigation Measure: None
☐ Energy	Mitigation Measure: None
☒ Geology / Soils	Mitigation Measure: GEO 1, GEO 2
☐ Greenhouse Gas Emissions	Mitigation Measure: None
☐ Hazards / Hazardous Materials	Mitigation Measures: None
☒ Hydrology / Water Quality	Mitigation Measure: HY/WQ 1, HY/WQ 2
☐ Land Use / Planning	Mitigation Measure: None
☐ Mineral Resources	Mitigation Measure: None
☒ Noise	Mitigation Measure: NOISE 1, NOISE 2
☐ Population / Housing	Mitigation Measure: None
☐ Public Services	Mitigation Measure: None
☐ Recreation	Mitigation Measure: None
☐ Transportation / Traffic	Mitigation Measure: None
☒ Tribal Cultural Resources	Mitigation Measure: TCR 1, TCR 2, TCR 3, TCR 4
☐ Utilities / Service Systems	Mitigation Measure: None
☐ Wildfire	Mitigation Measure: None

☒ Mitigation measures identified in the Lead Agency Final Environmental Document have been adopted by DTSC for this Project and will be implemented to avoid, reduce, or substantially lessen the Project impacts. No additional mitigation measures are necessary, and no additional mitigation monitoring plan is required pursuant to CEQA.

For each significant environmental effect identified for the Project:

- ☒ Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effects as identified in the Lead Agency Final Environmental Document.
- ☒ Such changes or alterations are within the responsibility and jurisdiction of the City of Grass Valley not DTSC.
- ☒ Such changes have been adopted by this public agency or can and should be adopted by this public agency.
- ☐ Mitigation measures included in the Lead Agency Final Environmental Document are infeasible, and therefore, will not be incorporated into the DTSC Project for the following reasons: N/A

BASED ON THE ABOVE FINDINGS, DTSC CONCLUDES:

- ☒ The proposed Project will not result in significant and unavoidable effects to the environment.

☐ The proposed Project will result in significant and unavoidable effects to the following environmental resources:

- | | |
|--|---|
| ☐ Air Quality | ☐ Mineral Resources |
| ☐ Agricultural Resources | ☐ Noise |
| ☐ Biological Resources | ☐ Population/Housing |
| ☐ Cultural Resources | ☐ Public Services |
| ☐ Energy | ☐ Recreation |
| ☐ Geology/ Soils | ☐ Transportation/Traffic |
| ☐ Greenhouse Gas Emissions | ☐ Tribal Cultural Resources |
| ☐ Hazards/Hazardous Materials | ☐ Utilities/ Service Systems |
| ☐ Hydrology/ Water Quality | ☐ Wildfire |

- ☒ None of the conditions requiring a subsequent EIR or Negative Declaration pursuant to Cal. Code Regs., title 14 Section 15162 exist.

- ☒ In accordance with Cal. Code of Regs., title 14, section 15093, a Notice of Determination indicating the results of said Findings will be filed with the Governor's Office of Planning and Research / State Clearinghouse.

D. CERTIFICATION

Project Manager's Signature

7/15/2026

Date

Sarah Lares

Project Manager's Name

Sr. Environmental Scientist (Specialist)

Title

714-484-5321

Phone #

Branch Chief's Signature

7/15/2026

Date

Eileen Mananian, M.S.

Branch Chief's Name

Environmental Program Manager I
(Supervisory)

Title

714-484-5349

Phone #

Attachment A

City of Grass Valley's

Subsequent Initial Study & Mitigated Negative Declaration
Heritage Oaks Phase II – Tentative Subdivision Map
(23PLN-27)

Mitigation Monitoring and Reporting Program
(MMRP)

Note: Not all mitigation measures in this MMRP are applicable to the Response Plan. See table in the Statement of Findings for applicable mitigation measures.

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
I	AIR QUALITY	With implementation of the following standard conditions of approval, adverse impacts to air quality resulting from the proposed project would remain less than significant. 1. The project shall be required to use Low VOC paintings and coatings. 2. The applicant shall submit a Dust Mitigation Plan for review and approval by the Northern Sierra Air Quality Management District and City Engineer. Dust mitigation measures shall be implemented in accordance with the approved Dust Mitigation Plan. The dust mitigation plan shall include the following: a. The applicant shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction. b. All material excavated, stockpiled, or graded shall be sufficiently watered, treated, or covered to prevent dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering should occur at least twice daily, with complete site coverage. c. All land clearing, grading, earth moving, or excavation activities on the project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph. d. All inactive portions of the development site shall be covered, seeded, or watered until a suitable cover is established. Alternatively, the applicant shall be responsible for applying City approved non-toxic soil stabilizers (according to manufactures specifications) to all inactive construction areas (previously graded areas which remain inactive for 96 hours) in accordance with the local grading ordinance.	4	CDD	OG		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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I	AIR QUALITY	e. All areas with vehicle traffic shall be watered or have dust palliative applied as necessary for regular stabilization of dust emissions. f. All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance. g. Paved streets adjacent to the project shall be swept at the end of each day, or as required to remove excessive accumulations of silt and/or mud which may have resulted from activities at the project site. h. No burning of waste material or vegetation shall take place on-site unless alternatives to burning are deemed infeasible by the District. Alternatives to burning include chipping, mulching or converting to biomass.	4	CDD	OG		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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II	BIOLOGICAL	BIO 1 Mitigation Measures: <u>To avoid direct mortality of fish and wildlife species a Designated Biologist with a General CDFW handling permit shall be onsite during the removal of riparian vegetation and any encroachment into Little Wolf Creek. The Designated Biologist may move out of harm's way special-status species or other wildlife of low or limited mobility that would otherwise be injured or killed from Project-related activities, as needed. The Designated Biologist is authorized to stop work to prevent direct mortality of special-status species. The contractor shall allow wildlife species move out of harm's way on their own volition, if possible, and to have a qualified biologist with the proper handling permit to assist their relocation as a last resort.</u>	4	CDD	OG		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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II.	BIOLOGICAL	BIO 2 Mitigation Measures: <u>In order to avoid or minimize impacts to riparian and native trees, as well as to Little Wolf Creek, the following measures shall be included as notes on all construction documents and shall be implemented during vegetation removal, grading and construction activity:</u> i. <u>To avoid and minimize impacts to Little Wolf Creek and its associated riparian habitat, encroachment into the creek and riparian habitat will be reduced to the least possible footprint given the constraints of the site and project requirements. Minimization will include the placement of BMPs and soil erosion control devices between any grading and construction areas and Little Wolf Creek and its associated riparian habitat. Any work to be conducted within or directly adjacent to Little Wolf Creek and its associated riparian habitat will be done during a period of low rainfall and dry weather only. This will minimize soil erosion into Little Wolf Creek and its associated riparian habitat.</u> ii. <u>A SWPPP will be required given the grading will be 1.0 acres or greater and therefore, SWPPP monitoring of Little Wolf Creek will be implemented and the SWPPP and CDFW Section 1602 soil erosion and sedimentation measures will be monitored to ensure that water quality impacts are controlled during site grading and construction.</u>	4	CDD	OG		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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II	BIOLOGICAL	BIO 2- continued iii. <u>All construction equipment will be maintained and stored outside of Little Wolf Creek and its associated riparian habitat zone such that any maintenance, leaks, etc. are contained within an upland area outside of the Little Wolf Creek and its associated riparian habitat.</u> iv. <u>All construction equipment will be maintained and stored outside of Little Wolf Creek and its associated riparian habitat zone such that any maintenance, leaks, etc. are contained within an upland area outside of the Little Wolf Creek and its associated riparian habitat.</u> v. <u>Any impacts from vegetation removal within the riparian habitat associated with Little Wolf Creek shall minimize any tree removal for native trees with a trunk diameter at breast height in excess of 4 inches. Such vegetation removal should be done with hand tools to the extent feasible within the riparian habitat. If native trees with a DBH greater than 4 inches are removed, a Restoration Plan shall be included within the CDFW Section 1602 application that outlines the mitigation to compensate for the removal of such trees at a minimum of a 3:1 ratio. This will include a planting plan for willows and similar riparian vegetation and trees to be planted along Little Wolf Creek within the Project area at a 3:1 mitigation ratio, which will be monitored and maintained for a minimum of 3 years to</u>	4	CDD	OG		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
	BIOLOGICAL	BIO 2- Continued <u>ensure survival. Site restoration will also include all areas and access points to the project area that are exposed or disturbed during project activities and these areas shall be seeded and covered with broadcast straw, mulch, and/or erosion control blankets.</u> vi. <u>Prior to any discharge into the onsite drainage courses, a Lake and Streambed Alteration (LSA) Agreement will be required from CDFW. All of these measures, including the Revegetation and Restoration Plan, will be included as part of the CDFW Section 1602 final authorization covering the project.</u>	4	CDD	OG		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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	BIOLOGICAL	BIO 3 <u>If project-related activities are scheduled between February 1 to August 31, a focused survey for nests should be conducted by a Designated Biologist prior to the beginning of Project-related activities. The Designated Biologist should survey a minimum radius of 500-feet (for migratory birds) and 1/2-mile (for raptors) around the Project area that can be accessed by the Project proponent. If an active nest is found, active nests should be avoided, and a no disturbance or destruction buffer should be determined and established by a Designated Biologist. The buffer should be kept in place until after the breeding nesting season or the Designated Biologist confirms the young have fledged, are foraging independently, and the nest is no longer active for the season. The extent of these buffers should be determined by the Designated Biologist and will depend on the species present, the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.</u> <u>If any special-status species are encountered during project activities, work should be suspended, CDFW notified, and conservation measures should be developed in agreement with CDFW prior to re-initiating the activity.</u>	4	CDD	OG		

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No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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	BIOLOGICAL	BIO 3- Continued <u>Conversely, if during project activities, any species listed pursuant to the CESA are encountered, work shall be suspended, and CDFW notified. Work may not re-initiate until the Project proponent has consulted with CDFW and can demonstrate compliance with CESA.</u>					

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No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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III	CULTURAL/ TRIBAL CULTURAL	TCR 1 - Mitigation Measure: <i>Inadvertent Discoveries</i> – If potential tribal cultural resources (TCRs), archaeological resources, other cultural resources, are discovered work shall cease within 100 feet of the find (based on the apparent distribution of cultural resources) and a qualified cultural resources specialist and UAIC representative will assess the significance of the find and make recommendations for further evaluation and treatment as necessary. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts. The Tribe does not consider curation of TCR's to be appropriate or respectful and request materials not be permanently curated, unless requested by the Tribe. If adverse impacts to tribal cultural resources, unique archaeology, or other cultural resources occurs, then consultation with UAIC and other traditionally and culturally affiliated Native American Tribes regarding mitigation contained in Public Resources Code sections 21084.3(a) and (b) and CEQA Guidelines section 15370 should occur.	4	CDD	OG		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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III	CULTURAL/ TRIBAL CULTURAL	TCR 2 – Mitigation Measure: <i>Inadvertent Discoveries</i> – 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 or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related 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 for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. 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 if the coroner recognizes the human remains to be those of a Native American, or 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 in accordance with Section 5097.98 of the Public Resource Code.	4	CDD	OG		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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III	CULTURAL/ TRIBAL CULTURAL	TCR 3 - Mitigation Measure <i>Post Ground Discovery</i> – A minimum of seven days prior to beginning earthwork or other soil disturbance activities, the applicant shall notify the Community Development Department of the proposed earthwork start-date. The Community Development Department will then contact the United Auburn Indian Community (UAIC). A UAIC tribal representative shall be invited to inspect the site, including any soil piles, trenches, or other disturbed areas, within the first five days of ground-breaking activity. During this inspection, a site meeting of construction personnel shall also be held to afford the tribal representative the opportunity to provide tribal cultural resources awareness information. If any tribal cultural resources, such as structural features, usual amounts of bone or shale, artifacts, human remains, or architectural remains are encountered during this initial inspection or during any subsequent construction activities, work shall be suspended within 100 feet of the find. The project applicant shall then coordinate any necessary investigation of the site with the UAIC tribal representative, a qualified archaeologist approved by the City. As part of the site investigation and resource assessment the archeologist shall consult with the UAIC and provide proper management recommendations should potential impacts to the resources be found by the Community Development Department to be significant. A written report detailing the site assessment, coordination activities, and management recommendations shall be provided to the Community Development Department by a qualified archaeologist.	4	CDD	OG		
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HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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III.	CULTURAL/ TRIBAL CULTURAL	Possible management recommendations for tribal cultural resources, historical, or unique archaeological resources could include resource avoidance or, where avoidance is infeasible in light of project design or layout or is unnecessary to avoid significant effects, preservation in place or other measures.	4	CDD	OG		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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	CULTURAL/ TRIBAL CULTURAL	TCR 4- Mitigation Measure <u>The project proponent or their construction contractor shall comply with the following measure to assist with identification of TCRs at the earliest possible time during project-related earthmoving activities:</u> a) <u>The project proponent shall contact the UAIC THPO (thpo@auburnrancheria.com) at least 2 to 3 months prior to project ground-disturbing activities to retain the services of a UAIC Certified Tribal Monitor(s). The duration of the construction schedule and Tribal Monitoring shall be determined at this time.</u> b) <u>A contracted UAIC Certified Tribal Monitor(s) shall monitor the initial ground disturbance in the project area. If there are cultural finds, the UAIC THPO may require additional Tribal Monitoring.</u> c) <u>Tribal Monitors or Tribal Representatives shall have the authority to direct that work be temporarily paused, diverted, or slowed within 100 feet of the immediate impact area if sites, cultural soils, or objects of potential significance are identified. The temporary pause/diversion shall be of an adequate duration for the Tribal Representative to examine the resource.</u>					

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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TCR 4-Continued

a) Appropriate treatment of TCRs or other cultural finds may include but is not limited to:

- a. Recordation of the resource(s)
- b. Avoidance and preservation of the resource(s)
- c. Recovery and reburial of the resource(s) onsite or in a feasible off-site location in a designated area subject to no future disturbance. The location of the reburial shall be acceptable to the UAIC.

b) To track the implementation of this measure, the Tribal Monitor(s) shall document field-monitoring activities on a Tribal Monitor log.

c) The Tribal Monitor(s) shall wear the appropriate safety equipment while on the construction site.

d) The Tribal Monitor, in consultation with the UAIC THPO and the project proponent shall determine a mutual end or reduction to the on-site monitoring if/when construction activities have a low potential for impacting Tribal Cultural Resources.

Mitigation Phase Key: 1. Prior to approval of Improvement Plans/Grading Plans 2. Prior to Issuance of Grading/Building Permits 3. Prior to construction and site grading
4. During construction 5. Prior to Occupancy 7. After construction
Responsible Person/Agency Key: CDD – City of Grass Valley Community Development Department; DEV – Developer; APP – Applicant of individual project
Phase /Frequency of Monitoring and Reporting Key: OG -- Ongoing OT -- One-time (at each development proposal) MO -- Monthly QU -- Quarterly AN -- Annually

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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		TCR 4- Continued e) <u>To track the implementation of this measure, the Tribal Monitor(s) shall document field-monitoring activities on a Tribal Monitor log.</u> f) <u>The Tribal Monitor(s) shall wear the appropriate safety equipment while on the construction site.</u> g) <u>The Tribal Monitor, in consultation with the UAIC THPO and the project proponent shall determine a mutual end or reduction to the on-site monitoring if/when construction activities have a low potential for impacting Tribal Cultural Resources.</u> h) <u>In the event the Tribal Monitor does not report to the job site at the scheduled time after receiving 24 hour business day notice, construction activities may proceed without tribal monitoring. At no time, regardless of the presence or absence of a Tribal Monitor, shall suspected TCRs be mishandled or disrespected.</u> i) <u>The CEQA lead shall assist with resolution of disagreements between the project proponent/contractor and the Tribe if such occurs on the project.</u>					

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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IV	GEOLOGY/ SOILS	GEO 1 Mitigation Measures: 1. Prior to commencement of site work, fiber rolls shall be installed down slope of the proposed area of disturbance to prevent migration of sediment, rocks, and other objects from the site. Fiber rolls on slopes are intended to reduce sediment discharge from disturbed areas, reduce the velocity of water flow, and aid in the overall stability of slopes. The fiber rolls should remain in place until construction activity is complete and vegetation becomes established. 2. Soil exposed in permanent slope faces should be hydroseeded or hand seeded/strawed with an appropriate seed mixture compatible with the soil and climate conditions of the site as recommended by the local Resource Conservation District. 3. Following seeding, jute netting or erosion control blankets should be placed and secured over the slopes steeper than 2:1, H:V, to keep seeds and straw from being washed or blown away. Tackifiers or binding agents may be used in lieu of jute netting. 4. Surface water drainage ditches should be established as necessary to intercept and redirect concentrated surface water away from cut and fill slope faces. Under no circumstances should concentrated surface water be allowed to run over slope faces. The intercepted water should be discharged into appropriate collection areas.	3	CDD	OG		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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IV	GEOLOGY/ SOILS	GEO 2 - Mitigation Measure: The applicant shall submit to the City Engineer for review and acceptance two copies of a detailed Soils Engineering Report and Engineering Geology Report certified by a Civil Engineer registered in the State of California. In addition to the California Building Code requirements, the report shall specify the pavement structural sections for the proposed roadways in relation to the proposed traffic indexes. The improvements and grading plans shall incorporate the recommendations of the approved Soils Engineering Report and Engineering Geology Report. The project developer shall retain a civil engineer, soils engineer, and engineering geologist to provide professional inspection of the grading operations. If work is observed as not being in compliance with the California Building Code and the approved improvements and grading plans, the discrepancies shall be reported immediately in writing to the permittee, the Building Official, and the Engineering Division.	3	CDD	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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IV	HYDROLOGY/WATER QUALITY	HY/WQ 1 – Mitigation Measures: 1. Prior to the issuance of a grading permit, the applicant shall submit a Storm Water Pollution Prevention Plan (SWPPP) to the City for acceptance, file a Notice of Intent with the California Water Quality Control Board and comply with all provisions of the Clean Water Act. The applicant shall submit the Waste Discharge Identification (WDID) number, issued by the state, to the City of Grass Valley Engineering Division. 2. Prior to the issuance of a grading permit, a detailed grading, permanent erosion control and landscaping plan shall be submitted for review and approval by the Engineering Division prior to commencing grading. Erosion control measures shall be implemented in accordance with the approved plans. Any expenses made by the City to enforce the required erosion control measures will be paid by deposit.	3	CDD	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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IV	HYDROLOGY/WATER QUALITY	HY/WQ 2 – Mitigation Measures: The following Best Management Practices (BMPs) shall be implemented for the duration of the implementation phase and the efficacy of the BMPs monitored for the duration of the maintenance, monitoring, and reporting phase: 1. Prior to commencement of site work, fiber rolls should be installed down slope of the proposed area of disturbance to prevent migration of sediment, rocks, and other objects from the site. Fiber rolls on slopes are intended to reduce sediment discharge from disturbed areas, reduce the velocity of water flow, and aid in the overall stability of slopes. The fiber rolls should remain in place until construction activity is complete and vegetation becomes established. 2. Soil exposed in permanent slope faces should be hydroseeded or hand seeded/strawed with an appropriate seed mixture compatible with the soil and climate conditions of the site as recommended by the local Resource Conservation District. 3. Following seeding, jute netting or erosion control blankets should be placed and secured over the slopes steeper than 2:1, H:V, to keep seeds and straw from being washed or blown away. Tackifiers or binding agents may be used in lieu of jute netting. 4. Surface water drainage ditches should be established as necessary to intercept and redirect concentrated surface water away from cut and fill slope faces. Under no circumstances should concentrated surface water be allowed to run over slope faces. The intercepted water should be discharged into appropriate collection areas.	4	CDD	OG		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
II.	NOISE	NOISE 1 - Mitigation Measure: Prior to the issuance of grading and/or building permits, the project grading and building plans shall identify locations for all stationary noise-generating construction equipment, such as air compressors, that are located as far as practical from nearby homes. When such equipment must be located near adjacent residences, project grading and improvement plans shall include provisions to provide acoustical shielding of such equipment. NOISE 2 - Mitigation Measure: 1. A traffic noise barrier shall be constructed at the location indicated on Figure 2. A noise barrier measuring 6-feet in height relative to backyard elevation would result in the satisfaction of City of Grass Valley's 65 dB Ldn conditionally acceptable exterior noise level standard. Suitable materials for the traffic noise barrier include masonry and precast concrete panels. Glass can be an effective barrier material in areas where preservation of view is desired. Other materials may be acceptable but should be reviewed by an acoustical consultant prior to use. 2. All upper-floor windows of the residence constructed on Lot 14 from which SR-49 would be visible (i.e. north, south, and west-facing bedroom windows) shall be upgraded to a minimum STC rating of 33 in order to comply with the City of Grass Valley 45 dB Ldn interior noise level standard with a margin of safety. Figure 2 shows the lot location where such window upgrades are recommended. 3. Mechanical ventilation (air conditioning) should be provided for all residences in this development	2	CDD	OT		
			2	CDD	OT		
			2	CDD	OT		
			2	CDD	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
1.	NOISE	NOISE 2 - Mitigation Measure: 1. A traffic noise barrier shall be constructed at the location indicated on Figure 2. A noise barrier measuring 6-feet in height relative to backyard elevation would result in the satisfaction of City of Grass Valley's 65 dB Ldn conditionally acceptable exterior noise level standard. - Suitable materials for the traffic noise barrier include masonry and precast concrete panels. Glass can be an effective barrier material in areas where preservation of view is desired. Other materials may be acceptable but should be reviewed by an acoustical consultant prior to use. 2. All upper-floor windows of the residence constructed on Lot 14 from which SR-49 would be visible (i.e. north, south, and west-facing bedroom windows) shall be upgraded to a minimum STC rating of 33 in order to comply with the City of Grass Valley 45 dB Ldn interior noise level standard with a margin of safety. Figure 2 shows the lot location where such window upgrades are recommended. 3. Mechanical ventilation (air conditioning) should be provided for all residences in this development to allow occupants to close doors and windows as desired to achieve compliance with the applicable interior noise level criteria.	3	CDD	OG		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
				CDA	OT		
				PW	OT		
4.3-8	<i>County Road 99W/County Road 8 Intersection Impacts</i> Traffic volumes at the County Road 99W intersection with County Road 8 would result in the need for left turn channelization on northbound County Road 99W and a right turn lane on southbound County Road 99W at the County Road 8 intersection.	The following mitigation measure, to be included into the Draft Dunnigan General Plan's list of circulation improvements as required in Mitigation 4.3-1, would reduce County Road 99W/County Road 8 intersection impacts: Provide northbound left turn channelization and a southbound right turn lane on County Road 99W at the County Road 8 intersection.	1 when turn volumes exceed 200 vph	CDA PW	OT OT		
4.3-9	<i>County Road 8/Interstate 5 Intersection Impacts</i> Traffic volumes would result in unsatisfactory intersection operations at the Interstate 5 northbound and southbound ramp intersections with County Road 8.	The following mitigation measure, to be included into the Draft Dunnigan General Plan's list of circulation improvements as required in Mitigation 4.3-1, would reduce County Road 8/Interstate 5 intersection impacts: - Signalization of the northbound and southbound Interstate 5 ramp intersections at County Road 8. - Widen County Road 8 at both ramp intersections to provide left turn channelization. It is estimated that left turn channelization could be provided at these locations without the need to widen the existing 2-lane Interstate 5 overcrossing structure. Approximately 350 feet is available at each intersection to provide left turn channelization.	1 as warranted estimated threshold at 70% of GP buildout in area around CR8 interchange	CDA PW	OT OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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4.3-10	<i>County Road 8 west of Interstate 5 Traffic Volume Impacts</i> Traffic volumes would result in unsatisfactory roadway operations on County Road 8 west of the Interstate 5 interchange.	The following mitigation measure, to be included into the Draft Dunnigan General Plan's list of circulation improvements as required in Mitigation 4.3-1, would reduce County Road 8 west of Interstate 5 traffic volume impacts: Provide auxiliary lanes on County Road 8 from the Interstate 5 southbound ramp intersection to the primary access road which would serve the Aulman Property. A four-lane segment consisting of two eastbound travel lanes, one westbound lane and one center turn lane would be required. The additional eastbound auxiliary lane would be provided from the primary access road to the Aulman Property (i.e., at the west border of the site) to the southbound Interstate 5 on-ramp. This lane would terminate as an exclusive lane to the on-ramp. The center lane should consist of a two-way center lane at County Road 89-B in the east and transition to an exclusive left turn pocket at the primary roadway connection to the Aulman Property in the west. This configuration is recommended as the majority of westbound travel on County Road 8 would be oriented to the Aulman Property site and adjacent highway commercial property.	1 at 65% buildout of Aulman property or buildout of adjacent comm. property	CDA PW	OT OT		
4.3-11	<i>Left Turn Access on County Road 8 West of the Interstate 5 Interchange</i> Left turn access from vehicles accessing County Road 8 west of the Interstate 5 interchange from the south would create intersection operation problems.	The following mitigation measure, to be included into the Draft Dunnigan General Plan's list of circulation improvements as required in Mitigation 4.3-1, would reduce County Road 8 between County Road 90 and Interstate 5 left turn access impacts: Access to County Road 8 from west of southbound ramp to Interstate 5 be limited to right-turns-only for vehicles entering from the Highway Service Commercial Truck area directly south of the intersection (the Aulman Property). Left turn maneuvers would be prohibited. This would likely require construction of a raised median on County Road 8 adjacent to the existing fuel station on the north side of the roadway.	1 in conjunction with initial comm. develop, on west side of interchange	CDA PW	OT OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
4.3-12	<i>County Road 8 between Interstate 5 and County Road 99W Traffic Volume Impacts</i> Traffic volumes on County Road 8 between the Interstate 5 northbound ramp intersection and the County Road 99W intersection, together with vehicle storage needs on County Road 8 at each of these intersections, would require widening of this segment of County Road 8 to four lanes.	The following mitigation measure, to be included into the Draft Dunnigan General Plan's list of circulation improvements as required in Mitigation 4.3-1, would reduce County Road 8 between Interstate 5 and County Road 99W traffic volume impacts: Widen County Road 8 to four lanes from the northbound ramp intersection east to County Road 99W.	1 at 10,000 ADT on CR8	CDA PW	OT OT		
4.3-13	<i>Interstate 5 Impacts</i> Continued growth in through regional traffic and growth in Yolo County would result in unsatisfactory operations on Interstate 5. As future traffic levels would be dependent upon a number of factors, this impact is potentially significant.	The following Draft Dunnigan General Plan measure would reduce Interstate 5 impacts: Circulation Policy D-C.9, which states that development in Dunnigan shall contribute to any Countywide funding mechanism which might be established for the local share of regional highway improvements to the County.	1 cumulative; not identified	CDA PW	OT OT		
4.3-14	<i>Dunnigan Village Intersections with County Road 88 Impacts</i> Proposed roadway connections to County Road 88 would result in limited intersection spacing, with the potential for conflicts between turning vehicles and through traffic.	Provide a 40 foot pavement section on County Road 88 adjacent to Dunnigan Village site to meet County standards for a collector facility and to reduce intersection spacing impacts, with two 12 foot lanes and 8 foot shoulders (plus any parking area).	in conjunction with development of Dunnigan Village street connections with CR88	PW	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
4.3-15	<i>Dunnigan Village Impact on County Road 6 Level of Service</i> Unsatisfactory roadway Level of Service would result on County Road 6 from the easterly access road intersection to the southbound Interstate 5 ramp intersection.	Widen roadway segment to provide four travel lanes. Roadway widening is estimated to be required with development of approximately 80 percent of the Dunnigan Village project.	at two-lane threshold of 13,500 ADT	PW	OT		
4.3-16	<i>Dunnigan Village Intersection Impacts</i> Unsatisfactory intersection operations would result at the County Road 6 Northbound Interstate 5 ramp intersection.	- Same as Mitigation 4.3-4(a), to signalize County Road 6/Northbound Interstate 5 Ramp intersection. - If a new on-ramp has not been constructed as described in Mitigation 4.3-4(d), left turn channelization on eastbound County Road 6 would be required at buildout of the Dunnigan Village project.	as warranted	PW	OT		
4.3-17	<i>Dunnigan Village/County Road 6 Intersections Impacts</i> Unsatisfactory intersection operations would result at the easterly two access road intersections with County Road 6.	Provide a continuous two-way center turn lane on County Road 6 through the easterly two access road intersections. This is partially the same mitigation as required for buildout of the planning area as a whole, as described in Mitigation 4.3-3.	at initial phases of Dunnigan Village	PW	OT		
4.3-18	<i>Dunnigan Village Internal Roadway Impacts</i> Construction of the proposed roundabout, divided street and island treatments and proposed parking lot access points would potentially result in operational problems. This is a potentially significant impact. (PS)	The Dunnigan Village project would be required to incorporate applicable Yolo County standards for turning radii, vehicle stacking distances, sight distance and safe stopping distance. Design review of Yolo County standards would be conducted at the Tentative Map stage. Design review of the roundabout, divided street section through the proposed village center and island treatments and parking lot access points would include review of left turn treatments at the major intersections within the site together with proposed access locations to the major parking lots and provisions for on-street parking.	at initial phases of Dunnigan Village	PW	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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4.3-19	<i>Dunnigan Village Circulation Connections to Hardwood Subdivision</i> The proposed site design does not provide for circulation to existing development to the north, as required under Draft Dunnigan General Plan Circulation Policy D.6-6.	Provide a roadway connection to the north from the Dunnigan Village internal roadway system to County Road 5.	at initial phases of Dunnigan Village	PW	OT		
4.3-20	<i>Dunnigan Park Impacts on County Road 6</i> Projected traffic volumes would require left turn channelization on westbound County Road 6 at the southbound Interstate 5 ramp intersection.	Provide left turn channelization on westbound County Road 6 at the Interstate 5 ramp intersection. Approximately 350 feet is available from the overcrossing structure to the ramp intersection to accommodate widening for left turn channelization. This is partially the same mitigation as required for overall buildout of the planning area under Mitigation 4.3-3.	when left turn volume exceeds 100 vph	PW	OT		
4.3-21	<i>Dunnigan Park Intersection with County Road 6 Impacts</i> Traffic volumes would result in unacceptable roadway and intersection operations on County Road 6 east of the Interstate 5 interchange and on County Road 89 at County Road 6.	(a) Construct a raised median on County Road 6 through the County Road 89 intersection to prohibit left turn maneuvers at the intersection. This would force vehicles traveling east to travel to County Road 99W for access to the Dunnigan Park project (b) Extend the southerly access road across County Road 89 to intersect with County Road 99W. This would allow traffic rerouted to County Road 99W by the above location to access the Dunnigan Park site without traveling to the northern access road.	with 40 percent buildout of Dunnigan Park	PW	OT		
4.3-22	<i>Dunnigan Park Impacts to County Road 99W/County Road 89 Intersection</i> Traffic volumes at the County Road 99W/County Road 89 intersection are projected to result in operation problems at the intersection due to the skewed roadway alignment.	Eliminate the segment of County Road 89 south of County Road 99W and north of the project access road, thereby eliminating the skewed alignment of County Road 89 at County Road 99W and providing a tee intersection at the County Road 99W/Main Street intersection. The segment of County Road 89 which would be eliminated under this Mitigation 4.3-21(b) would need to be maintained in some fashion to provide access to the two existing residences. Access could be maintained by either a private driveway to the south from the County Road 89/ Access County Road intersection or to the north via a driveway connection to County Road 99W at the Main Street intersection.	with 40 percent buildout of Dunnigan Park	PW	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
4.3-23	<i>Dunnigan Park Impact on County Road 99W</i> The proposed northerly access road intersection with County Road 99W would result in inadequate spacing between this intersection and the County Road 99W/County Road 89 intersection.	Align the northerly access road intersection with the northerly segment of County Road 89 at County Road 99W.	at initial phase of Dunnigan Park	PW	OT		
4.3-24	<i>Aulman Property Impact on County Road 8/Interstate 5 Intersection</i> Unacceptable delays are projected at the County Road 8/northbound Interstate 5 ramp intersection with development of the site.	Provide multi-way stop sign control at the intersection, with signalization of the intersection predicated upon traffic signal warrants being met. This would reduce impacts to a less-than-significant level.	Signalize as warranted. Estimated threshold is 70% of GP buildout around CR8 interchange	PW	OT		
4.3-25	<i>Aulman Property Impact on County Road 8 Traffic Volumes</i> Projected traffic volumes would require left turn channelization on eastbound County Road 8 at the northbound ramp intersection.	Provide left turn channelization on County Road 8 at the northbound ramp intersection. Approximately 350 feet is available from the bridge structure to the ramp intersection to accommodate an eastbound left turn lane on County Road 8. Construction of left turn channelization at this location would require widening of County Road 8 which would in turn require widening of the fill area approach to the bridge structure. Assuming a 35 mph design speed for the left turn lane taper, the existing 350 foot distance between the ramp intersection and the bridge structure would provide a left turn lane storage length of approximately 150 feet, with the balance of the distance required for bay taper and transition area.	when left-turn volume exceeds 100 vph	PW	OT		
4.3-26	<i>Aulman Property Access Impact on County Road 8 Intersection Spacing</i> Intersection spacing on County Road 8 would be inadequate to accommodate projected traffic volumes and full access to the site at the County Road 90 intersection with County Road 8 would result in operational problems on County Road 8.	(a) Relocate the proposed access road intersection with County Road 8 to the west at the west boundary of the site. This would place the access road approximately 370 feet to the west of the existing County Road 8/County Road 90 intersection. (b) Extend County Road 90 to the southwest to intersect the north-south access road at the west end of the property. The County Road 90 extension should intersect this north-south roadway a minimum of 500 feet to the south of County Road 8, effectively eliminating the existing intersection with County Road 8.	at initial phase of Aulman project	PW	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
4.3-27	<i>Aulman Property Impact on County Road 8 Traffic Volumes</i> Traffic volumes generated by the site would require left turn channelization on County Road 8 into the site.	Provide left turn channelization on westbound County Road 8 at the primary access road to the project site.	at 25% buildout of Aulman project	PW	OT		
4.4-1	<i>Local Roadway Traffic-Generated Noise</i> Buildout of the Draft Dunnigan General Plan would cause significant increases in the noise level along the streets in Dunnigan and increase the area exposed to a traffic-generated L_{dn} in excess of 60 dB.	Policy D-N.3 of the Draft Dunnigan General Plan, which states that new development shall mitigate outdoor and indoor noise levels for existing residences that would be exposed to an increase in noise levels of five dBA or more and would be exposed to an L_{dn} in excess of 60dB. Because of the need for access, the provision of noise barriers would probably not be an effective mitigation technique. However, it would be possible to provide mitigation for primary outdoor use areas by building, or rebuilding, perimeter fences around these areas.	2	CDA	OT		
		For those residences that would be exposed to an increase in noise levels of five dBA or more and would be exposed to an L_{dn} in excess of 60dB, interior noise levels could be mitigated by assuring that the homes would be provided with some form of mechanical ventilation so that the windows could remain closed at the resident's option.	2	CDA	OT		
4.4-2	<i>Interstate 5 Traffic Generated Noise</i> With the buildout of the Draft Dunnigan General Plan noise levels along Interstate 5 and along some of the local roads would expose proposed land uses to noise levels in excess of the Draft Dunnigan General Plan's noise and land use compatibility guidelines.	Careful consideration should be given to developing projects, particularly along Interstate 5, which keep noise sensitive land uses as far as possible from the freeway. If traditional land use plans which locate residential development directly next to the freeway right-of-way are proposed, preliminary calculations indicate that even a 16-foot high soundwall would not reduce noise levels to a "clearly acceptable" level behind the wall. Land use plans that interpose less sensitive noise uses between the freeway and more sensitive noise uses should be encouraged. Locating noise sensitive uses farther from the roadway and incorporating smaller barriers or berms adjacent to the development could also achieve compatibility with the exterior noise environment.	2	CDA	OT		
4.4-3	<i>On-Site Noise Impacts</i> New development could generate on-site, non-transportation, noise levels that could have an impact on existing and future noise sensitive development.	Policy D-N.4, which Draft Dunnigan General Plan states that noise sensitive land uses shall not be allowed where the noise levels due to non-transportation noise sources will exceed an hourly L_{eq} of 55 dB between 7:00 AM and 10:00 PM and 50 dB between 10:00 PM and 7:00 AM. These noise levels should be lowered by five dB for simple tone noises or for noises consisting primarily of speech or music.	2	CDA	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
4.4-4	<i>Noise Impacts to Dunnigan Village</i> Noise levels on the project site would exceed an L_{dn} of 60 dB at some proposed noise-sensitive areas.	Noise levels along Road 88 and Road 6 could be mitigated by the construction of a soundwall/berm along these roads or by the construction of sound-attenuating side and rear yard fences. The appropriate attenuation could be achieved by an approximately seven-foot soundwall or fence. Mitigating noise levels for the single-family homes, and the school, exposed to an L_{dn} in excess of 60 dB due to the freeway, would be more difficult. It may be possible, depending on the grading plans, to construct a soundwall between these homes and the freeway. It may be more appropriate to simply eliminate the lots inside the future 60 L_{dn} contour and use a less sensitive land use or expand the park area. The school could be constructed if it were located closer to the 60 L_{dn} contour than to the 65 L_{dn} contour. The school could then be laid out so that the playgrounds would be shielded from excessive traffic noise. This would also require sensitivity to the construction of the buildings to keep the traffic noise from interfering with classroom activities.	2	CDA	OT		
		The medium-density/high-density residential development should be planned in a way that shields outdoor use areas from traffic noise. Proper site planning could achieve this goal. Additionally, acoustical reports would be required per Title 24 of the California Administrative Code before the approval of plans for this development that would show how interior noise levels would be kept at or below an L_{dn} of 45 dB.	2	CDA	OT		
4.4-6	<i>Noise Impacts to Dunnigan Park Project</i> Noise levels on the project site would exceed an L_{dn} of 60 dB everywhere and would reach as high as an L_{dn} of 75 dB at the Interstate 5 right-of-way line. There would be two proposed motels exposed to an L_{dn} in excess of 65 dB.	Before approval of the plans for the proposed motels, an acoustical report must be submitted which shows how interior noise levels would be kept at or below an L_{dn} of 45 dB in the motel rooms. Additionally, the motels should be laid out so that swimming pool and courtyard areas are shielded from the freeway noise by the hotel building.	2	CDA (applicant prepare report)	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
4.5-1 4.5-5	<i>Construction Period Impacts</i> Construction activities such as clearing, excavation and grading operations, construction vehicle traffic on unpaved ground and wind blowing over exposed earth would generate dust and particulate matter. This is a significant impact for Dunnigan Village and Dunnigan Park, and a less-than-significant level for the Aulman Property.	- To ensure that construction mitigation is utilized, final approval should not be given to any development project until the developer or contractor submits a satisfactory construction mitigation plan. This plan should specify the methods of control that will be utilized, demonstrate the availability of needed equipment and personnel, and identify a responsible individual who, if needed, can authorize the implementation of additional measures. The construction dust mitigation plan should, at a minimum, include the following: - Provision of equipment and staffing for watering of all exposed or disturbed soil surfaces at least twice daily, including weekends and holidays. An appropriate dust palliative or suppressant, added to water before application, should be utilized. - Watering or covering of stockpiles of debris, soil, sand or other materials that can be blown by the wind. - Regular sweeping of construction area and adjacent streets of all mud and debris, since this material can be pulverized and later re-suspended by vehicle traffic. - Enforcement of a speed limit of 15 miles per hour for all construction vehicles when off pavement. - All materials transported by truck will be covered or wetted down. - All inactive portions of the site will be watered with an appropriate dust suppressant, covered or seeded. - Suspension of earthmoving or other dust-producing activities during periods of high winds when dust control measures are unable to avoid visible dust plumes.	2 (for plan preparation) 4 (for plan implementation)	PW (for plan preparation) APP/PW (for plan implementation)	OT (for plan preparation) 4 (for plan implementation)		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
4.5-2	<i>Regional Air Emissions</i> Buildout of the Draft Dunnigan Area General Plan would result in increased regional emissions of pollutants through new vehicle travel and area-source emissions associated with residential and commercial uses.	• Natural Resources Policy D.C-11 -- Through the environmental assessment and review process, the County will encourage developers to limit fireplace installations in new projects, and encourage the use of EPA Phase II-Certified woodstoves and fireplaces, LPG-fired fireplaces, pellet stoves, or other devices which minimize emissions.	2	CDA	OG		
		• Circulation Policy D.C-10 -- Subdivision layouts should include safe and pleasant designs which promote pedestrian access to arterial and major collector streets, and consider the location of community services, such as schools, parks, and neighborhood shopping activity centers in the accessibility of their design.	2	CDA	OT		
		• Policy D-LU.7 -- The town shall maintain a comprehensive scale and a compact form. New development west of I-5 should include businesses, a school, parks, and local office of government services within easy walking distance of residences.	OG	CDA	OG		
		• Circulation Policy D-C.2.-- Facilities that promote the use of alternate modes of transportation, including bicycle lanes, pedestrian and hiking trails, park-and-ride lots and facilities for public transportation shall be incorporated into new development, and shall be encouraged in existing development.	2	CDA	OG		
		• Circulation Policy D-C.3 -- Public transit to surrounding communities, especially Woodland, shall be improved.	OG	CDA	OG		
		• Circulation Policy D-D.7 -- New development shall incorporate features that promote the use of alternate forms of transportation, including but not limited to items recommended by the Yolo-Solano Air Quality Management Plan.	2	CDA	OT		
		• Circulation Policy D-C.6 -- Policies and programs that promote the use of alternative forms of transportation shall be encouraged as a way to conserve air and energy resources. Public transit to surrounding communities, especially Woodland, shall be improved as a way to reduce dependence on the automobile and to conserve air and energy resources.	OG	CDA	OT		
		• Circulation Policy D-C.5 -- Residential development projects larger than ten dwelling units, and any commercial industrial projects of more than 10,000 square feet, shall show a "No Net Increase" in air quality emissions resulting from implementation of the project to the satisfaction of the Community Development Director. This may include the use of off-sets (such as retiring older vehicles from within the air basin), or the use of other Transportation Control Measures.	2	CDA	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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4.5-4	<i>Odor Impacts of Wastewater Facility</i> The wastewater facility could create odor impacts to Old Town.	The 1000 foot buffer zone between residential lotlines in Old Town and proposed wastewater facilities should be maintained. No odor-sensitive land uses (such as sludge drying) should be allowed to encroach within 1000 feet of residences in Old Town.	2	CDA	OT		
		The western border of the plant should be heavily landscaped to provide natural odor masking by vegetation.	4	CDA	OT		
		Phase 1A ponds can be placed at the east end of the proposed pond sites to increase the distance to Old Town for the period of initial operation.	2	CDA	OT		
		If sludge is to be air-dried on site, this activity should occur at the far eastern end of the facility, putting maximum possible distance between the drying sludge and residences. If odor problems still occur from sludge drying on-site, sludge should be removed to an off-site location or mechanical dryers should be used on-site.	7	PW (for first year) APP (thereafter)	QU (for first year) OG (thereafter)		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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4.5-6	<i>Regional Air Emissions of Specific Development Projects</i> Each of the specific development projects would increase regional emissions of pollutants through new vehicle travel and area-source emissions associated with residential and commercial uses. Emissions from the Dunnigan Village and Dunnigan Park projects would be significant.	Mitigation 4.5-2 proposes that individual developments be required to attain an air quality mitigation target of 20 percent or be required to utilize all feasible mitigation measures. The available strategies to reduce impact would vary for different project types. The Dunnigan Village project would be a mixed-use project. Mixed-use development is a strategy for reducing vehicle trips by placing residential uses within walking/biking distance from commercial facilities, schools, and parks. In addition to the general mitigation measures identified in Mitigation 4.5-2, the available strategies to reduce emissions from the residential portions of this project would include: • Providing secure bicycle storage facilities. • Providing electrical outlets to allow use of electrical equipment for landscaping and maintenance. • Providing electrical service capacity that would allow 220-volt service to all residential units. This would permit the future installation of electrical vehicle charging equipment at each residential unit. An additional strategy which should be implemented within the commercial portions of this project is as follows: • Providing secure bicycle parking at all commercial facilities. The Dunnigan Park project would be entirely commercial. The mitigation strategy for commercial uses identified for the Dunnigan Village project would also be applicable to the Dunnigan Park project. Additionally, the following mitigation strategies would be available: • Provide for the future installation of alternative fuels (compressed natural gas, electricity) refueling equipment within the auto fuel centers identified in the site plan. • Provide safe and attractive pedestrian access between the motel uses, restaurants and the movie theater/games uses.	2 2,4 2 2 2 2	CDA PW PW CDA CDA CDA	OT OT OT OT OT OT		

						VERIFICATION AND IMPLEMENTATION	
No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	Date Report Received	Notes
4.6-1	<i>Fire and Emergency Medical Service Impacts</i> The Dunnigan Fire Protection District would require additional equipment, facilities, and personnel to accommodate an acceptable level of service at buildout of the Draft Dunnigan General Plan.	- Policy D-S.17, which would require the developer of Expansion Area 2 to offer a site of at least one acre for a fire station as a condition of project approval. - The following equipment and facilities would be required to maintain adequate level-of service requirements at buildout of the Draft Dunnigan General Plan: - A fire station/ training facility. The facility would need to be located within two miles of all development to maintain a response time of four minutes. - A core group of six professional firefighters (four firefighters, one fire engineer, and one captain) to supplement the existing volunteer force. This core group would be sufficient for a three-person squad on duty 24 hours. - An additional pumper unit with a capacity of 1,200 gallons per minute. The following equipment would not be required to prevent an adverse physical change in the environment, although it would be necessary to provide an emergency medical response: - One emergency medical response squad vehicle with assorted equipment. - Equipment including a "jaws of life", hose, clothing, and breathing apparatus.	2 3 as needed	CDA CDA CDA/ Dunnigan Fire Protection District	OT OT OG		
4.6-3	<i>Police Protection Service Impacts</i> The Yolo County Sheriff's Department would be responsible for providing police protection services to the new on-site population. Increased population at buildout of the Draft Dunnigan General Plan would require additional personnel, equipment, and a sub-station to meet acceptable service standards.	- Buildout of the Draft Dunnigan General Plan would require: 6 additional personnel including 5 deputies and one sergeant. - Equipment for each officer, including leather goods, portable radio, baton, and weapon - Three vehicles (one vehicle for every two officers) - The establishment of a police sub-station of approximately one-half acre. - Buildout of Phase 1A would require an additional deputy, one vehicle, and equipment.	as needed	CDA/ Yolo County Sheriff's Department	OG		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
4.6-4	<i>Wastewater System Capacity</i> Implementation of the recommended buildout community wastewater system would build a sewer pipe line with capacity to serve new development adjacent to agricultural lands not zoned for future development.	Permanently exclude zoned agricultural lands from the district set up to operate the community wastewater system. (under Draft General Plan policies, land use entitlements would be denied to those parcels outside the district)	OG	CDA/ district set up to operate community wastewater system	OG		
4.6-5	<i>Cumulative Wastewater System Impacts</i> Construction of individual projects without the community wastewater plan for collection and treatment of wastewater would fail to address the existing groundwater quality problems in the General Plan Area.	Provide an alternative source of drinking water to the affected areas. Deeper water wells would likely provide better quality drinking water for the affected areas. Implementing the proposed water system described in the <i>Dunnigan Facilities Plan</i> would be an acceptable mitigation. Wells are discussed in the Water Supply section of this EIR.	6	CDA	OT		
4.6-6	<i>Land Requirements for Wastewater Disposal</i> The area required for the wastewater disposal ponds could vary between 35 acres to 110 acres, depending on the ability of the subsoil at the site to convey wastewater from the ponds. This could be more than the amount estimated by the Dunnigan Facilities Plan.	Require that the proposed wastewater disposal sites be evaluated for infiltration and the ability to accept the projected wastewater loading. This evaluation at the Dunnigan Creek site would extend to an area of about 110 acres and be completed prior to issuance of any entitlements for development. The area to be purchased at Dunnigan Creek site and the Phase 1A south site would be determined based on field work and analysis during the design of the wastewater ponds.	2	PW	OT		
		Purchase sufficient land, as part of Phase 1A, to permit the largest interim and ultimate wastewater disposal ponds to be constructed when needed.	2	CDA	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
4.6-8	<i>Groundwater Impacts</i> The implementation of the community water system would significantly increase the demand on the groundwater and could result in draw down, or lowering, of the water table. Draw down could have a significant adverse effect by reducing the annual yield of the groundwater below that required to provide potable water for the proposed level of development. In addition, groundwater contamination could affect the locations of proposed wells.	- Landowners and/or developers in the Draft Dunnigan General Plan Area shall acquire a firm annual water supply of at least 2,321 acre feet through 1) quantification of the perennial yield of the groundwater basin and/or 2) purchase of imported surface water from sources able to supply that water. The water supply plan should include consideration of conjunctive operation of the imported surface supply and the groundwater basin, including recharge of groundwater. - Prior to approval of any entitlements for development in the Draft Dunnigan General Plan urban service area that require a change in land use designation from the current (1981) General Plan, there shall be presented to the County for review and approval, - A hydrogeological report signed by a professional engineer, evaluating the groundwater conditions, including: - Recommended locations and minimum depth for production wells. - Recommended minimum depth for solid well casing. - Estimated perennial yield of the local groundwater basin. - Estimated draw down at all existing wells within 500 feet of the production well(s). - Estimated land subsidence expected for the overall level of water demand. - Statement that quality will meet the requirements for potable use as promulgated by the State of California at the time of the report.	6	CDA/PW	OT		
			2	PW	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
		2. Signed contracts for imported surface water needed to meet that part of the minimum water requirements at build out that cannot be met from groundwater. If the groundwater is shown to be inadequate for the level of development shown in the Draft Dunnigan General Plan and the shortfall cannot be made up with imported surface water, then the level of development must be reduced and some form of allocation of imported surface water (if any) and development density shall be made among the property owners in the General Plan Area. The project applicant shall offer for dedication to the County any wells, equipment and right-of-way used to supply water (groundwater and/or imported surface water) to developments; the project applicant, or the applicant's successor in interest, shall operate and maintain such wells, equipment and right-of-way to supply the development with potable water in accordance with the rules and regulations of the State and the County in perpetuity; County may accept the subject well, equipment and right-of-way for operation and maintenance as a part of a community water system; and, payment to the project applicant, if any, for capacity of the well exceeding the requirements of the development for which the well was installed will be determined by the County. The County is under no obligation to accept such well, equipment and right-of-way for operation and maintenance. - The project applicant shall determine the M&I water demands of their project that could be met using canal water and determine if that amount of water is available from the Water District. The project applicant shall, prior to receiving any entitlement for the development, submit to the County: - Preliminary plans and demand estimates for the use of canal water in the development. - Application for such M&I service to the Water District. Upon approval or denial of M&I water service by the Water District, the project applicant may then submit the development plans to the County for checking. - Well sites for the community water system should be sited in coordination with the County Department of Environmental Health, in order to avoid potential groundwater contamination, especially in area around County Road 8 and Interstate 5.	2 2 with final development application 2,6 2,6	PW (contracts to be obtained by APP) CDA CDA/PW PW/Dunnigan Water District (APP submits report) CDA/PW/ Department of Environmental Health	OT OT OT OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
4.6-9	<i>Impacts on Existing Wells</i> The implementation of the community water system could significantly increase the demand on the groundwater and could result in draw down, or lowering of the water table at existing wells.	The design engineer for each new well shall establish the depth of solid casing for that well to limit draw down at nearby shallow wells. New wells should not be located near enough to existing shallow wells to create drawdown problems.	2,6	PW	OT		
4.6-10	<i>Water System Growth-Inducing Impacts</i> The implementation of the water system in the Dunnigan Facilities Plan would build a water pipe line with capacity to serve new development adjacent to agricultural lands not zoned for future development.	(a) Do not build the 14-inch main. This would eliminate the County Road 8 properties from the community water system. These owners would then be required to provide their own fire protection storage and water supply. <i>Or</i>; (b) Permanently exclude zoned agricultural lands from the district set up to operate the community water system. (under Draft General Plan policies, land use entitlements would be denied to those parcels outside the district)	6 OG	CDA CDA	OT OT		
4.6-11	<i>Firefighting Water Supply</i> Fire flows for buildout of the Draft Dunnigan General Plan would be adequate. However, fire flows in Phase 1A could not be met with any well out of service.	<i>Either</i> of the following mitigations would reduce water system reliability impacts during Phase 1A to a less-than-significant level: (a) Change the design of Phase 1A to include an intertie pipeline between the two service areas, <i>or</i> (b) Increase the number of wells to permit the approved fire flow to be met with one unit out of service, <i>or</i> (c) Provide storage for the fire flow in each service area or development equal to that lost with one well out of service. The storage in the North 1A would be about 72,000 gallons for the commercial properties. The required storage in the South 1A would be about 64,000 gallons. This storage could be provided in ground-level bolted steel tanks located at a well site. Standby fire pumps would also be required to move the water into the distribution system. The exact size of the temporary storage tanks would be approved by the fire district during design of the water system.	6	CDA/PW	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
4.6-16	<i>Fire and Emergency Medical Service Impacts of Specific Development Projects</i> The Dunnigan Fire District would require additional equipment, facilities, and personnel to accommodate an acceptable level of service at buildout of specific development projects.	- Policy D-S.17, which would require the developer of Expansion Area 2 to offer a site of at least one acre for a fire station as a condition of project approval. - A detailed analysis of fire service needs would be required before approval of any development project. If any of the three specific projects were to be constructed independently, the Dunnigan Fire District may be required to enlarge or expand, or convert to a professional force.	2 2	CDA CDA/ Dunnigan Fire Protection District	OT OT		
4.7-1 4.7-6	<i>Seismic Hazards</i> Strong ground shaking and seismically-induced ground failures have the potential to cause significant adverse impacts in the Dunnigan Planning Area.	- Policy D-HZ.6, to enforce the seismic safety standards in the Uniform Building Code. This would include designing and constructing all new buildings to resist the effects of the maximum predicted shaking intensities (MM VI-VII) in compliance with 1991 requirements of the Code. - Retrofit older structures to standards in the most recent version of the Uniform Building Code. - Design subsurface utilities and pipelines to accommodate minor differential displacements in areas underlain by unconsolidated alluvial materials. - Require structures to be set back from the streambanks along Buckeye, Dunnigan, and Bird Creeks. For structures located adjacent to these streambanks, slope stability evaluations should be required during preliminary siting investigations.	3 OG 3 2	PW PW PW CDA/PW	OT OG OT OT		
4.7-2 4.7-7	<i>Geologic Hazards</i> Geologic hazards associated with expansive soils, differential settlement and erosion are considered to be less significant than those associated with seismic shaking and seismically-induced ground failures. The presence of expansive soils could cause potentially significant adverse impacts in the Dunnigan Planning Area.	- Require detailed evaluations of the soil conditions for all proposed development in the Planning Area. These evaluations should be conducted by a licensed geotechnical engineer. - In areas where it has been determined that expansive soils are present, employ standard engineering practices that will mitigate the effects associated with expansive materials. Specific recommendations regarding soil preparation, foundation types, and site drainage requirements made by the geotechnical engineer should be required as "conditions of approval" on all future development projects in the Planning Area.	3 4	PW PW	OT MO		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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4.7-3 4.7-8	<i>Differential Settlement</i> Differential settlement of unconsolidated natural soils and/or fill materials could cause potentially significant adverse impacts in the Dunnigan Planning Area.	- Excavation and recompaction of weak soils and fills in areas of proposed structures. - Construction of buildings on pier and grade-beam foundations that are supported at depth on well consolidated sedimentary materials.	4 4	PW PW	OT OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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4.7-4	<i>Erosion Impacts</i> Wind and water erosion, particularly associated with grading and construction activities during development could cause potentially significant adverse impacts in the Dunnigan Planning Area.	• Same as Mitigation Measure 4.5-1 (Construction Period Impacts). • Limit the amount of grading as much as possible during the design phase of specific projects. • Follow local grading ordinances and recommendations of the applicants' geotechnical engineer during grading operations. • All construction and grading should be restricted to the dry season, April 15 to October 15. All stabilization measures required to provide at least temporary protection against erosion during the rainy season would be installed by October 15. If grading operations cannot be completed before the commencement of the rainy season, temporary erosion control measures shall be designed to intercept sediments and debris that may be eroded from the development site. • Provide for erosion control on all bare areas during the potential rainy season (October 16 through April 14). • Revegetate exposed soils as soon as possible after completion of grading and construction activities. • Leave existing vegetation undisturbed until construction is actually ready to begin. • Immediately revegetate (using drought tolerant, native, fire/freeze tolerant plants) all disturbed areas or otherwise protect them from both wind and water erosion upon the completion of grading activities. • Direct runoff away from all areas disturbed by construction. • Restrict the operation of vehicles or the riding of horses off of designated roads and trails. • Construct temporary sediment basins, sediment ponds, and silt traps and basins where needed for use during project construction. • Limit the wet weather use of unpaved overflow parking areas to the extent necessary to avoid soil erosion and turf damage, and include inspection of the areas after each use to monitor their condition and ensure their readiness for the next time the areas are needed. • Minimize the use of heavy equipment near drainageways to prevent destruction of the local ecosystem and to prevent addition of sediment to the drainageways.	4	PW	MO		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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4.8-2	<i>Loss of Mature Oaks and Riparian Habitat</i> Remnants of native riparian habitat and mature oak trees could be lost by grading or other disturbances.	Policy D-C.1 of the Draft Dunnigan General Plan, which states that existing riparian habitat within the planning area should be protected.	OG	CDA	OG		
		Policy D-C.2 of the Draft Dunnigan General Plan, which states that oak trees be retained to the extent feasible.	2	CDA	OT		
		Policy D-C.3 of the Draft Dunnigan General Plan, which states that the County shall prohibit development in or damage to the existing riparian habitats along Buckeye, Bird, Dunnigan Creeks, and Azevedo Draw.	OG	CDA	OG		
		- All native trees with trunk diameters exceeding 12 inches and existing riparian habitat should be mapped as part of the application submittal for specific development plans. The plans should be reviewed to determine whether sensitive vegetation resources would be adversely affected by the proposed development plan, including construction-related impacts and long-term affects due to changes in drainage or irrigation. Treatment of trees to be preserved should be addressed as a tree preservation component of the Landscape Plan for the development. Standards contained in the tree preservation component of the Plan should include the following: - Trees to be retained should be identified in the field through flagging or other obvious marking methods prior to any grading. - Temporary fencing should be required along the outermost edge of the dripline of each tree or group of trees to be retained in the vicinity of grading to avoid compaction of the root zone and mechanical damage to trunks and limbs. - Paving within tree driplines should be prohibited or stringently minimized, using porous materials such as gravel, loose boulders, cobbles, wood chips or bark mulch where hardscape improvements are necessary for access in the vicinity of trees. - Trenching should be prohibited within tree driplines. Any required utility line poles within the dripline should be installed by boring or drilling through the soil. - Landscape irrigation within tree driplines should be minimized. Turf or any landscaping with high water requirements should be prohibited. Permanent irrigation improvements should be limited to bubbler, drip, or subterranean systems.	2	CDA	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
		• The existing creeks should be preserved and enhanced as open space features and wildlife corridors through the proposed expansion areas. In general, a minimum of 100 feet should be provided from the top of both sides of the creek bank. Where well-developed riparian cover is absent, a mosaic of native riparian and upland species trees and shrubs should be established along the creek corridors to provide protective cover for wildlife and enhance the habitat value of the setback area. The creek preservation and enhancement effort should be a required component of the Landscape Plan for specific developments encompassing existing creeks, and should be prepared by landscape architect familiar with native plants and restoration of riparian habitat. • The Dunnigan Facilities Plan should be revised to minimize disturbance to existing creek channels and riparian habitat, and avoid removal of mature oaks. This should include adjusting the location of the three large stormwater storage basins to protect segments of Dunnigan Creek. Where modifications to these features is unavoidable, a qualified wetland restoration consultant should be retained to prepare and implement a detailed Riparian Restoration and Enhancement Plan, providing adequate mitigation for potential impacts on riparian habitat, wetlands, and "waters of the U.S.". The plan should be prepared in consultation with and meet with the approval of the CDFG and the Corps. • The Draft Dunnigan General Plan should be revised to include a policy that states future landscaping along public right-of-ways, parks, schools, and private developments within the planning area should emphasize the use of native tree species to the extent possible. Suitable native species for use in landscape improvements include: valley oak (<i>Quercus lobata</i>), blue oak (<i>Quercus douglasii</i>), live oak (<i>Quercus agrifolia</i>), Fremont cottonwood (<i>Populus Fremontii</i>), California buckeye (<i>Aesculus californica</i>), and black walnut (<i>Juglans hindsii</i>).	2	CDA	OT		
			6	CDA/PW	OT		
			1	CDA	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes

4.8-3 4.8-10	<i>Loss Of Suitable Foraging Habitat For Swainson's Hawk</i> Proposed development would contribute to a reduction in existing and potential foraging habitat for Swainson's hawk.	- Policy D-C.4 of the Draft Dunnigan General Plan, which states that trees containing Swainson's Hawk nests shall be preserved. - Until the County-wide Habitat Conservation Plan (HCP) is completed, each applicant for specific development plans in the planning area as well as the applicant(s) for the wastewater treatment facility should be required to consult with the CDFG to determine whether potential impacts on Swainson's hawk foraging habitat would be considered significant. Each project should include a project-specific Swainson's Hawk Mitigation Plan where required by the CDFG. A qualified biological consultant should be retained to develop a plan which addresses on-site protection or replacement habitat for Swainson's hawk and complies with the latest CDFG Draft Mitigation Guidelines for Swainson's Hawks in the Central Valley of California. Aspects of any required mitigation plan should include the following: - The plan should be prepared in consultation with and with the approval of the CDFG, and provide for a habitat management agreement with the CDFG which will ensure a highly productive foraging habitat in perpetuity for Swainson's hawk. - Replacement habitat could be established by obtaining a conservation easement over suitable agricultural lands, specifying acceptable and unacceptable crop types, prohibiting rodent control, and possibly including management requirements for habitat enhancement such as planting and maintenance of fence rows. - A copy of the fully executed habitat management agreement with the CDFG should be submitted to the Yolo County Community Development Agency prior to the issuance of any construction permit or initiation of site improvements, whichever occurs first. - Upon effectuation of any County- and CDFG-approved Habitat Conservation Plan which provides a habitat management and conservation program for threatened and endangered species (including Swainson's hawk) and requires payment of developer mitigation fees for implementation, each applicant may elect to pay the specified fees prior to issuance of any construction permit or initiation of site improvements, whichever occurs first. Payment of these fees shall be in lieu of entering into a separate habitat management agreement with the CDFG.	OG	CDA	OG		
			2	CDA	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
		The Dunnigan Facilities Plan (in the land purchase/irrigation disposal requirements for the wastewater treatment facilities) should be revised to include provisions for adequate mitigation for loss of Swainson's hawk foraging habitat. A possibility includes expanding the proposed disposal of treated effluent to provide for replacement of habitat lost due to creation of effluent treatment and storage ponds. The County should consult with the CDFG to provide for adequate replacement foraging habitat as a component of the Facilities Plan and expanding the total acreage of irrigated alfalfa fields as necessary to meet mitigation requirements. Long-term monitoring and management of water quality should be provided as part of the mitigation program for the Facilities Plan to minimize exposure of wildlife to high levels of metals	6	CDA	OT		
4.8-4	<i>Impacts on Other Special-Status Species</i> Essential habitat for other special-status species does not occur in the planning area. However, new colonies of special status species could be established in the future.	As a condition of project approval for individual projects, a pre-construction survey should be conducted by a qualified biologist on parcels with large trees adjacent to riparian and marshland habitat or with suitable ground-nesting sites. Possible nesting species of particular concern include Swainson's hawk, northern harrier, black-shouldered kite, and burrowing owl. If nests are encountered, an appropriate buffer zone should be established based on topography, vegetative screening, and adjacent habitat, and construction activities should be prohibited within this zone during the nesting season (nesting season is typically from May through August). Representatives of the CDFG and USFWS should be consulted to determine whether the nest tree or burrow should be protected and a permanent buffer established to ensure future use or whether the nest site may be destroyed once the young have fledged in late July.	2	CDA	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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4.8-5	<i>Loss and Modification to Wetlands</i> Proposed development could result in modifications to the existing creeks and associated wetlands in the planning area.	- Policy D-C.1 of the Draft Dunnigan General Plan, which states that existing riparian habitat within the planning area should be protected. - Policy D-C.3 of the Draft Dunnigan General Plan, which states that the County shall prohibit development in or damage to the existing riparian habitats along Buckeye, Bird, or Dunnigan Creeks. - The existing creek channels and adjacent uplands should be retained and enhanced as open space features as part of specific development plans and drainage facility improvements in the planning area. Where modifications to these features are unavoidable, a qualified wetland restoration consultant should be retained to prepare and implement a detailed riparian restoration and enhancement plan, providing adequate mitigation for potential impacts on riparian habitat, wetlands, and "waters of the U.S.". As necessary, the plan should be prepared in consultation with and meet with the approval of the CDFG and the Corps. Protection and enhancement of these features should include the following: - Riparian vegetation should be retained and enhanced to the maximum extent possible along the existing channels, with development restricted a minimum of 100 feet from the top of the channel bank. - Restoration plans should include detailed landscaping plans using exclusively native species to establish a mosaic of trees and shrubs along the restored channel segment. - Any required roadway crossings should be designed to minimize the extent of fill and disturbance to creek channels. Culverts used at channel crossings should be adequately sized to permit movement of larger wildlife through them, with a minimum diameter of 36 inches, and should be free of any impediments (such as concrete drop structures) which would impede the movement of smaller amphibians and fish. - Any proposed modifications to the creek channels in the planning area should be coordinated with representatives of the CDFG and Corps to ensure that the concerns and possible requirements of both agencies can be easily incorporated into the proposed plans. Jurisdictional determinations and appropriate mitigation may be required subject to the provisions of Section 404 of the Clean Water Act and Sections 1601-1606 of the CDFG Code. - The Azevedo Draw area should be eliminated as one of the alternative sites for wastewater disposal facilities in the Dunnigan Facilities plan to avoid disturbance to the wetlands in this location. - Detailed erosion control plans should be required for specific development plans to minimize sedimentation in the creek channels in the planning area. The plan should contain detailed measures to control erosion of stockpiled earth and exposed soil, provide for revegetation of graded slopes before the first rainy season following construction, and specify procedures for monitoring of the plan's effectiveness.	OG	CDA	OG		
			OG	CDA	OG		
			2	CDA	OT		
			2	CDA	OT		
			6	CDA	OT		
			3	PW	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
4.8-6	<i>Loss of Mature Oaks and Riparian Habitat in Dunnigan Village</i> As currently proposed, residential development would extend up to the edge of the Dunnigan Creek corridor, would require several creek crossings, and may adversely affect several mature oaks along the creek.	Same as Mitigations 4.8-2 and 4.8-5.					
4.8-7	<i>Disturbance to Red-Tailed Hawk Nest</i> Development could result in destruction of the Red-Tailed Hawk Nest on the site.	The red-tailed hawk nest tree on the site should be preserved and incorporated as part of the open space use along Dunnigan Creek. Mitigation Measure 4.8-4 would provide for a pre-construction survey of the site to determine whether the nest tree is in active use if and when development of the site is to be initiated. If the nest tree is in active use, a minimum setback distance of 300 feet should be established around the tree, and all construction-related activities prohibited within this "no-disturbance zone" until a qualified biologist has determined 1) either no young are present or 2) the young have successfully fledged. The "no-disturbance zone" should be staked and flagged at 50-foot intervals with bright flagging, and all construction personnel instructed to remain outside the area at all times until notified entry is permitted. Authorization to proceed with construction within the "no-disturbance zone" should be made by the County after receipt of a written report from the qualified biologist that the young have successfully fledged or breeding has not been successful that year.	3	CDA	OT		
			4	CDA	MO		
4.8-8	<i>Modifications to Riparian Habitat in Dunnigan Park Project</i> The proposed project includes provisions for a park along Dunnigan Creek, would require one roadway crossing, and does not specify information on vegetation enhancement along the creek.	Same as Mitigations 4.8-2 and 4.8-5.					

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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4.9-1	<i>Detention Basins West of County Road 88 Hazards</i> Construction of the two on-line detention basins west of County Road 88 would significantly increase the flood hazard to current and future residents located directly downstream of the proposed basins.	● Include the following requirements in the permit and design process for the basins: ▫ Basins and outlet works should be designed by a Registered Civil Engineer to provide the level of flood protection specified for the Planning Area. ▫ Embankments should be designed by a registered Geotechnical Engineer to current geotechnical standards for water impoundments. ▫ All plans and specifications should be reviewed by the Division of Dam Safety, County Staff and undergo peer review by a Registered Geotechnical Engineer retained by the County for that purpose. ▫ Maintenance procedures should be detailed by the design engineers and an Operations and Maintenance Manual for the basins written at the time of design. This manual should include, at a minimum, inspection procedures for the embankments and maximum permitted levels of sediment deposition prior to mandatory basin cleaning. ▫ Operation and maintenance should be carried out by the County or other entity charged to do so.	6	PW	OT		
			7	PW	OG		
4.9-2	<i>Detention Basin Hazards to Residential Properties</i> Construction of detention basins in close proximity to residential uses would increase health and safety hazards.	● Include the following requirements in the permit and design process for the basins: ▫ Fence the detention facilities per County rules pertaining to open channels. ▫ Provide a slope in the bottom of the basin of at least one percent to a low-flow channel. Construct the interior basin side slopes at four feet horizontal to one foot vertical or flatter. ▫ A detention basin acceptable for public operation and maintenance must be at least 15 acre-feet in volume and meet current geotechnical requirements. ▫ Detention basins with a capacity of less than 15 acre-feet shall be privately maintained by the property owner. ▫ Maintenance procedures should be detailed by the design engineers and an Operations and Maintenance Manual for the basins written at the time of design. This manual should include, at least, frequency of weed control and required routine maintenance to control standing water in the basin.	6	PW	OT		
			7	PW	AN		
			6	PW	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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4.9-3	<i>Flooding from Dunnigan Creek</i> Proposed Phase 1A North and ultimate wastewater treatment ponds could be subject to flooding from Dunnigan Creek during a major storm.	• Policy D-LU.8 -- New development shall not be allowed unless adequate water, sewer and drainage facilities are available to serve such new development. • Policy D-HZ.3 -- Any project proposed in a flood zone shall provide detailed mitigation plans for the protection of lives and property from flooding, meeting federal flood insurance standards. • Include the following requirement in the permit and design process for the ponds: ▫ Design the wastewater treatment pond site to withstand a 100-year flood on Dunnigan Creek without inundation of the ponds nor flow of pond contents off the site into the creek.	2	CDA	OT		
			2	CDA/PW	OT		
			6	PW	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
						Date Report Received	Notes
4.9-4	<i>Bird Creek Weir Impacts</i> Construction of the proposed weir structures in Bird Creek would direct significant quantities of surface runoff onto adjacent private property and would require construction in the Bird Creek channel.	• Policy D-C.3 -- The County shall prohibit development in or damage to the existing riparian habitats along Buckeye, Bird, Dunnigan Creek, and Azevedo Draw east of County Road 89. • Policy D-HZ.1 -- New development shall be prohibited in areas with sensitive environmental characteristics, or where natural or human-caused hazards pose a significant threat to safety and property. • Conservation Program 26 -- The County will adopt a riparian corridor preservation program. Such a program should include the following components: ▫ A list of maintenance requirements and procedures for property owners that front along creek corridors. ▫ A list of maintenance requirements and procedures for the County's use of the Dunnigan Creek open Space area. ▫ Vegetation protection and removal standards and the penalty for non-compliance. The following additional mitigation measures in the permit and design process for the properties along Bird Creek would further reduce hydrology and drainage impacts: (a) <i>Either</i> provide flood protection against a 100-year flood on Bird Creek for the developed properties by use of fill to raise site elevation at least one foot above the 100-year water surface, <i>or</i> (b) Use levees to protect the property from the 100-year flood. Levees shall extend above the 100-year water surface, as specified by FEMA. Either obtain a flowage easement on the property to the south or obtain land rights to permit the diversion of water out of the creek onto that land. (c) Use a levy or other non-intrusive flood control device for Bird Creek, rather than structures such as weirs that would require construction within the creek itself. <i>Either</i> implementation of mitigation measures (a) and (c) <i>or</i> mitigation measures (b) and (c) would reduce bird creek weir impacts to a less-than-significant level.	OG OG 3 2	CDA CDA CDA PW	OG OG OT OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

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4.9-5	<i>Flood Impacts</i> Some of the properties in the Planning Area are shown in the FEMA report to be subject to inundation during a 100-year storm. The FEMA 100-year floodplain is approximate and not an overall good indicator of the actual flooding and ponding.	• Policy D-HZ.3 -- Any project proposed in a flood zone shall provide detailed mitigation plans for the protection of lives and property from flooding, meeting federal flood insurance standards. • Policy D-HZ.1 -- New development shall be prohibited in areas with sensitive environmental characteristics, or where natural or human-caused hazards pose a significant threat to safety and property. • Policy E.1 -- In all expansion areas, new roads and drainage systems needed to serve new development shall be provided by the developer • Policy D-C.1 -- The area along Dunnigan Creek, west of Interstate 5 which is located in the pre-construction 100-year flood zone, as determined from the approved development plans, shall be placed in an open space easement. Uses within this easement shall be limited to recreation and circulation improvements connecting the area south of the creek to the Hardwood subdivision • Policy D-HZ.2 should be revised to read as follows: Any development proposal in the town shall include a drainage plan. The drainage shall provide facilities, including detention basins, to limit the post-development 100-year peak flow to the pre-development value at the east boundary of the planning area.	3 OG 2 2 1	PW CDA CDA/PW CDA CDA	OT OG OT OT OT		
4.9-6	<i>Construction Impacts</i> Erosion during construction would adversely affect water quality and riparian habitat in downstream channels. In addition, construction of detention basins on Dunnigan Creek would have a significant impact on adjacent properties.	• Policy D-C.3 -- The County shall prohibit development in or damage to the existing riparian habitats along Buckeye, Bird, Dunnigan Creek, and Azevedo Draw east of County Road 89. • Include the following requirements in the permit and design process for the properties along Bird Creek: ▫ Projects on sites smaller than five acres shall apply for County approval of an Erosion Control Plan complying with County Standards and shall comply with the terms and conditions of the approved plan. • County shall require that the SWPPP include a BMP for Dust Control, As defined in <i>California Storm Water Best Management Practice Handbooks</i>, Stormwater Quality Task Force, p. 5-25.	OG 2 2	CDA PW PW	OG OT OT		
4.9-7	<i>Water Quality</i> Water quality would be adversely impacted by the occupancy and/or operation and maintenance of the developed properties.	• Policy D-S.19 -- Requires a SWPPP for the Dunnigan Area, as defined in the NPDES Permit. The strategy would address residential, commercial and municipal programs. The strategy should insure that all regulated industries have and comply with their SWPPP.	3	PW	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

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4.9-8	<i>Flood Protection and Phase 1A Proposed Improvements</i> The proposed Dunnigan Facility Plan Phase 1A drainage improvements in the residential expansion area (Dunnigan Village) would not provide adequate flood protection to Expansion Areas 1, 2, or 3 against the 100-year flood in Dunnigan Creek.	- Policy D-LU.8 -- New development shall not be allowed unless adequate water, sewer and drainage facilities are available to serve such new development. - Policy D-HZ.3 -- Any project proposed in a flood zone shall provide detailed mitigation plans for the protection of lives and property from flooding, meeting federal flood insurance standards. (a) Include the following requirement in the permit and design process for Expansion Areas 1 and 2: - The detention basin in the residential expansion area as detailed in the Dunnigan Facilities Plan shall have a capacity of 120 acre-feet and be shown to be capable of reducing the peak 100-year flow to 1,000 cfs in Dunnigan Creek at Freeway Interstate 5, <i>or</i>, - the design and construction shall include additional detention basins as needed to reduce the peak 100-year flow to 1,000 cfs at Interstate 5, <i>or</i>, - flood protection shall be provided for that peak 100-year flow in Dunnigan Creek that results from use of only the CalTrans borrow pit detention basin. (b) Development of Commercial Highway Expansion Area (Dunnigan Park) shall be contingent on: - completion of work on upstream flood control works to provide a reduced peak 100-year flood flow of 1,000 cfs, - completion of on-site improvements to provide protection as required by local codes and federal flood insurance standards, and - completion of the bridge for County Road 99W.	2	CDA/PW	OT		
			3	PW	OT		
4.9-9	<i>Dunnigan Village Detention Basin</i> The proposed on-site detention basin on the Dunnigan Village project site would significantly encroach on the proposed residential improvements shown on the Dunnigan Village development plans. This would preclude the basin construction or limit development on the site.	- Policy D-LU.8 -- New development shall not be allowed unless adequate water, sewer and drainage facilities are available to serve such new development. - Policy D-HZ.3 -- Any project proposed in a flood zone shall provide detailed mitigation plans for the protection of lives and property from flooding, meeting federal flood insurance standards. - Same as Mitigation Measure 4.9-8(a).	2	CDA/PW	OT		
			3	PW	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

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4.9-10	<i>Disposal of Excavated Earth</i> The proposed Phase 1A drainage improvements at Dunnigan Village would require the excavation of 64,000 cubic yards of earth from the existing CalTrans borrow pit. No provision has been made for a disposal site for this material in the Phase 1A project description.	Policy D-LU.8 -- New development shall not be allowed unless adequate water, sewer and drainage facilities are available to serve such new development.	2	CDA/PW	OT		
		Policy D-HZ.3 -- Any project proposed in a flood zone shall provide detailed mitigation plans for the protection of lives and property from flooding, meeting federal flood insurance standards.	3	PW	OT		
		- Include the following requirements in the permit and design process for the Dunnigan Village: - The ultimate flood protection facilities shall be designed as part of Phase 1A, including the embankments for all required detention basins. - All rights-of-way for all required detention basins shall be acquired and deeded to the County as a part of Phase 1A. - The earth excavated from the detention basin on the Dunnigan Village site shall be used on the Dunnigan Village site or shall be used to construct earth embankments for the required detention basins.	2	PW	OT		
4.10-1	<i>Transformation of Town Character</i> The Dunnigan area would be transformed visually by development replacing flat, open farmland.	Landscaping policies that are designed to minimize visual impacts, such as requiring landscaping in all development projects subject to Site Plan Review (D-D.2), requiring landscaping plans for on-site detention basins (D-D.5), screening industrial areas from Interstate 5 (D-LU.25), providing landscaped open space for multi-family residential sites (D-D.22, D-D.23), and requiring landscaping for all new commercial development (D-D.35).	OG	CDA	OG		
		Tree planting and preservation policies, such as requiring trees in landscaping plans for development projects subject to Site Plan Review (D-D.2), planting trees in single family residential lots (D-D.16) and in public right-of-ways (D-D.13), preserving mature trees in single family residential lots (D-D.17), incorporating street and front yard trees in very low density single family residential areas (D-D.20), incorporating mature trees into the design of commercial projects (D-D.29), requiring street trees for all new commercial development, including parking lots (D-D.34, D-D.35), requiring street trees in mixed use developments (D-D.42), retaining appropriate trees within the public right-of-way, planting new street trees according to the policies and procedures of the County Master Street Tree Plan and Street Tree ordinance and protecting oak trees (D-C.2); requiring street trees in the new town center (D-Circ.5); and the continuation of Conservation Program 24, in which the County continues its efforts to adopt a tree planting and preservation ordinance.	OG	CDA	OG		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

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		- Setback policies, including setback requirements from Interstate 5 (D-LU.12, D-D.3), setbacks for Expansion Area 5 (D-LU.30), and setbacks for commercial parking lots (D-D.34). - Policies to ensure the continuation of the open, rural qualities of the community, including policies that preserve and protect open space and agricultural lands, such as protecting agricultural land from conversion (D-LU.27), prohibiting agricultural subdivisions (D-LU.28), prohibiting conversion of lands currently in Williamson Act contract (D-LU.29), implementing Agricultural Conservation Easements (D-LU.31), and protecting the Dunnigan Creek floodplain (D-C.1) and other riparian zones (D-C.3). - Other policies, such as those restricting abandoned vehicles (D-D.4), screening commercial trash (D-D.27), screening commercial rooftop and ground-level mechanical equipment (D-D.30, D-D.31), and maintenance of properties (D-C.7). - Architectural review plans for residential, commercial, and mixed (Town Center) uses for all projects, including guidelines for architectural elements and building materials. This would help to ensure that the present character of Dunnigan is maintained, and that new residential development emulate the character of "small rural towns" as per policy D-D.13. These plans should be reviewed by an architectural and sign review board that is suggested by the Yolo County General Plan Policy LU 74. (The architectural and sign review board should enforce Policy LU 80 of the Yolo County General Plan, which encourages early California architectural style in public and quasi-public buildings.) - Landscaping plans, including plant landscaping around the periphery of project sites at an initial or early phase of project implementation. These plans should include the number and type of trees and other vegetation planned. Where possible, a landscape plan should consider the planting of trees in a grid pattern to simulate the effect of rural agricultural production, especially along freeways or in public road setback areas. (Landscaping is already required in these areas as discussed in the Yolo County General Plan (CON 27). Guidelines should emphasize trees with large spreads in and around parking lots, to provide shade. All landscaping plans would be evaluated during the Site Plan Review by the County. When formulating landscaping plans, it would be essential to take long-term maintenance requirements into account. - Specific interpretive guidelines to Figure 10 in the Draft Dunnigan General Plan (and referenced in Community Design Policies D-D.3) should be developed, including number, spacing, and types of trees and vegetation required, and setback distances. These requirements should include recommendations on mitigating the visual effects of any noise barriers that might be required.	OG	CDA	OG		
			OG	CDA	OG		
			OG	CDA	OG		
			2	CDA	OT		
			2	CDA	OT		
			1	CDA	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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		• Parks and other potential open space areas should be placed to maximize their potential to act as a buffer between developments and provide visual separation and soften the appearance of development. This placement should be evaluated during Site Plan Review by the County. • Agricultural setbacks should be landscaped. A principal objective of a landscape plan should be to ensure that agricultural setback areas help make a visual transition between the rural land uses and new development. Possible landscaping could include fruit or vegetable gardens to simulate the appearance of cultivated row crops, or fruit trees grown in a row pattern. • The maximum building heights of housing units on the western side of Expansion Area 2 should be limited to one story, to minimize the abruptness of the urban-rural transition.	2	CDA	OT		
			2	CDA	OT		
			2	CDA	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

No.	Impact	Mitigation Measure	Phase	Responsible Person/ Agency	Frequency of Monitoring/ Reporting	VERIFICATION AND IMPLEMENTATION	
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4.10-2	<i>Light and Glare</i> New sources of light and glare would be introduced to the area due to increased development.	- Policy D-D.6, which states new development be designed to minimize conflicts and potential nuisance problems between land uses, including light and glare; policy D-D.28 that requires hooded lights on commercial sites and a photometric plan for new development; policy D-D.46 that requires hooded lights on industrial sites and a photometric plan for new development; landscaping policies that are designed to place trees between development and Interstate 5 (such as D-D.3); setback policies designed to provide buffer zones between sources and receptors of light and glare (including D-LU.12 and D-D.3), and guidelines on sign programs (D-D.10). - Vegetative cover should be designed to protect residential areas from vehicle headlights. This could include placing vegetation between homes and expected sources (such as intersections and Interstate 5) and choosing cover that can provide a thick cover at headlight level (if possible). The effectiveness of this landscaping should be analyzed during the Site Plan Review by the County. - Outdoor night lighting should be focused downward and / or shielded. - Roadway and pavement surfaces should be selected to minimize upward reflected light. - All outdoor lighting should be turned off after 11:00 PM if not in use unless needed for safety and security. Safety and security lighting (except street lighting) can usually be at lower levels when the area is not at use. - Choose lighting elements that can be recessed within their fixtures to prevent glare. - A lighting design should attempt to conceal lights to avoid glare. When concealing lights, avoid placing lights too close to an object to avoid reflected glare. - Lighting should be selected to avoid high-angle, high-candela distribution. - Lighting fixtures should be selected that can be shielded, if a potential problem exists, after installation. - Outside parking areas should be designed to ensure that car headlights do not interfere with the surrounding areas, either by orientation or screening. Design parking lots to minimize vehicle headlights from shining into residential areas or major roads. The effectiveness of this should be analyzed during the Site Plan Review by the County.	OG	CDA	OG		
			2	CDA	OT		
			7	PW	OT		
			2	CDA/PW	OT		
			7	CDA	OT		
			2	CDA/PW	OT		
			2	CDA/PW	OT		
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			2	CDA/PW	OT		
			2	CDA/PW	OT		

HERITAGE OAKS PHASE II MITIGATION MONITORING MATRIX

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4.10-3	<i>Disruption of Scenic Vistas</i> The Dunnigan area has a natural visual resource in the views to the Dunnigan Hills to the west, and views of the Sutter Buttes to the west on clear days. New development will interfere in existing visual corridors, especially from Interstate 5.	- For development adjacent to Interstate 5, site plans should be designed to maximize visual corridors to the Dunnigan Hills or Sutter Buttes. Potential options include: - Leaving visual corridors open of development, allowing uninterrupted views. - Creating a "visual gradient" between Interstate 5 and the Dunnigan Hills or Sutter Buttes. While buildings and trees will easily block off views if placed next to the Interstate, buildings placed some distance away will allow the Hills or Buttes to be seen above them. This effect can be maximized by placing open space (such as parks or schoolyards) or shorter buildings closer to Interstate 5, while placing larger buildings farther back. Larger buildings could also be clustered into specific areas of the site, leaving other portions of the site open as visual corridors. - On some developed areas this mitigation would not be feasible due to site constraints. For example, this EIR recommends sound walls to be placed next to Expansion Area 1 which would completely block views of the Dunnigan Hills. Larger buildings would also not be appropriate nearby agricultural land, as it would create an abrupt visual transition from urban to rural.	2	CDA	OT		
4.10-4	<i>Construction Impacts</i> The Draft Dunnigan General Plan will induce development which could continue for years.	- Landscaping should be installed and maintained around the perimeter of project sites as an initial phase of project implementation, if possible. - Construction of adjacent sites should be scheduled to occur concurrently if possible, to minimize the amount of time visual impacts will occur.	4	CDA	OT		
			2	CDA	OT		
4.10-5	<i>Facilities Improvements</i> Facilities improvements, such as new drainage, wastewater, and water systems, would alter the existing character of the area, and could potentially result in the obstruction of scenic vistas.	- The water tank should be painted with a matte finish with low reflectivity, in a color that would blend in with the Dunnigan Hills. - Detention ponds should be designed, if possible, to be used as public open space and parkland in dry times. This could include the construction of trails and pathways. This may not be possible if detention ponds are included into agricultural buffer zones, as these areas are designed to restrict public access. This is described in 4.1-2.	4	CDA	OT		
			6	CDA	OT		
4.10-6	<i>Dunnigan Village Visual Impacts</i> The project would affect existing views of Dunnigan Creek. In addition, the project would not conform to Draft Dunnigan General Plan policies to dedicate acreage for a school and park, which would provide views of open space from Interstate 5.	- Conform with policies D-S.7 and D-S.9 by locating the school and park sites, with correct acreages, outside the flood zone. - The area along Dunnigan Creek on the project site that is located in the 100-year flood zone be placed in an open space easement as a condition for new development. - Conform with Policy D-LU.30 by redesigning site plans to eliminate development within 100 feet of agricultural areas.	2	CDA	OT		
			2	CDA	OT		
			2	CDA	OT		

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4.11-2	Dunnigan Fire District Fiscal Impacts Based on existing sources of revenue, the Dunnigan Fire District would not generate sufficient revenues to provide recommended service levels to the Dunnigan planning area. As this could create a hazardous physical situation, this is a significant impact	(a) Generate a Supplemental Funding Source for Fire Protection. A benefit assessment district is one mechanism that could be created for purposes of funding the Dunnigan Fire District. Benefit assessments are levied upon real property within the County on the basis of a benefit formula. Such assessments can be levied upon a local area or, if appropriate, levied on a countywide basis. No voter approval is required to impose benefit assessments although a 50 percent protest of affected property owners can prevent the levy. Given that the estimated fire protection shortfall is approximately \$224,380 annually, this would amount to about \$193 per year for each new household in Dunnigan if the assessment is levied on the Draft Dunnigan General Plan planning area, for example. Potential for creating a supplemental financing mechanism should be addressed by the County in the form of a Public Facilities/Infrastructure Financing Plan that could be attached to the Draft Dunnigan General Plan. It is important that the County develop guidelines for annual operating and maintenance as well as capital expenditures if the County intends to allow development in its unincorporated areas such as Dunnigan. (b) Same as Mitigation Measure 4.11-1(c).	3	CDA	OT		
4.11-3	Park Maintenance Impacts Currently, there is no existing revenue source for park maintenance in Dunnigan. Park maintenance expenditures would create a minor annual fiscal deficit. As unmaintained parks can represent physical hazards in an urban setting, this is a potentially significant environmental impact.	(a) Utilize Benefit Assessments for Park Maintenance Activities that Confer Benefit to Property. Maintenance services, including park maintenance, can be funded with benefit assessments levied upon real property within the County on the basis of a benefit formula as described above. The County should evaluate existing benefit assessment districts and add new districts in order to fund the maximum amount of maintenance activities from benefit assessments. County Service Area 11 could be expanded to provide park maintenance. The potential for creating a supplemental financing mechanism for park maintenance should be addressed by the County in the form of a Public Facilities/Infrastructure Financing Plan. (b) Same as Mitigation Measure 4.11-1(c).	3	CDA	OT		
4.11-8	Dunnigan Village Fiscal Impacts The Dunnigan Village project generates a General Fund surplus. However, the project may not generate revenues sufficient to offset fire protection and park maintenance. As this could lead to physical impacts, this is a potentially significant impact.	Numerous mitigations available, as discussed in Mitigation 4.11-5 of the EIR.	3	CDA	OT		