

Initial Study

Lake Wildwood Dredging

Nevada County, California

To:

CEO – Alison Lehman	CA State Lands Commission
Assistant CEO – Caleb Dardick	Central Valley Flood Protection Board
COB – Jeff Thorsby	Central Valley Regional Water Quality Control Board
District 4 Supervisor – Sue Hoek	CA Governor’s Office of Planning & Research - State Clearinghouse
Principal Planner	Penn Valley Fire
CDA Director – Trisha Tillotson	Rough & Ready Chamber of Commerce
Assessor – Rolf Kleinhans	NASQMD
District 4 Planning Commissioner– Mike Mastrodonato	North Central Information Center
Department of Public Works – Pat Perkins	Tsi Akim Maidu
Fire Planner – Dan Collins	Nisenan Rancheria
Building Department – Nicholas McBurney	United Auburn Indian Community
Environmental Health – David Huff	Washoe Tribe of Nevada and California
Agricultural Commissioner	Native American Heritage Commission
Nevada Irrigation District	Shingle Springs Band of Miwok Indians
CA Department of Fish and Wildlife	Colfax-Todds Valley Consolidated Tribe
FEMA Region IX	Friends of Nevada City
Maureen Collins	Bear Yuba Land Trust
California Native Plant Society	General Plan Defense Fund
Kevin Johnston	Penn Valley Community Foundation
Sierra Club – Sierra Nevada Group	Penn Valley Municipal Advisory Council
Nevada County Recreation – Erika Seward	Nevada County Counsel – Doug Johnson*
Penn Valley Area Chamber of Commerce	Nevada County Counsel – Sims Ely*
CA Department of Water Resources	Department of Toxic Substance Control
EPA	Parcels within 300 feet of the lakebed and 500 feet of the disposal sites
US Fish and Wildlife Service	Sierra Streams Institute
Army Corps of Engineers	SYCRL

**receives full report, others receive NOA only with report available online*

File Number: PLN23-0161; CUP23-0011; MGT23-0039; MGT23-0040; MGT24-0002; EIS23-0006

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Zoning Districts: Single Family Residential-Planned Development (R1-PD); General Agricultural 10 acre minimum (AG-10)

General Plan Designations: Planned Residential Community (PRC); Rural 10 acre minimum (RUR-10)

Project Location: Western Nevada County, within and adjacent to the Lake Wildwood lakebed in Penn Valley (APN 050-020-044); 12440 Bosa Drive, Rough and Ready, CA (APN 052-370-037); and 12186 Hilaire Road, Rough and Ready (APN 052-360-001). See Figure 1.

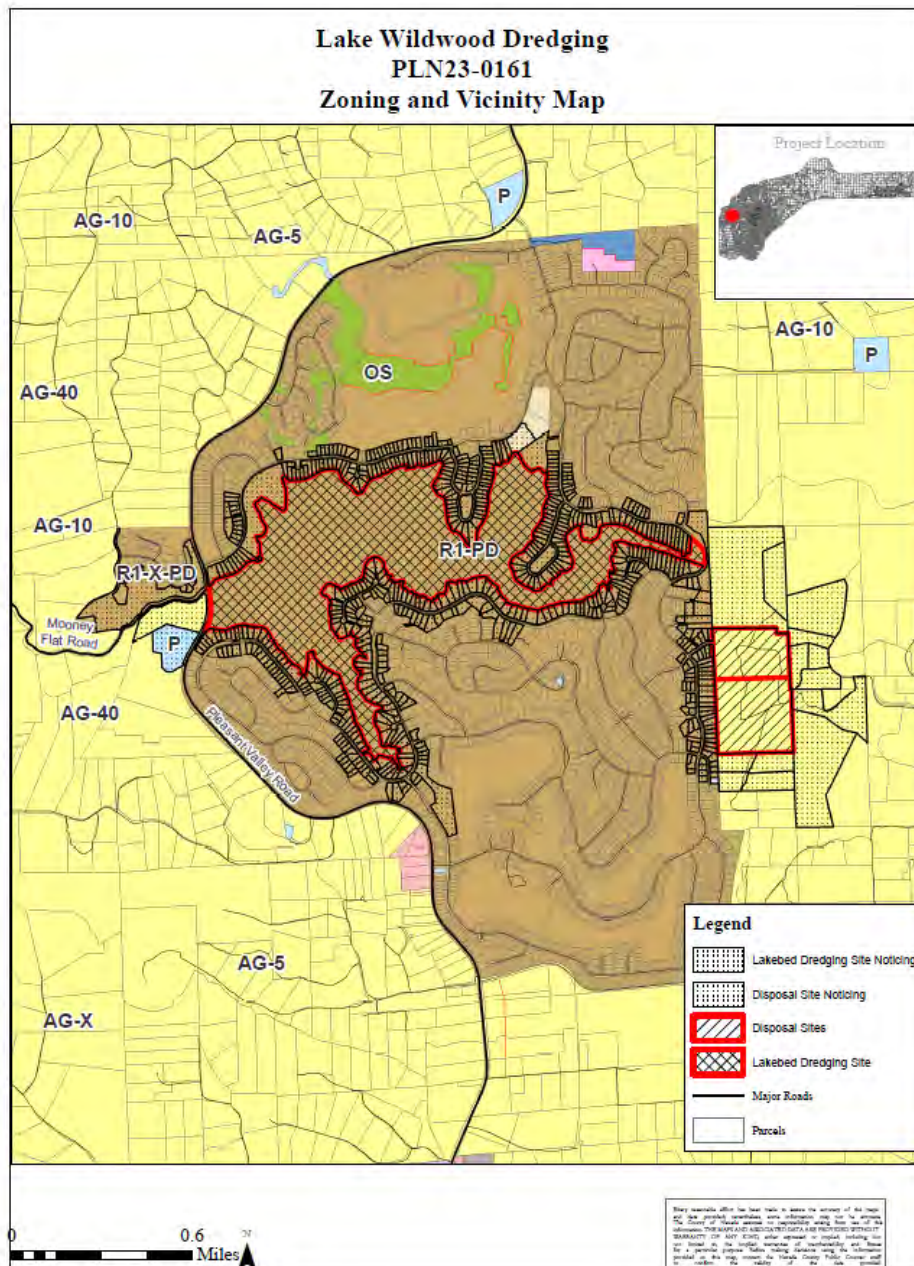


Figure 1 - Zoning and Vicinity Map

Project Description

The Lake Wildwood Dredging Project removes sediment from various drainage inlets around Lake Wildwood and disposes of dredge spoils on nearby rural parcels owned by the Lake Wildwood Association. The lakebed of Lake Wildwood is considered a floodplain by FEMA, requiring a Use Permit for development proposed within a floodplain (CUP23-0011) pursuant to Nevada County Land Use and Development Code Section L-II 4.3.10. At the lakebed site, work is also proposed within the non-disturbance buffers of perennial and intermittent watercourses. This requires a Management Plan (MGT23-0039) pursuant to Section L-II 4.3.17 to ensure the watercourses are protected. The project proposes impacts to landmark groves at the dredge disposal sites, requiring a Management Plan (MGT23-0040) pursuant to Section L-II 4.3.15. Finally, the project also requires a Management Plan (MGT24-0002) for impacts to rare, threatened, and endangered species and their habitat pursuant to LUDC Sec. L-II 4.3.12.

Drainage inlet points are shown on the project site plan (Figure 2). The Lake Wildwood Association (LWA) began dredging the lake approximately 40 years ago. LWA has historically performed dredging every three years or so, removing an average of 20,000 to 50,000 cubic yards of sediment each time the lake has been dredged. The greatest amount removed was 56,700 cubic yards in 1997. The exact amount of material removed is dependent on the size of preceding winter storms and the number of years between dredging operations.

During sediment removal operations, the lake is drawn down by approximately 10 to 12 feet, displacing roughly 3,000 acre-feet of water, by increasing water releases into lower Deer Creek over a period of several weeks. Typically, the drawdown begins around September. Once the lakebed is exposed, sediment is dredged over a period of two to three weeks in an effort to avoid the start of the rainy season around the beginning to middle of November. Sediment is pushed into piles using two D6N-LGP Swamp Cats, and immediately loaded into 6- to 10-wheel dump trucks using either a 330C Cat Excavator or a Linkbelt 330LV Excavator. A total footprint of approximately 900 square feet of drained sediment is temporarily stockpiled during dredging activities within the lakebed, below the lake's ordinary high-water mark and outside the banks of the lake. Trucks and equipment necessary to complete the work are rented from a local contractor. A typical work schedule during dewatering and dredging activities is Monday through Friday, 7:00 AM until 5:00 PM.

Typically, dredging is done every 3 to 4 years. LWA is anticipating a 15-year timeline for this entitlement consistent with the resource agency permit timelines for the project (CDFW Streambed Alteration Agreement, RWQCB 401 Permit, USACE 401 Permit); during that time, 4 or 5 dredging and sediment removal operations totaling approximately 200,000 cubic yards of material would be conducted. This material would be transported from the lakebed via existing private access roads, owned and maintained by LWA, to LWA-owned property on Bosa Drive where the material would be deposited on 7.0 acres of a separate 68-acre parcel. Of the 7.0 acres, approximately 1.5 acres defined as Landmark Oak Groves (i.e., >33% canopy coverage of oak trees) by Nevada County would be removed.

Following drawdowns, Lake Wildwood will be replenished by watershed runoff. Thus, sediment removal operations are often followed by a period where the lake cannot be maintained as a recreational resource. After the onset of fall rains, the lake normally refills to pre-drawdown levels by late November or early December, depending on rainfall.

LWA would contract Sierra Streams Institute (SSI) to monitor salmonid activity in lower Deer Creek before, during, and after drawdowns. Monitoring would be contingent on safe access provided with the consent of the property owner of the parcel adjacent to the anadromous reach of lower Deer Creek.

The drawdown allows for the removal of accumulated sediment in an environmentally responsible manner (i.e., so equipment can operate in a relatively dry area outside of standing water, avoiding the release of turbid water to other parts of the lake). While the exact duration of sediment removal operations depends on weather and the volume of accumulated sediment to be removed, sediment removal operations are timed to be completed before the onset of the first fall rains, which typically arrive by mid-November, to maintain a relatively dry dredging environment and prevent potential adverse environmental effects on other areas of the lake.

A Grading Plan and Permit from the County of Nevada will be issued prior to commencement of any work along with a Construction General Permit from the State Water Resources Control Board.

Permitting History

Dredging of Lake Wildwood was completed with permits from California Department of Fish and Wildlife (CDFW), the California Regional Water Quality Control Board, and the U.S. Army Corps of Engineers but without County permits for many years. After complaints from nearby residents in 1997 and 1998, the County began requiring grading permits and adopted a Mitigated Negative Declaration (MI01-010; EIS01-030). In more recent years, concerns were raised to CDFW about potential impacts to salmonids in Lower Deer Creek, prompting a re-evaluation of environmental impacts through this Initial Study/Mitigated Negative Declaration. In accordance with the Nevada County Land Use and Development Code, Management Plans for work in proximity to watercourses, riparian areas, floodplains, and protected trees, along with a Use Permit for work within the floodplain of Lake Wildwood are required.

Construction Schedule

Every 3 to 4 years, dewatering would begin in September and take several weeks to complete, while active construction (dredging and removal to the sediment deposit area) would occur after dewatering in late September through October for 2 to 3 weeks. A typical work schedule during dewatering and dredging activities is Monday through Friday, 7:00 AM until 5:00 PM.

Total Project Timeline

LWA is anticipating a 15-year timeline for this entitlement, during which time up to 5 dredging and sediment removal operations would be conducted totaling approximately 200,000 cubic yards of material.

Equipment

Trucks and equipment necessary to complete the work are rented from a local contractor.

Dredging Site

- Two (2) D6N-LGP Swamp Cats
- One (1) Excavator
- Up to seven (7) 6- to 10-wheel dump trucks

Disposal Site

- Two (2) 325 Class Excavators (70,000-80,000 pound)
- One (1) D6H Bulldozer

Haul Routes

After material is dredged from the lakebed, it will be transported from the lake via existing private roads within Lake Wildwood to Minnow Way, also a private road within Lake Wildwood, to Bosa Drive, a private road. The Lake Wildwood Association maintains all roads that are used to access the dredged materials disposal site on Bosa Drive, including Bosa Drive itself which is on Lake Wildwood Association-owned property. No road closures or delays are anticipated with the disposal of sediment.

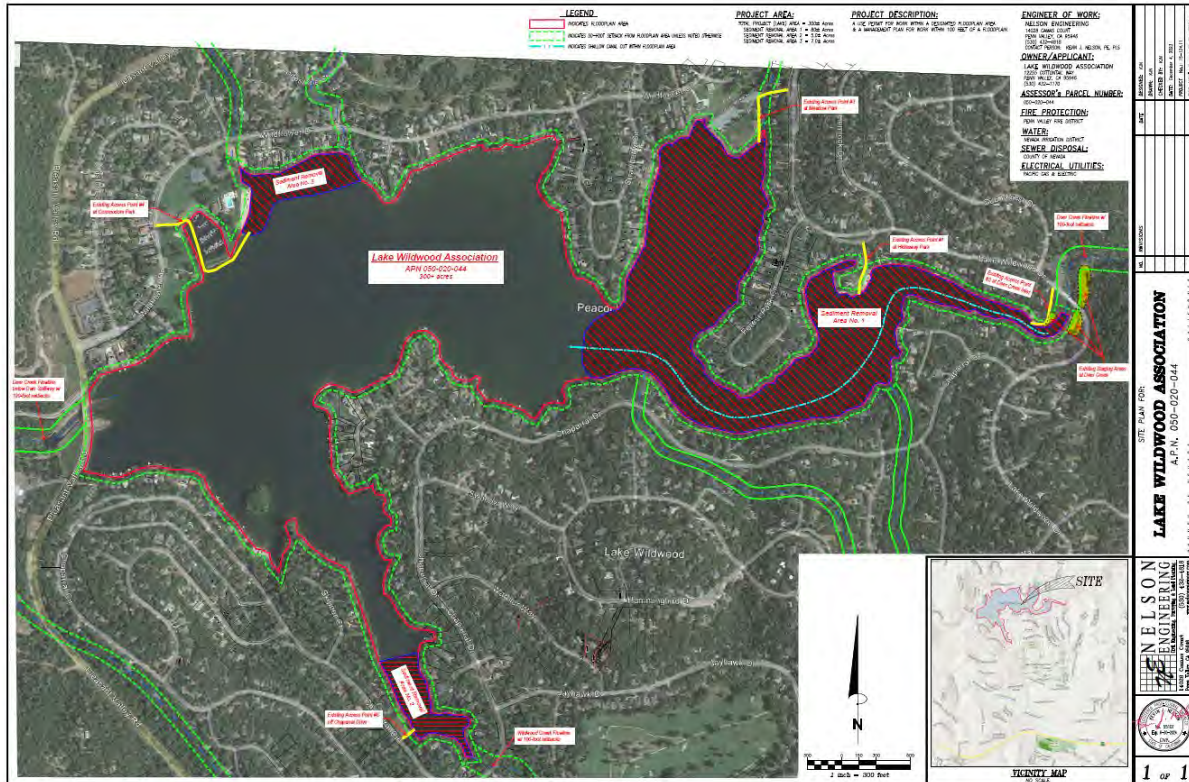


Figure 2 – Lakebed Dredging Site Plan



Figure 3 – Disposal Area Site Plan

Surrounding Land Uses:

Lake Wildwood is the center of a large residential subdivision. The gated community includes 2,845 parcels over 2,300 acres with average lot size of 0.3 acres. Most parcels have been developed with single family residences and accessory structures. The subdivision also includes various recreational facilities including the lake and marinas, racquet sports, parks, and a golf course. There is a commercial development with offices and retail on the north end of the subdivision.

The disposal sites are in a rural area adjacent to the Lake Wildwood Community Region, just east of the subdivision limits. The surrounding parcels are developed with residential and agricultural uses. The parcel sizes range from under an acre to over 45 acres.



Figure 4 – Lake Wildwood Community Region and Disposal Sites (in red)

Other Permits that May be Necessary:

1. Grading Permits – Nevada County Building Department
2. Northern Sierra Air Quality Management District
3. Construction Stormwater General Permit – California State Water Resources Control Board
4. California Department of Fish and Wildlife
5. Army Corps of Engineers

Relationship to Other Projects:

There are no directly related development projects known to this project. This scope of work has been occurring periodically for several decades with the intent to maintain Lake Wildwood as a recreational facility for members of the homeowners association. No additional development is anticipated as a result of this project.

Consultation with Native American Tribes:

Native American tribes traditionally and culturally affiliated with the project area were notified of the project and invited to consultation. No consultation was requested.

Summary of Impacts and Proposed Mitigation Measures

Environmental Factors Potentially Affected

All of the following environmental factors have been considered. Those environmental factors checked below would be potentially affected by this project, involving at least one impact that is “Less Than Significant with Mitigation” as indicated by the checklist on the following pages.

✓	1. Aesthetics	✓	2. Agricultural and Forestry Resources	✓	3. Air Quality
✓	4. Biological Resources	✓	5. Cultural Resources		6. Energy
✓	7. Geology and Soils	✓	8. Green House Gas Emissions	✓	9. Hazards and Hazardous Materials
✓	10. Hydrology and Water Quality	✓	11. Land Use and Planning		12. Mineral Resources
✓	13. Noise		14. Population and Housing		15. Public Services
	16. Recreation	✓	17. Transportation	✓	18. Tribal Cultural Resources
✓	19. Utilities and Service Systems		20. Wildfire	✓	21. Mandatory Findings of Significance

Recommended Mitigation Measures

The following measures shall be implemented, and where appropriate, included as a note on construction/grading plans as outlined in each.

1. AESTHETICS:

Mitigation Measure 1A: Limit Construction Hours and Prohibit Construction Lighting. In order to avoid offsite light trespass, during grading and construction, work hours shall be limited to 7AM to 5PM, Monday through Friday, and shall not occur outside of daylight hours, which will necessitate a later start time at some points during construction. Prior to issuance of grading permits, this measure shall be included as a note on all plans.

Timing: Prior to building permit issuance and during construction

Reporting: Agency approval of permits or plans

Responsible Agency: Planning Department

2. AGRICULTURAL AND FORESTRY RESOURCES:

Mitigation Measure 2A: Establish Environmentally Sensitive Areas (ESAs) around Farmlands of Local Importance. All grading plans for the disposal sites shall show Farmlands of Local Importance as depicted by the California Department of Conservation Division of Land Resource Protection and require the following note: “All Farmlands of Local Importance shall be delineated as Environmentally Sensitive Areas (ESAs) with orange safety fencing. No disposal of dredging materials, storage of equipment, or other encroachment into this area is permitted.”

Timing: *Prior to building permit issuance and during construction*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

3. AIR QUALITY:

Mitigation Measure 3A: Reduce emissions during construction. The following are the minimum mitigation measures designed to help reduce project emissions related to construction. These measures shall be included as a note on all plans prior to issuance of all grading, improvement, and building permits:

1. The mobile off-road construction equipment in use at any time on the project shall be equipped with Tier 4 engines.
2. Construction equipment idling time shall be limited to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). All construction equipment shall also be maintained and properly tuned in accordance with manufacturer’s specifications. Clear signage shall be provided for construction workers at all access points.
3. In addition to these measures, all statewide air pollution control regulations shall be followed, including diesel regulations (which may be accessed at www.arb.ca.gov/diesel/diesel.htm).

Timing: *Prior to issuance of grading and improvement permits*

Reporting: *Permit issuance*

Responsible Agency: *Planning Department / NSAQMD*

Mitigation Measure 3B: Prepare a Dust Control Plan. Prior to issuance of grading and improvement permits, submit a Dust Control Plan to Northern Sierra Air Quality Management District, if more than one (1) acre of natural surface area is to be altered or where the natural ground cover is removed, and gain their approval. The disturbance of natural surface area includes any clearing or grading. Include the approved Dust Control Plan on the project plans using clear phrasing and enforceable conditions, under its own heading. Provide evidence of NSAQMD approval to Nevada County with permit application submittal. The plan shall include but not be limited to the following measures, which shall also be included on all construction plans:

1. The construction contractor shall implement all dust control measures in a timely manner during all phases of project construction.
2. All material excavated, stockpiled, or graded shall be sufficiently watered, treated, or covered to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard.

3. All land clearing, grading, earth moving, and excavation activities on the project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 miles per hour.
4. All inactive disturbed portions of the disposal site shall be covered, seeded, or watered until a suitable cover is established per the requirements of the grading plan.
5. All material transported off-site shall be either sufficiently watered, or securely covered, or a freeboard of two feet shall be maintained in the bed of the transport vehicle to prevent fugitive dust emissions.
6. The construction contractor shall water the disposal site during initial site preparation and grading.
7. The construction contractor shall water unpaved construction roads for regular stabilization of dust emissions.
8. The construction contractor shall limit vehicle speeds on unpaved roads to a speed of 15 mph.
9. Paved streets adjacent to the project shall be swept or washed at the end of each day, or as needed to remove excessive accumulation of silt and/or mud which may have resulted from activities at the project site.

Timing: Prior to issuance of grading and improvement permits

Reporting: Permit issuance

Responsible Agency: Planning Department

Mitigation Measure 3C: Use Alternative Methods to Open Burning for Vegetation Disposal. The following note shall be included on all grading and improvement plans: "Open burning of site-cleared vegetation is prohibited. Among suitable alternatives are chipping, grinding, hauling to an approved disposal site, cutting for firewood, and conversion to biomass fuel."

Timing: Prior to issuance of grading and improvement permits

Reporting: Permit issuance

Responsible Agency: Planning Department / NSAQMD

4. BIOLOGICAL RESOURCES:

Mitigation Measure 4A: No vegetation removal. The following note must appear on all grading plans: No vegetation will be removed or otherwise affected by the sediment removal or dewatering activities at the lakebed site. All equipment and machinery will enter/exit at pre-established routes preventing any adverse effects to the lake bank or associated vegetation. When possible, all construction vehicles, equipment and machinery will enter and exit along one route.

Timing: Prior to grading/building permit issuance and during construction

Reporting: Agency approval of permits or plans

Responsible Agency: Planning Department

Mitigation Measure 4B: Sediment Testing. Sediment to be removed will be tested for solid phase metals (e.g., California Administrative Manual [CAM] 17 metals and hexavalent chromium) for comparison to California Department of Toxic Substances Control (DTSC) and EPA Regional screening levels, with further testing and appropriate disposal as required for any soils exceeding the corresponding Total Threshold Limit Concentrations

(TTLCs) for designation as hazardous waste. This requirement shall appear on all grading plans.

Timing: *Prior to building permit issuance and during construction*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 4C: Upland Disposal. All sediment removed from Lake Wildwood would be disposed of at an acceptable upland location and not placed within, or where it can enter into, waters of the United States/waters of the State. All disposal areas must be shown on the grading plans.

Timing: *Prior to building permit issuance and during construction*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 4D: Limit Equipment and Vehicles. The following note must appear on all grading plans: Heavy equipment and vehicular movement will be limited to the Project Area, existing access roads and predetermined staging areas.

Timing: *Prior to building permit issuance and during construction*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 4E: Water Quality Best Management Practices. The following measures include Best Management Practices that would be implemented during and after sediment removal to minimize potential direct or indirect adverse effects to water quality and adjacent waters of the United States and must appear on all building/grading plans:

1. To prevent sediment material from entering any watercourse, a shallow canal shall be cut into the lakebed to divert water from the Deer Creek inlet away from the excavation site.
2. Access points shall be on stabilized ground to minimize the tracking of sediment onto roads. If sediment were tracked onto a roadway, the sediment would be removed by shoveling and then transporting it to the sediment disposal area.
3. The color and quality of the lake water shall be monitored daily by the release valve operator during dewatering to ensure no visibly turbid water is released from the lake. LWA would discontinue the release into Deer Creek if lake water becomes turbid due to rain or for any other reason.
4. All pollutants that occur on site during construction shall be handled and disposed of in a manner that does not cause contamination of surface water (or ground runoff).
5. Spill prevention measures (i.e., the use of drip pans) shall be implemented when equipment or machinery is staged below the high-water mark.
6. Vehicles and construction equipment shall be inspected daily for fuel and/or hydraulic fluid leaks; if a leak is identified, use of the vehicle/equipment would be discontinued until repairs are completed and the leak is stopped.
7. Maintenance and repair of equipment or machinery—or other activities that may result in discharge or spillage of pollutants to the ground or surface water—would be conducted in upland areas using spill prevention measures.
8. Contaminated surfaces would be cleaned immediately following any discharge or spill incident.

Timing: *Prior to building permit issuance and during construction*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 4F: Drawdown Approach. LWA would implement a drawdown approach that has been developed in coordination with CDFW to avoid or minimize adverse effects on special-status salmonids, as follows:

The general progression of the drawdown would involve a gradual ramp-up from baseflow in lower Deer Creek to peak discharge, followed by a gradual recession and return to baseflow over the course of approximately 20–25 days. The approach would produce a peak discharge of no more than 150 cubic feet per second (cfs) which would be maintained for 24 hours. Release adjustments would be made in stepwise fashion, so that discharge measured at the Smartsville Gage would remain stable for a period of at least 24 hours after each adjustment. Streamflow magnitudes and ramping rates incorporated into this approach would be within the range of values produced by seasonal storms in the Deer Creek watershed. Under this approach, the water surface elevation in Lake Wildwood would reach the target reduction of 10–12 feet.

The stepwise drawdown would be initiated in September. The proposed drawdown approach is estimated to produce a 12-foot drop in lake water levels by late October or early November or sooner. The flow rates at any time may be adjusted based on feedback from the adaptive monitoring system.

Timing: *Prior to building permit issuance and during construction*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 4G: Monitoring and Adaptive Management Program. LWA would implement a monitoring and adaptive management program to identify potential Project-related effects on special-status salmonids in lower Deer Creek and implement appropriate corrective actions, if necessary.

LWA would contract Sierra Streams Institute (SSI) to monitor salmonid activity in lower Deer Creek before, during, and after drawdowns. Monitoring would be contingent on safe access provided with the consent of the property owner of the parcel adjacent to the anadromous reach of lower Deer Creek.

Monitoring components would include in situ measurements of water temperature, dissolved oxygen (DO), pH, turbidity, and conductivity, as well as redd counts, carcass counts, and visual assessments of potential stranding risk.

If SSI were to identify potential effects on special-status salmonids during a drawdown (i.e., increased stranding risk or exceedance of a relevant water quality threshold), LWA would collaborate with CDFW to implement corrective actions (e.g., extending the release period to allow fish to move downstream and out of pools).

A report summarizing monitoring results would be prepared and submitted to CDFW before the end of the calendar year in which monitoring occurred. Information gathered during each drawdown would be used to inform the drawdown approach for subsequent sediment removal operations as needed.

Timing: Prior to building permit issuance and during construction
Reporting: Agency approval of permits or plans
Responsible Agency: Planning Department

Mitigation Measure 4H: Worker Environmental Awareness Training. All contractors and equipment operators will be provided Worker Environmental Awareness Training to educate them on the environmental resources of the project area, information on state and federal laws protecting water resources, and terms and conditions described in project permits. Training will include the potential for western pond turtles to be present, and measures to avoid injury. Copies of documentation provided and written confirmation of the date of distribution shall be provided to the Planning Department prior to final inspection of the grading/building permit.

Timing: Prior to grading permit completion
Reporting: Agency approval of permits or plans
Responsible Agency: Planning Department

Mitigation Measure 4I: Western Pond Turtle Avoidance. If a western pond turtle is observed, they should be left alone to move out of the area on their own. Direct injury to pond turtles will be avoided by reducing vehicle speed and/or temporarily stopping work until the turtle leaves the area. The crew will avoid areas where turtles are observed to occur. These areas are to be marked with high-visibility flags to alert the crew of the presence of turtles. In the event a turtle does not leave on their own accord, a biologist may safely move the turtle to the nearest suitable habitat.

Timing: Prior to grading permit completion
Reporting: Agency approval of permits or plans
Responsible Agency: Planning Department

Mitigation Measure 4J: Landmark Oak Grove Compensation. The removal of 1.5 acres of Landmark Oak groves can be compensated by contributing to the Bear Yuba Land Trust's "Oak Woodland Conservation Fund Plan" for the loss or disturbance of Landmark Oak Groves within Nevada County. To mitigate for impacts to Landmark Oak Groves, the project applicant shall pay an in-lieu fee to the Bear Yuba Land Trust according to the 2:1 mitigation ratio fee schedule for the loss of 1.5 acres, along with any required administrative fees. A receipt demonstrating payment of the fee shall be submitted to the Planning Department prior to issuance of grading permits.

Timing: Prior to grading permit issuance
Reporting: Agency approval of permits or plans
Responsible Agency: Planning Department

Mitigation Measure 4K: Establish ESA Fencing for Oak Woodlands to be Protected During Construction. The following note shall appear on all grading permit plans: Prior to construction, install protective fencing around environmentally sensitive areas (ESAs) to protect the adjacent, remaining oak groves from disturbance from trucks and other heavy equipment operating the project area to ensure that they are protected from any further damage.

Timing: Prior to grading permit issuance
Reporting: Agency approval of permits or plans
Responsible Agency: Planning Department

Mitigation Measure 4L: Transplant 9 Sierra foothills brodiaea plants to compensate for the “take” of 3 plants. Prior to issuance of permits for work in the sediment disposal site, the project applicant shall hire a County-approved biologist to transplant nine of the Sierra foothills brodiaea plants from the area of impact to suitable habitat areas on the project site to be determined by the project botanist. This measure represents a 3:1 replacement if the 3 plants that would be removed by this project. Photo evidence of a successful transplant shall be submitted to the Planning Department prior to grading permit issuance.

Timing: *Prior to grading permit issuance*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 4M: Avoid Impacts to Nesting Birds. If any large trees >20” DBH are proposed for removal during the active bird nesting season (i.e., March 1 to July 31) they shall be inspected by a qualified biologist to ensure that no active bird nests are disturbed or destroyed. If, however, the tree is removed before March 1 or after July 31, no mitigation would be required. The following note shall be added to all improvement/grading/construction plans and the measures implemented as noted:

1. Tree removal and construction shall not take place during the breeding season (March 1 –July 31), unless supported by a report from the qualified biologist verifying that birds, including raptors, are not nesting in the trees proposed for removal or disturbance.
2. If construction is to take place during the nesting season (March 1–July 31), including any ground disturbance, preconstruction surveys for nesting raptors and migratory birds shall be conducted within 7 days prior to the beginning of construction activities by a County-approved biologist and in accordance with California and Federal requirements. If active nests are found, a buffer (protected area surrounding the nest, the size of which is to be determined by a qualified biologist) and monitoring plan shall be developed. Nest locations shall be mapped and submitted, along with a report stating the survey results, to the Nevada County Planning Department within one week of survey completion.
3. An additional survey shall be required if periods of construction inactivity (e.g., gaps of activity during grading, tree removal, road building, or structure assembly) exceed a period of two weeks, an interval during which bird species, in the absence of human or construction-related disturbances, may establish a nesting territory and initiate egg laying and incubation.

Timing: *Prior to grading permit issuance*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 4N: Avoid Spillage of Oils and Other Contaminants. The following note shall be placed on all construction plans prior to issuance of permits: “The contractor shall exercise every reasonable precaution to protect the project site from pollution with fuels, oils, bitumen, calcium chloride, and other harmful materials. Construction byproducts and pollutants such as oil and washwater shall be prevented from discharging into adjacent ditches and shall instead be collected and removed from the site.”

Timing: *Prior to grading permit issuance*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 40: Provide Copies of Mitigation Measures to Contractors. To ensure the proper and timely implementation of all mitigation measures contained in this report, as well as the terms and conditions of any other required permits, the applicant shall distribute copies of these mitigation measures and any other permit requirements to the contractors prior to grading and construction. Copies of documentation provided and written confirmation of the date of distribution shall be provided to the Planning Department prior to final inspection of the grading/building permit.

Timing: *Prior to grading permit completion*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

5. CULTURAL RESOURCES:

Mitigation Measure 5A: Cultural awareness training. A consultant and construction worker tribal cultural resources awareness brochure and training program for all personnel involved in project implementation will be developed in coordination with interested Native American Tribes. The brochure will be distributed and the training will be conducted in coordination with qualified cultural resources specialists and Native American Representatives and Monitors from culturally affiliated Native American Tribes before any stages of project implementation and construction activities begin on the project site. The program will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and will outline what to do and whom to contact if any potential archaeological resources or artifacts are encountered. The program will also underscore the requirement for confidentiality and culturally appropriate treatment of any find of significance to Native Americans and behaviors, consistent with Native American Tribe values.

Timing: *Prior to the issuance of building/grading permits and during construction*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 5B: Halt work and contact the appropriate agencies if human remains or cultural materials are discovered during project construction. All equipment operators and employees involved in any form of ground disturbance at any phase of project improvements shall be advised of the remote possibility of encountering subsurface cultural resources. If such resources are encountered or suspected, work shall be halted immediately and the Nevada County Planning Department, United Auburn Indian Community of the Auburn Rancheria, and any other interested and affected tribe shall be contacted. A professional archaeologist shall be retained by the developer and consulted to access any discoveries and develop appropriate management recommendations for archaeological resource treatment. If bones are encountered and appear to be human, California Law requires that the Nevada County Coroner and the Native American Heritage Commission be contacted and, if Native American resources are involved, Native American organizations and individuals recognized by the County shall be notified and consulted about any plans for treatment. A note to this effect shall be included on the grading and construction plans for each phase of this project.

Timing: *Prior to the issuance of building/grading permits and during construction*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 5C: Lakebed Pedestrian Survey. Upon completion of the proposed lake drawdown, those portions of the lakebed recently exposed due to drawdown shall be subjected to an intensive pedestrian survey conducted by a qualified professional archaeologist. The investigation would comply with contemporary professional standards, and would involve a review of this report’s findings, implementation of an intensive pedestrian survey involving transects spaced at intervals no greater than 10-meters in width, recordation of any identified cultural resources on DPR 523 forms, and preparation of a professional report including the findings of the investigation and any recommendations considered appropriate based on the findings. This report shall be submitted to the Planning Department prior to issuance of building/grading permits.

Timing: *Prior to the issuance of building/grading permits*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

6. ENERGY

None

7. GEOLOGY AND SOILS:

See **Mitigation Measures 3C, 4A, 4E, 5A, 5B, 10D**

8. GREENHOUSE GAS EMISSIONS:

See **Mitigation Measure 3A**

9. HAZARDS AND HAZARDOUS MATERIALS

See **Mitigation Measures 4B, 4E, 17A**

10. HYDROLOGY AND WATER QUALITY

Mitigation Measure 10A: No clearing and grubbing. The following notes shall appear on all plans and drawings: No vegetation shall be removed or otherwise affected by the sediment removal. All equipment and machinery shall enter/exit at pre-established routes preventing any adverse effects to the lake bank or associated vegetation. When possible, all construction vehicles, equipment and machinery shall enter and exit along one route.

Timing: *Prior to building/grading permit issuance*

Reporting: *Approval of permits*

Responsible Agency: *Planning Department and Building Department*

Mitigation Measure 10B: Grading and sediment removal guidelines. The following notes shall appear on all plans and drawings: Grading and sediment removal shall adhere to the following guidelines:

1. Heavy equipment and vehicular movement shall be limited to the Project Area, existing access roads and predetermined staging areas.
2. All equipment and machinery shall enter/exit at pre-established points preventing any adverse effects to the lake bank or associated vegetation. When possible, all construction vehicles, equipment and machinery shall enter and exit along one route.

3. Access points shall be on stabilized ground with a stabilized construction entrance/exit per Best Management Practice (BMP) standard drawing TC-1 and TC-3 to minimize the tracking of sediment onto roads. If sediment is tracked onto a roadway, the sediment shall be removed by shoveling and then transporting it to the sediment disposal area.
4. To prevent sediment material from entering any watercourse, a shallow canal shall be cut into the lakebed to divert water from the Deer Creek inlet away from any of the grading and/or excavation areas.
5. Spill prevention and control measures shall be implemented per BMP standard drawing WM-4 when equipment or machinery are staged below the normal water elevation (1,200.0 feet).
6. All pollutants that occur during the grading operation shall be handled and disposed of in a manner that does not cause contamination of surface water (or ground runoff).
7. Vehicles and construction equipment shall be inspected daily for fuel and/or hydraulic fluid leaks; if a leak is identified, use of the vehicle/equipment shall be discontinued until repairs are completed and the leak is stopped.
8. Maintenance and repair of equipment or machinery—or other activities that may result in discharge or spillage of pollutants to the ground or surface water shall be conducted in upland areas using spill prevention measures as noted above.
9. Contaminated surfaces shall be cleaned immediately following any discharge or spill incident.

Timing: *Prior to building/grading permit issuance*

Reporting: *Approval of permits*

Responsible Agency: *Planning Department and Building Department*

Mitigation Measure 10C: Cut and Fill Slope Grading. The following notes shall appear on all plans and drawings: No cut or fill slope grading shall take place proposed within the floodplain or 100-foot setback area to the floodplain.

Timing: *Prior to building/grading permit issuance*

Reporting: *Approval of permits*

Responsible Agency: *Planning Department and Building Department*

Mitigation Measure 10D: Erosion Control during Construction. The following notes shall appear on all plans and drawings:

1. No vegetation removal is anticipated and all existing vegetation shall be preserved to the extent practicable.
2. Best Management Practices (BMPs) shall be implemented for erosion and sediment control. Typical BMPs, such as seeding, mulch, straw with tackifiers, fiber rolls silt fences and sediment traps, should be used during and after construction as needed to reduce erosion and retain sediment within the construction area. Fiber rolls or silt fencing shall be added below the leach line trenches for the sewage disposal system.
3. The contractor shall provide labor, materials, and equipment to maintain and protect any exposed soil from wind and water erosion. The contractor shall provide siltation control and management during any construction activities. All existing surface drainage facilities shall be kept free of soil and debris during construction. No trenching or grading shall take place if there is a 50% chance or greater of rain within 48 hours.

Timing: Prior to building/grading permit issuance

Reporting: Approval of permits

Responsible Agency: Planning Department and Building Department

Mitigation Measure 10E: Regional Water Quality Control Board (RWQCB) Permit. Prior to issuance of any grading permits, a copy of an approved permit as required by section 401 of the Clean Water Act and issued by the RWQCB will be submitted to the Planning Department.

Timing: Prior to grading permit issuance

Reporting: Permit issuance

Responsible Agency: Planning Department

11. LAND USE AND PLANNING

See **Mitigation Measures 4A-I and 10A-E**

12. MINERAL RESOURCES

None.

13. NOISE

See **Mitigation Measure 1A**

14. POPULATION AND HOUSING

None

15. PUBLIC SERVICES

None

16. RECREATION

None

17. TRANSPORTATION

Mitigation Measure 17A: Implement a Construction Traffic Management Plan. Prior to issuance of grading and improvement permits, the applicant shall submit a Construction Traffic Management Plan to the County for review and approval. The plan shall include but not be limited to the use of advanced warning signage, electronic communication protocols to inform residents of the work being done and the route construction vehicles will take, and other appropriate traffic control measures. Relevant measures shall be noted on all construction plans prior to issuance of permits.

Timing: Prior to issuance of grading and improvement permits

Reporting: Permit issuance

Responsible Agency: Planning Department

Mitigation Measure 17B: Provide a Road Maintenance Agreement for Bosa Drive. Prior to issuance of grading and improvement permits, the applicant shall submit a Road Maintenance Agreement (RMA) for Bosa Drive to ensure that the applicant pays a fair share of the cost to maintain the portions of Bosa Drive affected by the project, per Civil

Code Section 845. If an RMA already exists, the applicant shall provide it to the County. The RMA must be recorded prior to the start of hauling on Bosa Drive and a copy shall be provided to the Planning Department prior to issuance of grading permits.

Timing: *Prior to issuance of grading and improvement permits*

Reporting: *Permit issuance*

Responsible Agency: *Planning Department*

See also **Mitigation Measure 3A**

18. TRIBAL CULTURAL RESOURCES

See **Mitigation Measures 5A-C**

19. UTILITIES AND SERVICES SYSTEMS

See **Mitigation Measure 4B**

20. WILDFIRE

See **Mitigation Measures 4C, 4E**

21. MANDATORY FINDINGS OF SIGNIFICANCE

See all Mitigation Measures listed above

Mitigation and Monitoring Matrix

MEASURE #	MONITORING AUTHORITY	IMPLEMENTATION TIMING
1A	Planning Department	Prior to building permit issuance and during construction
2A	Planning Department	Prior to building permit issuance and during construction
3A	Planning Department / NSAQMD	Prior to issuance of grading and improvement permits
3B	Planning Department	Prior to issuance of grading and improvement permits
3C	Planning Department / NSAQMD	Prior to issuance of grading and improvement permits
4A	Planning Department	Prior to grading/building permit issuance and during construction
4B	Planning Department	Prior to building permit issuance and during construction
4C	Planning Department	Prior to building permit issuance and during construction
4D	Planning Department	Prior to building permit issuance and during construction
4E	Planning Department	Prior to building permit issuance and during construction

4F	Planning Department	Prior to building permit issuance and during construction
4G	Planning Department	Prior to building permit issuance and during construction
4H	Planning Department	Prior to grading permit completion
4I	Planning Department	Prior to grading permit completion
4J	Planning Department	Prior to grading permit issuance
4K	Planning Department	Prior to grading permit issuance
4L	Planning Department	Prior to grading permit issuance
4M	Planning Department	Prior to grading permit issuance
4N	Planning Department	Prior to grading permit issuance
4O	Planning Department	Prior to grading permit completion
5A	Planning Department	Prior to the issuance of building/grading permits and during construction
5B	Planning Department	Prior to the issuance of building/grading permits and during construction
5C	Planning Department	Prior to the issuance of building/grading permits
10A	Planning Department and Building Department	Prior to building/grading permit issuance
10B	Planning Department and Building Department	Prior to building/grading permit issuance
10C	Planning Department and Building Department	Prior to building/grading permit issuance
10D	Planning Department and Building Department	Prior to building/grading permit issuance
10E	Planning Department	Prior to grading permit issuance
17A	Planning Department	Prior to issuance of grading and improvement permits
17B	Planning Department	Prior to issuance of grading and improvement permits

Initial Study and Checklist

Introduction

This checklist is to be completed for all projects that are not exempt from environmental review under the California Environmental Quality Act (CEQA). CEQA requires a brief explanation for answers to the Appendix G: Environmental Checklist except “No Impact” responses that are adequately supported by noted information sources. Answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. This Initial Study uses the following terms to describe the level of significance of adverse impacts. These terms are defined as follows.

- **No Impact:** An impact that would result in no adverse changes to the environment.
- **Less than Significant Impact:** An impact that is potentially adverse but does not exceed the thresholds of significance as identified in the impact discussions. Less than significant impacts do not require mitigation.
- **Less than Significant with Mitigation:** An environmental effect that may cause a substantial adverse change in the environment without mitigation, but which is reduced to a level that is less than significant with mitigation identified in the Initial Study.
- **Potentially Significant Impact:** An environmental effect that may cause a substantial adverse change in the environment; either additional information is needed regarding the extent of the impact to make the significance determination, or the impact would or could cause a substantial adverse change in the environment. A finding of a potentially significant impact would result in the determination to prepare an EIR.

1. Aesthetics

Existing Setting: The proposed project will occur within the lakebed of the 300-acre Lake Wildwood and on a 68-acre property off Bosa Drive. The project includes dredging sediment within the lakebed over a maximum of 95 acres within the 300-acre lake, and disposing of it on seven acres of the 68-acre parcel. Up to 200,000 cubic yards is anticipated to be dredged over a 15-year period.

The lake is used for recreational purposes and is surrounded on all sides by private property within the gated Lake Wildwood community. Views of the lake are all from the privately held Lake Wildwood community, with the exception of a portion of the west end of the lake, which can be seen from the County-maintained, public Pleasant Valley Road. Access to the dredging location is via existing roads inside the Lake Wildwood community.

The Bosa Drive disposal parcels are east of and adjacent to Lake Wildwood. Approximately 24 Lake Wildwood residential parcels are located to the west of the 68-acre property. To the north, south, and east are six AG-10-zoned properties, some of which are developed with agricultural and residential uses.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Have a substantial adverse effect on a scenic vista?			✓		A
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				✓	16
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			✓		A
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		✓			A

Impact Discussion:

1a,c A scenic vista is typically considered to be a view that possesses visual and aesthetic qualities of high value to the public. Scenic vistas can provide views of natural features or significant structures and buildings. The lakebed of Lake Wildwood is primarily visible from private property within that community and is owned by the residents of that community. However, a portion of Pleasant Valley Road does afford a full view of the lake from the public road. This view can be seen at the dam outlet, with the wastewater treatment plant on the other side of the road. Arguably, this view and Lake Wildwood residents’ views of the lake are of high quality and value to the public/community. However, the project would result only in short-term, temporary visual impacts to this view. Furthermore, if the lake remains undredged, it will eventually fill with sediment and cease to be a lake. Although the project may have short-term, temporary impacts to this view, the overall impact of the project is a beneficial one to the long-term ability to continue to maintain a lake view from public and private vantage points.

The disposal area is located on approximately 7.0 acres of a larger 68-acre property across two parcels. The disposal pile would consist of up to 200,000 cubic yards of material and rise approximately 65 feet tall on the east side, tapering to ground level on the west. Heavy vegetative screening occurs on all sides. Because the disposal pile area is at the approximate center of the larger 68-acre area as shown in Figure 3, and due to topographical contours and tree and vegetative screening, the disposal area is not visible from any public vantage points. Additionally, the site has already been disturbed with past grading and spoils piles from dredged materials and is in a similar state to the proposed end state of the project. The dredge spoils will be reseeded as part of erosion control measures, thus introducing more aesthetically pleasing vegetation. Therefore, the project would have **less than significant impacts** related to scenic vistas and the degradation of the visual character of the area.

- 1b The only visible public view of the project is from Pleasant Valley Road. Pleasant Valley Road is not a designated state scenic highway. Therefore, there is **no impact** related to views from a state scenic highway.
- 1d The project will not create any new operational sources of light or glare, but could create light and glare during construction. Construction hours are proposed from 7:00 AM to 5:00 PM during early fall, from September through October. At this time of year, sunrise ranges from 6:30 AM–7:30 AM and sunset ranges from 7:30 PM to 6:00 PM, respectively through the season. Light intrusion could pose a nuisance to surrounding residential uses at Lake Wildwood if construction were to begin prior to sunrise. **Mitigation Measure 1A** limits the hours of operation to daylight hours, making this impact **less than significant with mitigation**.

Mitigation Measures: To preserve the existing aesthetic quality and character of the project area, the following mitigation measure has been included:

Mitigation Measure 1A: Limit Construction Hours and Prohibit Construction Lighting. In order to avoid offsite light trespass, during grading and construction, work hours shall be limited to 7AM to 5PM, Monday through Friday, and shall not occur outside of daylight hours, which will necessitate a later start time at some points during construction. Prior to issuance of grading permits, this measure shall be included as a note on all plans.

Timing: Prior to building permit issuance and during construction

Reporting: Agency approval of permits or plans

Responsible Agency: Planning Department

2. Agricultural and Forestry Resources

Existing Setting: The Lake Wildwood lakebed parcel is water, and not an agricultural or forestry resource. The two disposal sites are primarily Grazing Land with small pockets of Farmlands of Local Importance as designated by the California Department of Conservation. Farmland of Local Importance is determined by each county’s board of supervisors and a local advisory committee. In Nevada County, farmland of local importance is defined as farmland that does not meet the criteria of Prime Farmland, Statewide Importance or Unique Farmland; is zoned Residential Agricultural (RA), General Agricultural (AG), Agricultural Exclusive (AE), Forest (FR), or Timberland Production Zone (TPZ); and delineated by the following soil types: Ahwahnee sandy loam, 15 to 30% slopes (AdD); Argonaut gravelly loam, 2 to 15% slopes (ArC); Hoda sandy loam, 9 to 15% slopes (HnC); Sobrante loam, 15 to 30% slopes (SoD); or Trabuco loam, 5 to 15% slopes (TrC).

The disposal parcels contain small swaths of Trabuco loam, 5 to 15% slopes and are zoned AG; therefore they qualify as Farmlands of Local Importance. See Figure 5, where areas in light yellow show the Farmland of Local Importance. Grazing land is defined as land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen’s Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. Grazing land is shown in taupe in Figure 5.



Figure 5 – Important Farmland shown in light yellow at Disposal Sites

The disposal sites are zoned General Agricultural (AG), and the lakebed parcel is zoned Single Family Residential (R1). None of the project parcels have Williamson Act Contracts. There is no Timberland Production Zone (TPZ) or Forest (FR) zoning on the project parcels, and no forestry uses are existing on these parcels or in the project vicinity.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?		✓			1, 2
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?			✓		A, 3, 4
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resource Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓	A, 4
d. Result in the loss of forest land or conversion of forest land to non-forest use?				✓	A

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
e. Involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				✓	A

Impact Discussion:

- 2a There are small pockets of farmland of local importance present on the disposal site parcels. The areas proposed for grading and disposal of dredging materials from the lakebed dredging operation are outside of the farmland of local importance. The Nevada County Agricultural Commissioner reviewed the project and did not have comments or conditions of approval. However, it is possible that dredge spoils could be accidentally deposited on farmlands of local importance because it is directly adjacent to the spoils site. Trespass into these areas could render the soil there unusable for agriculture. In order to protect these farmlands, **Mitigation Measure 2A** requires establishment of environmentally sensitive areas (ESAs). The ESAs, which will be delineated with orange safety fencing, will ensure that there is not trespass of materials or equipment onto these areas so that they will be preserved for potential future agricultural use and not converted. Therefore, the impact to protected farmlands is **less than significant with mitigation**.
- 2b The project proposes to place dredge spoils with a grading permit on parcels with agricultural zoning (General Agricultural). Grading is allowed on this parcel, and does not necessarily preclude future agricultural uses, especially with the protection of the farmland of local importance discussed in 2a. There are no Williamson Act Contracts on any of the subject parcels. Therefore, the conflicts with agricultural zoning and Williamson Act Contracts are **less than significant**.
- 2c,d The project proposes dredging of Lake Wildwood and disposal of dredge spoils on nearby parcels. This activity has been ongoing since the 1970s, and no change of land use is requested. These parcels do not have forest or timberland zoning or uses, and are not in the vicinity of any forest land or timberland. Therefore, there is **no impact** to forest land or timberland.
- 2e The project proposes dredging of Lake Wildwood and disposal of dredge spoils on nearby parcels. This activity has been ongoing since the 1970s, and no change of land use is requested. No changes to the existing environment are expected beyond those described above. Therefore there is **no impact** that would result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

Mitigation Measure. To preserve the Farmlands of Local Importance in the project vicinity, the following mitigation measure has been included:

Mitigation Measure 2A: Establish Environmentally Sensitive Areas (ESAs) around Farmlands of Local Importance. All grading plans for the disposal sites shall show Farmlands of Local Importance as depicted by the California Department of Conservation Division of Land Resource Protection and require the following note: "All Farmlands of

Local Importance shall be delineated as Environmentally Sensitive Areas (ESAs) with orange safety fencing. No disposal of dredging materials, storage of equipment, or other encroachment into this area is permitted.”

Timing: *Prior to building permit issuance and during construction*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

3. Air Quality

Existing Setting: Nevada County is located in the Mountain Counties Air Basin (MCAB). The MCAB includes the central and northern Sierra Nevada mountain range with elevations ranging from several hundred feet in the foothills to over 6,000 feet above mean sea level along the Sierra Crest. The MCAB generally experiences warm, dry summers and wet winters. Ambient air quality in the air basin is generally determined by climatological conditions, the topography of the air basin, and the type and amount of pollutants emitted. The Northern Sierra Air Quality Management District has responsibility for controlling air pollution emissions including “criteria air pollutants” and “toxic air pollutants” from direct sources (such as factories) and indirect sources (such as land-use projects) to improve air quality within Nevada County. To do so, the District adopts rules, regulations, policies, and programs to manage the air pollutant emissions from various sources, and also must enforce certain statewide and federal rules, regulations and laws.

The Federal Clean Air Act of 1971 established national ambient air quality standards (NAAQS). These standards are divided into primary and secondary standards. Primary standards are designed to protect public health and secondary standards are designed to protect plants, forests, crops, and materials. Because of the health-based criteria identified in setting the NAAQS, the air pollutants are termed “criteria” pollutants. California has adopted its own ambient air quality standards (CAAQS). Criteria air pollutants include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, and particulate matter. CAAQS include the NAAQS pollutants, in addition to visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. A nonattainment area is an area where a criteria air pollutant’s concentration is above either the federal and/or state ambient air quality standards. Depending on the level of severity, a classification will be designated to a nonattainment area. Failure of a state to reach attainment of the NAAQS by the target date can trigger penalties, including withholding of federal highway funds. Table 1 shows the current attainment/nonattainment status for the federal and state air quality standards in Nevada County.

Nevada County has two federally recognized air monitoring sites: The Litton Building in Grass Valley (fine particulate matter, also called PM_{2.5}, and ozone) and the fire station in downtown Truckee (PM_{2.5} only). For eight-hour average ozone concentrations, Nevada County is serious nonattainment for both the 2008 and 2015 state and federal ozone standards of 75 and 70 parts per billion, respectively (Table 1). Unlike other pollutants, ozone is not typically released directly into the atmosphere from any sources. Ozone is created by the interaction of Nitrogen Oxides and Reactive Organic Gases (also known as Volatile Organic Compounds) in the presence of sunlight, especially when the temperature is high. The major sources of Nitrogen Oxides and Reactive Organic Gases, known as ozone precursors, are combustion sources such as factories, automobiles and evaporation of solvents and fuels. Ozone is mainly a summertime problem, with the highest concentrations generally observed in July and August, when the days are longest, especially in the late afternoon and evening hours. Ozone is considered by the California Air

Resources Board to be overwhelmingly transported to Nevada County from the Sacramento Metropolitan area and, to a lesser extent, the San Francisco Bay Area. This recognition of overwhelming transport relieves Nevada County of CAAQS-related requirements, including the development of CAAQS attainment plan with a “no-net-increase” permitting program or an “all feasible measures” demonstration.

For particulate matter, ambient air quality standards have been established for both PM10 and PM2.5. California has standards for average PM10 concentrations over 24-hour periods and over the course of an entire year, which are 50 and 20 µg/m³, respectively. (The notation “µg/m³” means micrograms of pollutant per cubic meter of ambient air.) For PM2.5, California only has a standard for average PM2.5 concentrations over a year, set at 12 µg/m³, with no 24-hour-average standard. Nevada County is in compliance with all of the federal particulate matter standards, but like most California counties it is out of compliance with the state PM10 standards. Particulate-matter is identified by the maximum particle size in microns as either PM2.5 or PM10. PM2.5, is mostly smoke and aerosol particles resulting from woodstoves and fireplaces, vehicle engines, wildfires, and open burning. PM-10 is a mixture of dust, combustion particles (smoke) and aerosols from sources such as surface disturbances, road sand, vehicle tires, and leaf blowers.

Table 1: Attainment Status by Northern Sierra Air Quality Management District of State and Federal Air Quality Standards. In addition, the entire district is either Attainment or Unclassified for all State and Federal NO₂, SO₂, Pb, H₂S, visibility reducing particles, sulfates, and vinyl chloride standards.

Pollutant	State Designation	Federal Designation
Ozone (O ₃)	Nevada County: Non-attainment (due to overwhelming transport)	<u>2008 O₃ Standard (75 ppb)</u> Western Nevada County: Serious Non-attainment;
		<u>2015 O₃ Standard (70 ppb)</u> Western Nevada County: Serious Non-attainment;
PM ₁₀	Nevada County: Non-attainment	Unclassified
PM _{2.5}	Nevada County: Unclassified	<u>2012 Annual Standard (12µg/m³)</u> Nevada County: Unclassifiable/Attainment
		<u>2012 24-hour Standard (35µg/m³)</u> Unclassifiable/Attainment
CO	Nevada: Unclassified	Unclassifiable/Attainment

Ultramafic rock and its altered form, serpentine rock (or serpentinite), both typically contain asbestos, a cancer-causing agent. Ultramafic rock and serpentine are likely to exist in several areas of western Nevada County. The area of the project site is not mapped as an area that is likely to contain ultramafic rock (California Department of Conservation, 2000). Natural occurrences of asbestos are more likely to be encountered in, and immediately adjacent to areas of ultramafic rock.

An evaluation of project impacts related to greenhouse gas emissions is provided in Section 8 of this Initial Study.

Sensitive receptors are facilities where sensitive receptor population groups (children, the elderly, the acutely ill and the chronically ill) are likely to be located. These land uses include residences, schools, playgrounds, child-care centers, retirement homes, convalescent homes, hospitals and medical clinics. Noise-sensitive receptors in the project area include residential dwellings that are adjacent to the project corridor.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Conflict with or obstruct implementation of the applicable air quality plan?		✓			A, B, 15
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?		✓			A, B, 17, 18, 19
c. Expose sensitive receptors to substantial pollutant concentrations?		✓			A, B, C
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			✓		A,B

Impact Discussion:

3a Nevada County’s General Plan, Chapter 14 Air Quality Element, contains numerous policies to protect air quality in Nevada County. With the exception of General Plan Air Quality Element Policy 14.7A, which requires compliance with Northern Sierra Air Quality Management District (NSAQMD) Rule 226, the Nevada County General Plan Air Quality Element policies are intended to apply to development that generates new residents or new employees. By assessing air pollution and emissions associated with the proposed project and recommending mitigation measures based on thresholds of significance established by the NSAQMD, the project as proposed would comply with NSAQMD regulations.

The California Emissions Estimation Model (CalEEMod) provides a means to estimate potential emissions associated with both construction and operation of land use projects. For the proposed dredging and disposal project, impacts would occur only during the construction phase of the project as there is no operational project phase. Estimated construction impacts were determined by inputting the parameters specific to the proposed dredging and disposal project into CalEEMod version 2022.1.1.21. The project includes two construction phases: site preparation (of the disposal site) and grading in the lakebed (which includes hauling the material to the disposal site). It was assumed that each round of dredging and disposal would move up to 50,000 cubic yards of material within a 3-week period. The report therefore identified the impacts from one summer of dredging and disposal; cumulative impacts are evaluated by multiplying these effects over four different seasons spaced three to four years apart. These parameters resulted in the most conservative estimate possible because NSAQMD thresholds are daily rather than cumulative. When construction occurs over longer periods of time, the impacts for criteria pollutants are distributed over a longer time and are generally less impactful.

Table 2 below shows the NSAQMD thresholds for criteria air pollutants relative to the maximum daily emissions of the project on any given day of dredging and disposal.

Table 2. Project Construction Air Quality Impacts – Unmitigated and Mitigated

Pollutant	NSAQMD Level B Threshold	NSAQMD Level C Threshold	Project Impacts – Unmitigated	Project Impacts – Mitigated
NOx	24-136 lbs/day	> 136 lbs/day	30 lbs/day max	13 lbs/day max
ROG	24-136 lbs/day	> 136 lbs/day	3 lbs/day max	1 lb/day max
PM10	79-136 lbs/day	> 136 lbs/day	129 lb/day max	97 lbs/day max
CO	N/A	N/A	23 lbs/day	21 lbs/day max
*All projects require basic mitigations under Level A, which is under 24 pounds per day of any pollutant shown.				
Source: CAPCOA, CalEEMod Version 2020.4.0 2022				

As shown in Table 2, the project would result in Level B impacts for NOx and PM10 if no mitigation is included. NOx pollution is emitted by automobiles, trucks and various non-road vehicles (e.g., construction equipment) and is likely due to the compact and fast-paced construction schedule of the proposed project. Therefore, best management practices for construction emission controls should be implemented by this project for NOx emissions reductions as shown in **Mitigation Measure 3A**, which includes the use of the highest tier diesel engines available (Tier 4 final rule) and limiting idling time to less than 5 minutes. With the implementation of these measures, there will be a reduction in NOx to Level A impacts.

PM10 emissions are due both to diesel engine exhaust from construction vehicles and the quantities of earth movement included in the project. The suppression of dust, along with cleaner-running engines, will assist with lowering PM10 levels. The proposed project involves the disturbance of well over an acre and will therefore trigger the requirement for a Dust Control Plan to mitigate construction impacts on air quality, as shown in **Mitigation Measure 3B**. With implementation of a Dust Control Plan, PM10 will be reduced but will remain within the Level B threshold according to CalEEMod results. Reasonable precautions would include watering vehicle traffic areas, as well as any stockpiled material, and limiting traffic speeds during construction. As shown in **Mitigation Measure 3C**, the project will also be required to find alternatives to open burning of vegetative materials at the dredge disposal sites. Such methods will be required to be noted on the improvement plans prior to approval.

The proposed project is not located near any known deposits of ultramafic or asbestos-containing rock or soils, as shown in Figure 6 below. With implementation of Mitigation Measures 3A, 3B, and 3C, the potential for this project to conflict with applicable air quality plans, violate any air quality standards during the construction phase, or expose sensitive receptors such as residents along the haul roads to substantial pollutant concentrations would be less than significant with mitigation. As previously noted, there is no operational phase of the project.



Figure 6: Ultramafic Rock Units in Nevada County. Source: California Department of Conservation, Division of Mines and Geology, August 2000.

3d The proposed project is a construction project to remove sediment from the lakebed and deposit it at an off-site location. This project has occurred numerous times and there have been no past issues with this work resulting in odors. Therefore, it is anticipated that the project would result in **no impact** related to exposing sensitive receptors to odors that could affect a substantial amount of people.

Mitigation Measures: To offset potentially adverse air quality impacts associated with the project activities, the following mitigation measures shall be required and shall be included in the improvement plans for the project:

Mitigation Measure 3A: Reduce emissions during construction. The following are the minimum mitigation measures designed to help reduce project emissions related to construction. These measures shall be included as a note on all plans prior to issuance of all grading, improvement, and building permits:

1. The mobile off-road construction equipment in use at any time on the project shall be equipped with Tier 4 engines.
2. Construction equipment idling time shall be limited to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). All construction equipment shall also be maintained and properly tuned in accordance with manufacturer's specifications. Clear signage shall be provided for construction workers at all access points.
3. In addition to these measures, all statewide air pollution control regulations shall be followed, including diesel regulations (which may be accessed at www.arb.ca.gov/diesel/diesel.htm).

Timing: Prior to issuance of grading and improvement permits

Reporting: Permit issuance

Responsible Agency: *Planning Department / NSAQMD*

Mitigation Measure 3B: Prepare a Dust Control Plan. Prior to issuance of grading and improvement permits, submit a Dust Control Plan to Northern Sierra Air Quality Management District, if more than one (1) acre of natural surface area is to be altered or where the natural ground cover is removed, and gain their approval. The disturbance of natural surface area includes any clearing or grading. Include the approved Dust Control Plan on the project plans using clear phrasing and enforceable conditions, under its own heading. Provide evidence of NSAQMD approval to Nevada County with permit application submittal. The plan shall include but not be limited to the following measures, which shall also be included on all construction plans:

1. The construction contractor shall implement all dust control measures in a timely manner during all phases of project construction.
2. All material excavated, stockpiled, or graded shall be sufficiently watered, treated, or covered to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard.
3. All land clearing, grading, earth moving, and excavation activities on the project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 miles per hour.
4. All inactive disturbed portions of the disposal site shall be covered, seeded, or watered until a suitable cover is established per the requirements of the grading plan.
5. All material transported off-site shall be either sufficiently watered, or securely covered, or a freeboard of two feet shall be maintained in the bed of the transport vehicle to prevent fugitive dust emissions.
6. The construction contractor shall water the disposal site during initial site preparation and grading.
7. The construction contractor shall water unpaved construction roads for regular stabilization of dust emissions.
8. The construction contractor shall limit vehicle speeds on unpaved roads to a speed of 15 mph.
9. Paved streets adjacent to the project shall be swept or washed at the end of each day, or as needed to remove excessive accumulation of silt and/or mud which may have resulted from activities at the project site.

Timing: *Prior to issuance of grading and improvement permits*

Reporting: *Permit issuance*

Responsible Agency: *Planning Department*

Mitigation Measure 3C: Use Alternative Methods to Open Burning for Vegetation Disposal. The following note shall be included on all grading and improvement plans: "Open burning of site-cleared vegetation is prohibited. Among suitable alternatives are chipping, grinding, hauling to an approved disposal site, cutting for firewood, and conversion to biomass fuel."

Timing: *Prior to issuance of grading and improvement permits*

Reporting: *Permit issuance*

Responsible Agency: *Planning Department / NSAQMD*

4. Biological Resources

Existing Setting:

Lakebed

Lake Wildwood is a man-made lake surrounded by residences, beaches, and lawns. These areas contain largely non-native vegetation which provides some habitat value for common, local wildlife but limited value for special-status species. The access areas are devoid or nearly devoid of ruderal vegetation. The Lake Wildwood Association (LWA) is the owner of this parcel as well as the disposal site parcels.

Habitats for wildlife are exclusively associated with the open water habitat that coincides with the extent of the three potential future sediment removal locations. When dewatered, wildlife species that typically use these areas will have access to other parts of the lake that will remain inundated. Habitat will be restored to typical conditions once the lake is rewatered.

There is no Soil Survey Geographic Database (SSURGO) data for the lakebed/Project Area, as it is classified as a waterbody. The soils in surrounding uplands are classified by SSURGO as primarily loam with some alluvial land (clayey) and rock outcrops.

Lower Deer Creek runs from the outlet at Anthony House Dam to the confluence with the lower Yuba River, approximately 0.8 mi downstream of Englebright Dam. Lower Deer Creek is approximately 4.3 mi long and is met by Squirrel Creek and several ephemeral tributaries before joining the lower Yuba River. Most of lower Deer Creek runs through a steep-walled bedrock canyon and is characterized by variable gradient channel, ranging from less than 0.1% to greater than 31% slope. The creek contains steep boulder roughs, cascades, and step-pool habitats. The stream bed substrate throughout most of the creek is dominated by bedrock and boulders, though the lowest 0.3 mi contains gravels suitable for spawning by salmonids. A steep cascade at the upstream end of this reach blocks upstream movement by migrating adult salmonids and marks the upstream extent of anadromous access. Riparian vegetation along lower Deer Creek includes mixed conifer-hardwood forest in upslope areas and herbaceous/shrub growth closer to the channel.

Three of the four special-status fish species, distinct population segments (DPSs), or evolutionarily significant units (ESUs) have the potential to occur in lower Deer Creek downstream of Lake Wildwood (see Figure 7):

- Central Valley spring-run Chinook salmon ESU (*Oncorhynchus tshawytscha*)
- Central Valley fall-/late fall-run Chinook salmon ESU (*O. tshawytscha*)
- Central Valley steelhead DPS (*O. mykiss*)

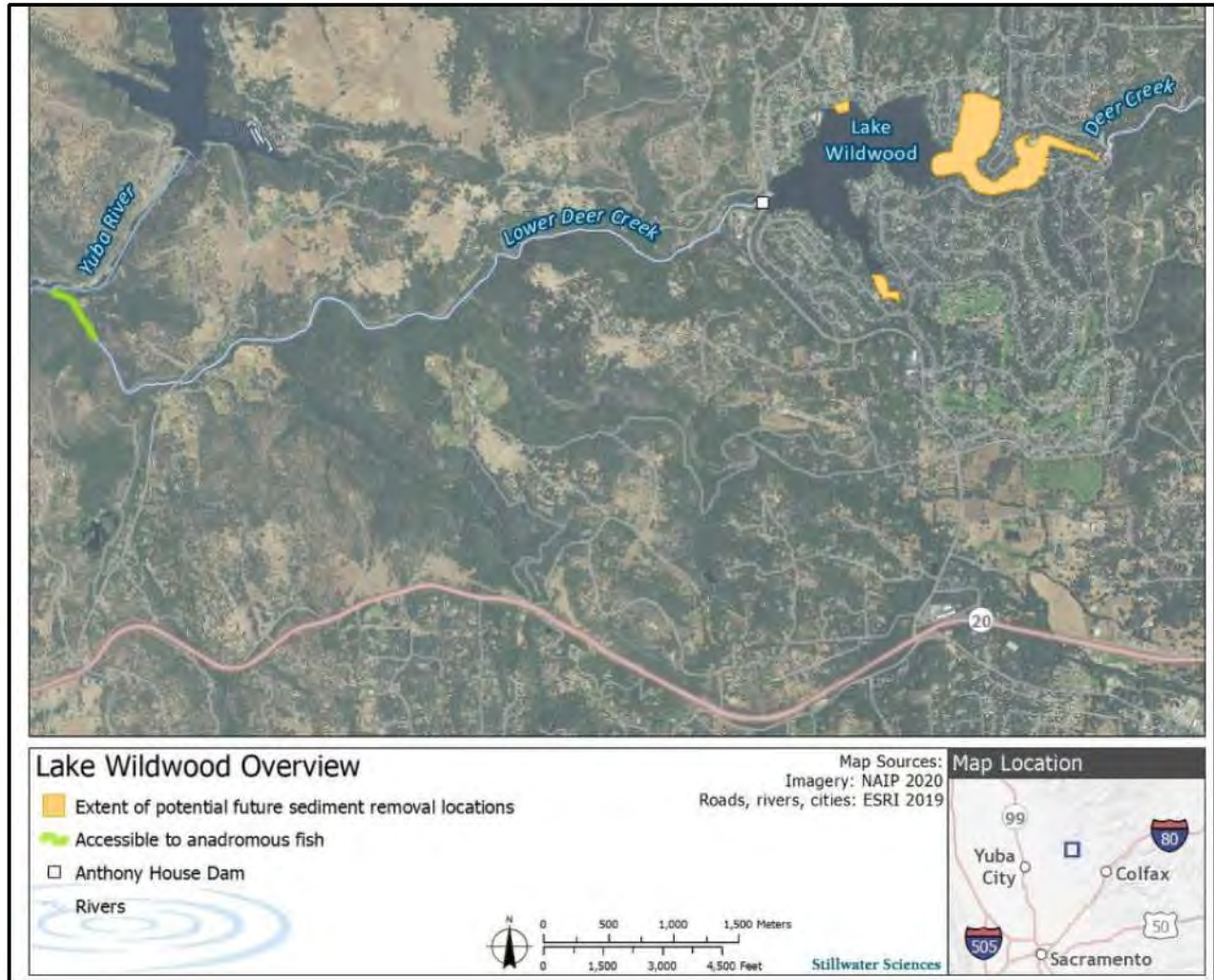


Figure 7 - Lake Wildwood & Lower Deer Creek

Central Valley spring-run Chinook salmon have the potential to occur in lower Deer Creek during the proposed drawdown period (i.e., September–October). Chinook salmon are known to spawn in the lower Yuba River between Englebright Dam and the mouth of lower Deer Creek (PSMFC 2013). Furthermore, the reach of lower Deer Creek immediately upstream of the mouth contains suitable spawning habitat (SSI 2016, 2017, 2020) and is designated critical habitat for the Central Valley spring-run Chinook ESU (NMFS 2005). Chinook salmon have been documented spawning in this reach during and after previous drawdowns. It was not possible to definitively assign spawners to a particular run during these surveys because they occurred in October, when both spring-run and fall-run Chinook could be present. Though fall-run individuals typically represent a much larger proportion of the overall Chinook salmon spawning population in the lower Yuba River, spring-run Chinook salmon have been regularly documented during annual escapement surveys (PSMFC 2009) and could be present in the vicinity of lower Deer Creek during the proposed drawdown period of future dredging operations.

Central Valley fall-/late fall-run have the potential to occur in lower Deer Creek during the proposed drawdown period. As described above, Chinook salmon have been documented spawning in this reach during and after previous drawdowns. It was not possible to definitively assign spawners to a particular run during these surveys because they occurred in October, when both spring-run and

fall-run Chinook could be present. Fall-run individuals typically represent a much larger proportion of the overall Chinook salmon spawning population in the lower Yuba River and could be present in the vicinity of lower Deer Creek during the proposed drawdown period of future dredging operations. Late fall-run Chinook salmon typically arrive and spawn in the lower Yuba River after the conclusion of the proposed drawdown period. However, low numbers of very early arriving individuals could be present in the vicinity of lower Deer Creek towards the end of the proposed drawdown period.

Steelhead redds have been documented in the lower Yuba River between Englebright Dam and the mouth of Deer Creek (PSMFC 2013). Likewise, the reach of lower Deer Creek immediately upstream of the confluence with the lower Yuba River contains suitable spawning habitat (SSI 2016, 2017, 2020) and designated critical habitat for CV steelhead (NMFS 2005). Steelhead were not observed in lower Deer Creek during spawning surveys conducted before, during, and after Lake Wildwood drawdowns in 2016, 2017, or 2020 (SSI 2016, 2017, 2020), though these surveys occurred outside the species' spawning period. Steelhead redds have been observed in the lower Yuba River near Deer Creek between January and March (PSMFC 2013), during the peak spawning period for the DPS (Moyle 2002) and well after the proposed drawdown period.

Five special-status wildlife species have the potential to occur in the Project Area:

- Western pond turtle (*Actinemys marmorata*): Western pond turtles may occur in the Project Area. While there are no records of turtle sightings in the queried databases (Section 2.2), turtles have been observed by residents in Lake Wildwood as well as the nearby golf course ponds; species identification has not been confirmed (e.g., western pond turtles versus red-eared slider [*Trachemys scripta elegans*]). The nearest confirmed western pond turtle observations are in Smartsville and Grass Valley (approximately 5 and 7 miles away, respectively) (CDFW 2022a). There is suitable aquatic and basking habitat in Lake Wildwood, though suitable upland nesting habitat may be limited with the amount of surrounding development.
- Common loon (*Gavia immer*): Common loons have been observed numerous times in the vicinity of Lake Wildwood (eBird 2022). They may occasionally use the area for foraging, but their breeding range is outside the Project region.
- White-tailed kite (*Elanus leucurus*): It is possible that white-tailed kites could use the Project Area for nesting; however, observations of the species are rare and nesting habitat is limited. In 2016 there was a reported observation of a white-tailed kite near the Lake Wildwood spillway (eBird 2022).
- Bald eagle (*Haliaeetus leucocephalus*): Bald eagles potentially use the Project Area for foraging and are commonly observed perched around the lake (eBird 2022). Bald eagles have commonly been observed at Lake Wildwood in recent years (eBird 2022), and there have been numerous reports of breeding and nesting activity near Peacock Point (on the north shore of Lake Wildwood) in 2019, 2021, and 2022 (eBird 2022).
- Yellow warbler (*Setophaga petechia*): There have been several reported observations of yellow warblers around lake Wildwood (eBird 2022). They are unlikely to breed in the vicinity of the Project.

One special-status wildlife species has the potential to occur only in Deer Creek downstream of the Project Area:

- Foothill yellow-legged frog (*Rana boylei*): Foothill yellow-legged frogs do not occur in the Project Area. However, there is one record of a single adult foothill yellow-legged frog

observed in 2016 at the confluence of the Yuba River and Deer Creek, approximately 0.9 mi southwest of Englebright Lake, and the population is presumed extant (CDFW 2022a).

Disposal Sites

These two parcels have been used historically for dredging disposal and have been largely graded. The vegetation on these parcels includes live oak/gray pine woodland, blue oak woodlands, ponderosa pine/California black oak woodland, riparian corridor, and disturbed areas. See Figure 8 below. While this area is in the range for special-status animal species such as the foothill yellow-legged frog and California spotted owl, there is no potential habitat for any special-status animal species on the project parcels. Special-status plant species occurring on the parcel include the Sierra foothills brodiaea (*Brodiaea sierrae*) and Humboldt lily (*Lilium humboldtii* ssp. *humboldtii*). There is no suitable habitat for other special-status plant species found in the USGS quadrangles surround the project area.

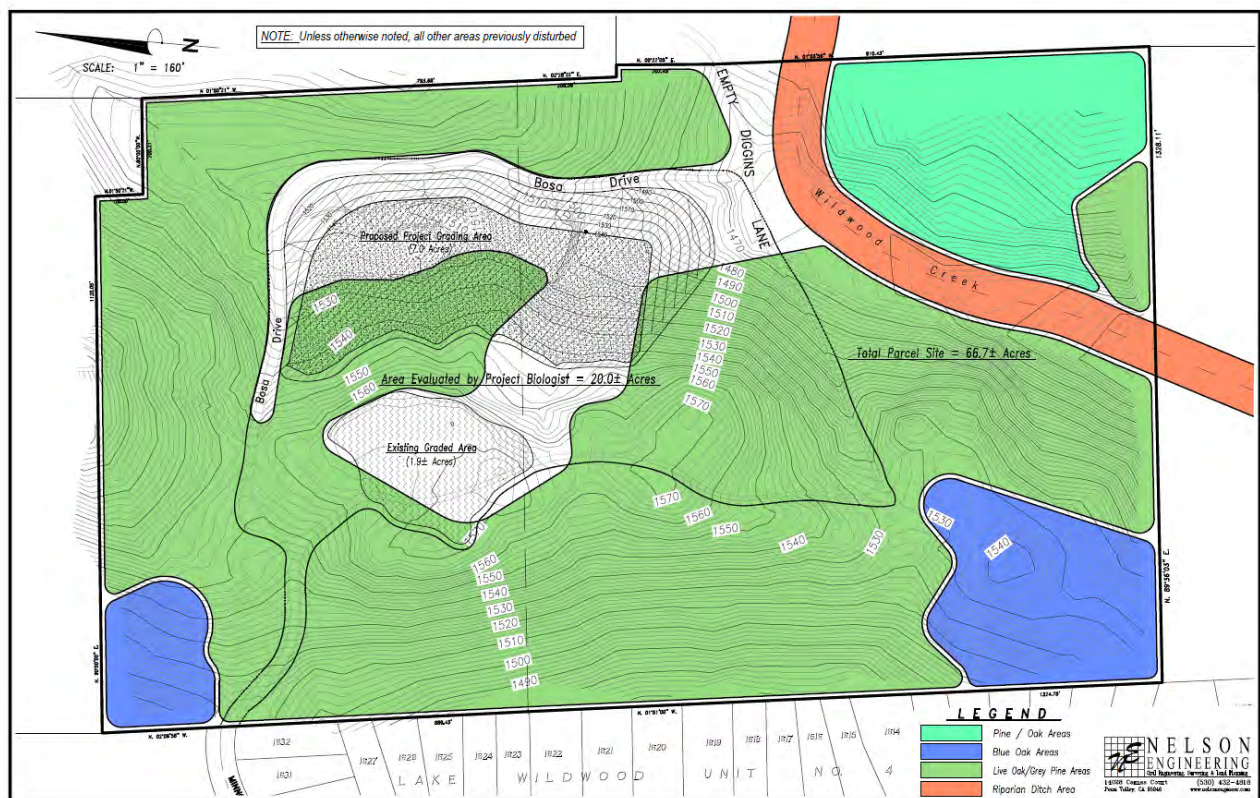


Figure 8– Disposal Sites Habitat Areas

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		✓			5, 6
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?		✓			5, 6
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				✓	5, 6
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		✓			5, 6
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		✓			4, 5, 6
f. Conflict with the provisions of an adopted Habitat Conservation Plan, or other approved local, regional, or state habitat conservation plan?				✓	5, 6

Impact Discussion:

4a Lakebed

Special-status plant species: Sediment removal operations would be entirely within the lakebed and away from the shoreline, and heavy equipment will not be used for removing sediment near the shoreline or any associated vegetation. Access routes are planned in areas devoid or nearly devoid of vegetation. Because the Project would not involve upland ground disturbance or the removal or alteration of any vegetation as described in **Mitigation Measure 4A**, the Project would have **less than significant impact with mitigation** on special-status plant species.

Special-status fish and wildlife species: Chinook Salmon. Artificially elevated streamflow in lower Deer Creek produced by drawdown releases could attract adult Chinook salmon into lower Deer Creek, as has occurred during previous drawdowns (SSI 2016, 2017, 2020). However, lower Deer Creek contains suitable spawning habitat for Chinook salmon, and

attraction into the creek alone would not constitute an adverse effect. Local fish biologists contracted to monitor salmonid activity in lower Deer Creek during a drawdown in 2016 observed adult Chinook salmon on the final day of releases (SSI 2016). Counts of adult salmon and newly constructed redds peaked one week after the end of the drawdown. Spawning activity continued into November, during which time a natural storm event produced peak flows over 300 cfs. No stranded salmon were observed during or after the drawdown or storm event. Furthermore, all redds identified during monitoring remained submerged throughout the observation period, and the storm event did not result in any noticeable redd scour (SSI 2016). In situ water quality monitoring results also indicated that releases from Lake Wildwood did not reduce the thermal or chemical suitability of water for incubating eggs or alevins (SSI 2016).

An apparent stranding event occurred in fall 2020 following a drawdown of Lake Wildwood. At that time, local biologists were denied access by the landowner to the property that abuts lower Deer Creek and could not actively monitor salmonid activity during the drawdown. However, there were anecdotal reports of adult Chinook salmon using a pool that did not appear to contain suitable spawning habitat, located just below the upstream extent of anadromous access (CDFW, pers. comm). There were reports of a boulder situated in the pool tail that appeared to restrict downstream movement of fish at baseflow. As such, fish were apparently unable to exit the pool (SSI 2020). In coordination with CDFW, LWA released a pulse of water into lower Deer Creek; the resulting flow increase allowed fish to exit the pool (SSI 2020). However, some individuals apparently remained and were presumed to have perished without spawning. Thus, under certain circumstances, artificially elevated flows in lower Deer Creek have the potential to adversely affect Chinook salmon by contributing to pre-spawn mortality.

A significant contributing factor to the apparent pre-spawn mortality event in 2020 was an insufficient estimation of the relationship between adjustments made at the newly installed dam outlet valve and downstream flows in lower Deer Creek. The resulting release pattern deviated from the planned pattern. Ramping rates and peak flows exceeded those characteristic of Deer Creek's natural flow regime, and a rapid recession to baseflow provided insufficient opportunity for Chinook salmon to exit particular pools after releases ended.

Moving forward, the Project incorporates lessons learned from these events into mitigation measures that would avoid or minimize adverse effects on adult Central Valley spring-run or fall-/late fall-run Chinook salmon. By gradually and incrementally adjusting releases over days or weeks and monitoring the resultant streamflow changes in real time as described in **Mitigation Measure 4F**, the valve operator would avoid drastic fluctuations such as those produced by the 2020 drawdown (Figure 8). The proposed drawdown approach would produce stream flows in lower Deer Creek that do not appreciably differ from those to which Central Valley salmonids are adapted. The gradual ramp-up to peak flow—which would remain within the range of magnitudes characteristic of Deer Creek's natural fall flow regime—would avoid or minimize redd scour, and the gradual, extended flow recession would provide adult Chinook salmon with ample opportunity to exit drying pools as they would during the recession of a natural flow pulse. Implementation of mitigation measure **Mitigation Measure 4F** would reduce potentially significant effects on adult Central Valley spring-run or fall-/late fall-run Chinook salmon to *less than significant with mitigation*.

Furthermore, access has been granted to Sierra Streams Institute to monitor in situ water quality and salmonid activity before, during, and after drawdowns as described in **Mitigation Measure 4G**, which would make it possible for LWA to fine-tune appropriate corrective measures in coordination with resource management agencies.

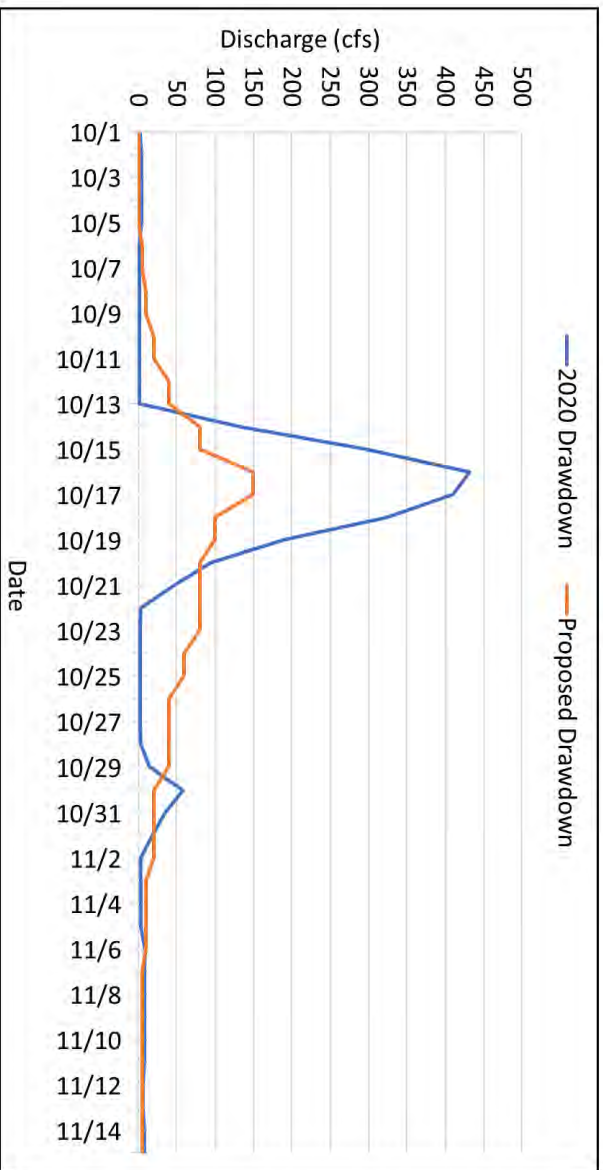


Figure 9-- Example comparison of the streamflow in lower Deer Creek during the 2020 Lake Wildwood drawdown and the proposed drawdown approach. Note that the timing of the proposed drawdown period is altered to facilitate comparison.

The Project would have less-than-significant effects on Central Valley spring-run or fall-/late fall-run Chinook salmon with the incorporation of **Mitigation Measure 4F**.

Central Valley steelhead. Based on the species' phenology, it is unlikely that spawning or pre-spawning adult anadromous CV steelhead would be present in lower Deer Creek during the proposed drawdown period, as evidenced by previous drawdown monitoring results (SSI 2016, 2017). Similarly, incubating steelhead eggs and alevins are not likely to occur in lower Deer Creek during this period. Thus, the Project is not likely to adversely affect these CV steelhead life stages. Rearing juvenile steelhead spawned in the same year as the drawdown or in the previous year (age 0+ and 1+) could be present during the proposed drawdown period. In situ water quality monitoring conducted during previous drawdowns indicates that releases from Lake Wildwood did not reduce habitat suitability in lower Deer Creek for juvenile steelhead. Thus, future drawdowns are not likely to induce such changes. Like adult salmonids, juveniles are adapted to withstand periodic fluctuations in streamflow that naturally occur in Deer Creek on a seasonal basis. Thus, the gradual release adjustments and peak flow magnitudes incorporated into the proposed drawdown approach would avoid or minimize adverse effects on juvenile steelhead by ensuring that individuals are able to respond to such fluctuations as they would a natural flow pulse (e.g., by seeking velocity refuge or otherwise moving to suitable habitat). Finally, salmonid activity monitoring in lower Deer Creek during future drawdowns would further reduce the likelihood of adverse effects on juvenile CV steelhead as described above for Chinook salmon. Thus, there would be a less-than-significant effect on juvenile CV steelhead.

Western pond turtle. Dewatering the dredging footprint could temporarily displace turtles, if present, from preferred habitat. However, there is abundant habitat of identical quality available in the remainder of Lake Wildwood immediately adjacent to the dredging footprint. Construction personnel will be provided a Worker Environmental Awareness training, including what to do in the event turtles are observed as described in **Mitigation Measure 4H**. If any turtles are observed during Project implementation, work would cease until the turtle leaves the area of their own volition as described in **Mitigation Measure 4I**.

Except for two D6N-LGP Swamp Cats used to move and compile sediment within the dredging footprint, all vehicles and heavy equipment used during Project implementation would operate exclusively on pre-existing paved roads as described in **Mitigation Measure 4D**, further minimizing the risk of adverse effects on any western pond turtle nests that could exist in the Project Area. The D6N-LGP Swamp Cats would operate only in the recently inundated dredging footprint where turtle nests are not likely to occur. The Project would have less-than-significant effects on western pond turtles.

Foothill yellow-legged frog. All Project activities, including lake drawdown, would occur between September and November, avoiding most of the foothill yellow-legged frog breeding season when immobile egg masses and/or less mobile tadpoles could be present in lower Deer Creek. Adult frogs that may use lower Deer Creek for overwintering are adapted to periodic, seasonal increases in streamflow, and are capable of withstanding flows similar to those produced by naturally occurring storm events. The Project would have less-than significant effects on foothill yellow-legged frog.

Special-status resident and migratory birds. Implementation would occur outside of the breeding season of the species that could occur in the vicinity of the Project Area, and the Project would not involve ground disturbance or vegetation removal that could alter the long-term suitability of any nesting habitat in the Project Area.

Noise or vibration from heavy equipment operation during sediment removal could temporarily disturb roosting birds or interrupt foraging behavior of individuals present in the immediate surroundings. However, injury or mortality caused by direct contact with heavy equipment is unlikely because excavation would only occur in open areas and adult birds are sufficiently mobile to avoid equipment. Furthermore, bald eagle, common loon, and white-tailed kite are unlikely to forage throughout most of the Project Area during implementation, since the exposed sediment in the dredging footprint would not constitute suitable foraging habitat. The Project would have less-than significant effects on special-status resident or migratory birds.

Disposal Sites

The Sierra foothills brodiaea, *Brodiaea sierrae*, a CNPS 4.3 ranked species was found in abundance, particularly in the western edge to the northwest corner and up to the project area road in open areas where more than 200 plants were observed. There were only 5 individual plants of *B. sierrae* located within the project area and seven individuals located west of the project area. The project would result in the removal or “take” of approximately 3 individual plants. As detailed in the Management Plan to protect these species as required by Nevada County Land Use and Development Code Section L-II 4.3.12, **Mitigation Measure 4L** requires planting of 9 Sierra Foothills brodiaea into a non-impacted area as shown in Figure 9 to compensate for the loss of these protected plants due to the proposed

grading work, ensuring there is a **less than significant impact with mitigation**. The other special-status species, Humboldt lily, is located approximately 190 feet beyond the impact area for the proposed grading and dredge disposal, so there is less than significant impact to this species. There are no special-status animal species on the site, and none will be impacted by this project.

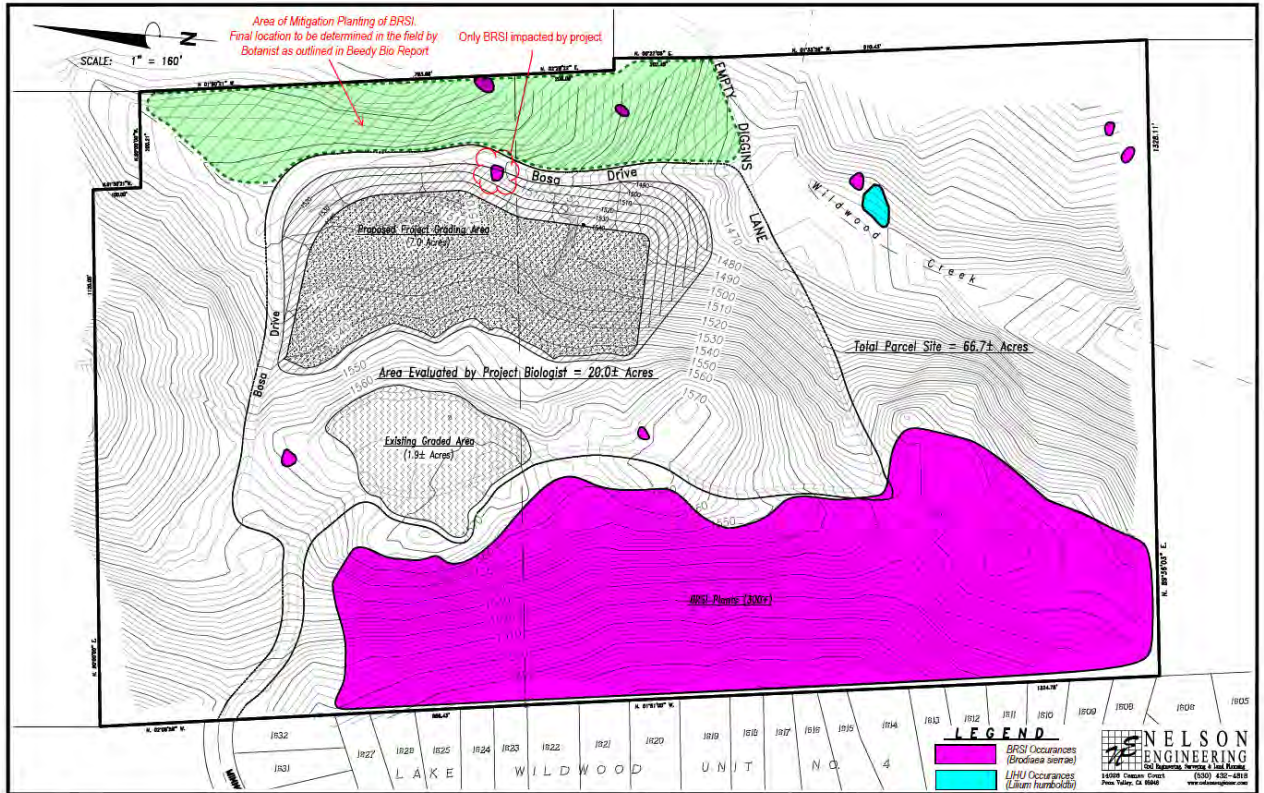


Figure 10-- Special-Status Plants on Disposal Sites

4b Lakebed

While a riparian corridor exists along lower Deer Creek downstream of the Project Area, there would be no effect on this habitat from Project implementation. While the lake drawdown would temporarily alter streamflow in lower Deer Creek (potentially changing the saturation of adjacent soils/subsurface area) the alterations would be well within those produced by natural storm events and would not adversely affect overlying riparian vegetation.

Sediment removal operations would be entirely within the lakebed and away from the shoreline, and heavy equipment will not be used for removing sediment near the shoreline or any associated vegetation. Access routes are planned in areas devoid or nearly devoid of ruderal vegetation. The Project would not involve any ground disturbance or vegetation removal as described in **Mitigation Measure 4A**. Therefore, there would be **less than significant effect with mitigation** on riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations, or by CDFW or USFWS.

Disposal Sites

There is a riparian corridor present on the southern disposal site surrounding Wildwood Creek. The proposed work would take place approximately 170 feet from the riparian ditch area, and is not anticipated to affect the riparian corridor. **Mitigation Measure 4N** requires avoidance of spillage and other contaminants which will also protect the quality of the riparian corridor on the site. Therefore, there would be **less than significant effect with mitigation** on riparian habitat.

4c Lakebed & Disposal Site

The Project Area does not contain state or federally protected wetlands. Sediment removal operations will occur below the ordinary high-water mark of the lake once water levels are reduced. Access and staging will be restricted to previously disturbed and/or developed locations around Lake Wildwood. The Project would have **no impact** on federally protected wetlands.

4d Lakebed

Movement. Artificially elevated streamflow's in lower Deer Creek produced by drawdown releases could attract Central Valley spring-run or Central Valley fall-/late fall-run Chinook salmon into the reach just above the confluence with the lower Yuba River. Under baseflow conditions, movement between certain pools within this reach may be restricted. Thus, movement of individual fish present in lower Deer Creek during the drawdown could be restricted upon return to baseflow conditions. However, the drawdown approach described in **Mitigation Measure 4F** is designed to facilitate the volitional movement out of these pools by any fish that may be present, by making release adjustments in lower Deer Creek in stepwise fashion so that discharge would remain stable for a period of at least 24 hours after each adjustment. Furthermore, monitoring conducted by a contracted fish biologist during and after drawdowns as described in **Mitigation Measure 4G** would allow LWA to identify any potential effects on native fish movement in lower Deer Creek and implement appropriate protective measures in coordination with resource management agencies.

Nursery sites. The Project would not impede the use of any native wildlife nursery sites. Project implementation would occur outside of the nesting season for native resident and migratory birds and would therefore not affect any rookeries that could exist in the vicinity of the Project Area. No mammal, amphibian, or reptile nursery sites are known to exist in the Project Area, given its placement in a residential area of limited habitat value. Incubating salmonid eggs or alevins and rearing juvenile salmonids could be present in lower Deer Creek during the drawdown. However, their use of habitat in this area would not be impeded by Project implementation. Artificially augmented stream flows in lower Deer Creek produced by the drawdown would not exceed peak magnitudes or ramping rates characteristic of the natural flow regime. Salmonids in Central Valley watersheds are adapted to seasonal fluctuations in streamflow and are capable of withstanding flow events similar to those produced by seasonal rainstorms. Based on data collected during previous drawdowns, and with implementation of **Mitigation Measures 4F and 4G**, releases from Lake Wildwood would not reduce the thermal or chemical suitability of water for incubating or rearing juvenile salmonids in lower Deer Creek (SSI 2016, 2017, 2023). Any Project-related effects on the movement of native resident or migratory fish or wildlife species, or to the use of native wildlife nursery sites, would be **less than significant with mitigation**.

Disposal Sites

There are no significant animal populations on this site. Any fish using Wildwood Creek would not be affected by this project as the nearest worksite is over 100 feet from the creek. **Mitigation Measure 4M** requires a nesting bird survey to ensure that there are no birds present before work commences that would be impacted by tree removal. Therefore, the impact on the movement of wildlife or use of wildlife nursery sites will be **less than significant with mitigation**.

4e Lakebed

The Nevada County Land Use and Development Code protects perennial and intermittent/seasonal watercourses with non-disturbance buffers of 100 and 50 feet, respectively. No development is allowed within these buffers unless a Management Plan is prepared by a qualified biologist or botanist that avoids or minimizes impacts to the resource. A Watercourse Management Plan was prepared for this project, and includes **Mitigation Measures 4A-4I** which require avoidance of removing vegetation, testing of dredge spoils, proper disposal in upland locations, limitations on equipment and vehicular movement, stabilization of sediments, water quality monitoring, correct handling of possible pollutants and contaminants. Additionally, specific measures to minimize the adverse effects on special-status salmonids and western pond turtles, along with training of all workers on site, will ensure that the impact to watercourses and their habitats is **less than significant with mitigation**.

Disposal Sites

Dredge disposal will impact landmark oak groves, which are protected under the Nevada County Land Use and Development Code. Landmark groves are defined as hardwood tree groves with 33+% canopy closure, and are preserved to protect valuable wildlife habitat. Approximately 1.5 acres of landmark groves will be removed to make space for placement of dredge spoils. A Management Plan was prepared that includes mitigation measures to compensate for the impact to landmark oak groves by paying a fee to the Bear Yuba Land Trust's Oak Woodland Conservation Fund Plan as described in **Mitigation Measure 4J**. **Mitigation Measure 4K** also requires fencing to establish an environmentally sensitive area around the remaining oaks to protect them from further potential impacts by equipment or grading activities. Special-status species and their habitats are also protected under this code, and a Management Plan was prepared to mitigate impacts to the Sierra foothills brodiaea. The replanting of these species to compensate for the anticipated take of three plants, as described in **Mitigation Measure 4L** will bring the impacts to **less than significant with mitigation**. Finally, to ensure compliance with these mitigation measures, **Mitigation Measure 4O** requires that the applicant distribute copies to all contractors prior to grading and construction.

4f No conservation plans currently include the project area. There would be **no impact**.

Mitigation Measures: To reduce potential impacts to sensitive biological resources, the following mitigation shall be noted on the project construction plans for implementation during project construction:

Mitigation Measure 4A: No vegetation removal. The following note must appear on all grading plans: No vegetation will be removed or otherwise affected by the sediment removal or dewatering activities at the lakebed site. All equipment and machinery will

enter/exit at pre-established routes preventing any adverse effects to the lake bank or associated vegetation. When possible, all construction vehicles, equipment and machinery will enter and exit along one route.

Timing: *Prior to grading/building permit issuance and during construction*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 4B: Sediment Testing. Sediment to be removed will be tested for solid phase metals (e.g., California Administrative Manual [CAM] 17 metals and hexavalent chromium) for comparison to California Department of Toxic Substances Control (DTSC) and EPA Regional screening levels, with further testing and appropriate disposal as required for any soils exceeding the corresponding Total Threshold Limit Concentrations (TTLCs) for designation as hazardous waste. This requirement shall appear on all grading plans.

Timing: *Prior to building permit issuance and during construction*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 4C: Upland Disposal. All sediment removed from Lake Wildwood would be disposed of at an acceptable upland location and not placed within, or where it can enter into, waters of the United States/waters of the State. All disposal areas must be shown on the grading plans.

Timing: *Prior to building permit issuance and during construction*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 4D: Limit Equipment and Vehicles. The following note must appear on all grading plans: Heavy equipment and vehicular movement will be limited to the Project Area, existing access roads and predetermined staging areas.

Timing: *Prior to building permit issuance and during construction*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 4E: Water Quality Best Management Practices. The following measures include Best Management Practices that would be implemented during and after sediment removal to minimize potential direct or indirect adverse effects to water quality and adjacent waters of the United States and must appear on all building/grading plans:

1. To prevent sediment material from entering any watercourse, a shallow canal shall be cut into the lakebed to divert water from the Deer Creek inlet away from the excavation site.
2. Access points shall be on stabilized ground to minimize the tracking of sediment onto roads. If sediment were tracked onto a roadway, the sediment would be removed by shoveling and then transporting it to the sediment disposal area.
3. The color and quality of the lake water shall be monitored daily by the release valve operator during dewatering to ensure no visibly turbid water is released from the lake. LWA would discontinue the release into Deer Creek if lake water becomes turbid due to rain or for any other reason.
4. All pollutants that occur on site during construction shall be handled and disposed of in a manner that does not cause contamination of surface water (or ground runoff).

5. Spill prevention measures (i.e., the use of drip pans) shall be implemented when equipment or machinery is staged below the high-water mark.
6. Vehicles and construction equipment shall be inspected daily for fuel and/or hydraulic fluid leaks; if a leak is identified, use of the vehicle/equipment would be discontinued until repairs are completed and the leak is stopped.
7. Maintenance and repair of equipment or machinery—or other activities that may result in discharge or spillage of pollutants to the ground or surface water—would be conducted in upland areas using spill prevention measures.
8. Contaminated surfaces would be cleaned immediately following any discharge or spill incident.

Timing: *Prior to building permit issuance and during construction*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 4F: Drawdown Approach. LWA would implement a drawdown approach that has been developed in coordination with CDFW to avoid or minimize adverse effects on special-status salmonids, as follows:

The general progression of the drawdown would involve a gradual ramp-up from baseflow in lower Deer Creek to peak discharge, followed by a gradual recession and return to baseflow over the course of approximately 20–25 days. The approach would produce a peak discharge of no more than 150 cfs which would be maintained for 24 hours. Release adjustments would be made in stepwise fashion, so that discharge measured at the Smartsville Gage would remain stable for a period of at least 24 hours after each adjustment. Streamflow magnitudes and ramping rates incorporated into this approach would be within the range of values produced by seasonal storms in the Deer Creek watershed. Under this approach, the water surface elevation in Lake Wildwood would reach the target reduction of 10–12 feet.

The stepwise drawdown would be initiated in September. The proposed drawdown approach is estimated to produce a 12-foot drop in lake water levels by late October or early November or sooner. The flow rates at any time may be adjusted based on feedback from the adaptive monitoring system.

Timing: *Prior to building permit issuance and during construction*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 4G: Monitoring and Adaptive Management Program. LWA would implement a monitoring and adaptive management program to identify potential Project-related effects on special-status salmonids in lower Deer Creek and implement appropriate corrective actions, if necessary.

LWA would contract Sierra Streams Institute (SSI) to monitor salmonid activity in lower Deer Creek before, during, and after drawdowns. Monitoring would be contingent on safe access provided with the consent of the property owner of the parcel adjacent to the anadromous reach of lower Deer Creek.

Monitoring components would include in situ measurements of water temperature, dissolved oxygen (DO), pH, turbidity, and conductivity, as well as redd counts, carcass counts, and visual assessments of potential stranding risk.

If SSI were to identify potential effects on special-status salmonids during a drawdown (i.e., increased stranding risk or exceedance of a relevant water quality threshold), LWA would collaborate with CDFW to implement corrective actions (e.g., extending the release period to allow fish to move downstream and out of pools).

A report summarizing monitoring results would be prepared and submitted to CDFW before the end of the calendar year in which monitoring occurred. Information gathered during each drawdown would be used to inform the drawdown approach for subsequent sediment removal operations as needed.

Timing: *Prior to building permit issuance and during construction*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 4H: Worker Environmental Awareness Training. All contractors and equipment operators will be provided Worker Environmental Awareness Training to educate them on the environmental resources of the project area, information on state and federal laws protecting water resources, and terms and conditions described in project permits. Training will include the potential for western pond turtles to be present, and measures to avoid injury. Copies of documentation provided and written confirmation of the date of distribution shall be provided to the Planning Department prior to final inspection of the grading/building permit.

Timing: *Prior to grading permit completion*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 4I: Western Pond Turtle Avoidance. If a western pond turtle is observed, they should be left alone to move out of the area on their own. Direct injury to pond turtles will be avoided by reducing vehicle speed and/or temporarily stopping work until the turtle leaves the area. The crew will avoid areas where turtles are observed to occur. These areas are to be marked with high-visibility flags to alert the crew of the presence of turtles. In the event a turtle does not leave on their own accord, a biologist may safely move the turtle to the nearest suitable habitat.

Timing: *Prior to grading permit completion*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 4J: Landmark Oak Grove Compensation. The removal of 1.5 acres of Landmark Oak groves can be compensated by contributing to the Bear Yuba Land Trust's "Oak Woodland Conservation Fund Plan" for the loss or disturbance of Landmark Oak Groves within Nevada County. To mitigate for impacts to Landmark Oak Groves, the project applicant shall pay an in-lieu fee to the Bear Yuba Land Trust according to the 2:1 mitigation ratio fee schedule for the loss of 1.5 acres, along with any required administrative fees. A receipt demonstrating payment of the fee shall be submitted to the Planning Department prior to issuance of grading permits.

Timing: *Prior to grading permit issuance*

Reporting: Agency approval of permits or plans
Responsible Agency: Planning Department

Mitigation Measure 4K: Establish ESA Fencing for Oak Woodlands to be Protected During Construction. The following note shall appear on all grading permit plans: Prior to construction, install protective fencing around environmentally sensitive areas (ESAs) to protect the adjacent, remaining oak groves from disturbance from trucks and other heavy equipment operating the project area to ensure that they are protected from any further damage.

Timing: Prior to grading permit issuance

Reporting: Agency approval of permits or plans
Responsible Agency: Planning Department

Mitigation Measure 4L: Transplant 9 Sierra foothills brodiaea plants to compensate for the “take” of 3 plants. Prior to issuance of permits for work in the sediment disposal site, the project applicant shall hire a County-approved biologist to transplant nine of the Sierra foothills brodiaea plants from the area of impact to suitable habitat areas on the project site to be determined by the project botanist. This measure represents a 3:1 replacement if the 3 plants that would be removed by this project. Photo evidence of a successful transplant shall be submitted to the Planning Department prior to grading permit issuance.

Timing: Prior to grading permit issuance

Reporting: Agency approval of permits or plans
Responsible Agency: Planning Department

Mitigation Measure 4M: Avoid Impacts to Nesting Birds. If any large trees >20” DBH are proposed for removal during the active bird nesting season (i.e., March 1 to July 31) they shall be inspected by a qualified biologist to ensure that no active bird nests are disturbed or destroyed. If, however, the tree is removed before March 1 or after July 31, no mitigation would be required. The following note shall be added to all improvement/grading/construction plans and the measures implemented as noted:

1. Tree removal and construction shall not take place during the breeding season (March 1 –July 31), unless supported by a report from the qualified biologist verifying that birds, including raptors, are not nesting in the trees proposed for removal or disturbance.
2. If construction is to take place during the nesting season (March 1–July 31), including any ground disturbance, preconstruction surveys for nesting raptors and migratory birds shall be conducted within 7 days prior to the beginning of construction activities by a County-approved biologist and in accordance with California and Federal requirements. If active nests are found, a buffer (protected area surrounding the nest, the size of which is to be determined by a qualified biologist) and monitoring plan shall be developed. Nest locations shall be mapped and submitted, along with a report stating the survey results, to the Nevada County Planning Department within one week of survey completion.
3. An additional survey shall be required if periods of construction inactivity (e.g., gaps of activity during grading, tree removal, road building, or structure assembly) exceed a period of two weeks, an interval during which bird species, in the absence of human or construction-related disturbances, may establish a nesting territory and initiate egg laying and incubation.

Timing: Prior to grading permit issuance

Reporting: Agency approval of permits or plans
Responsible Agency: Planning Department

Mitigation Measure 4N: Avoid Spillage of Oils and Other Contaminants. The following note shall be placed on all construction plans prior to issuance of permits: “The contractor shall exercise every reasonable precaution to protect the project site from pollution with fuels, oils, bitumen, calcium chloride, and other harmful materials. Construction byproducts and pollutants such as oil and washwater shall be prevented from discharging into adjacent ditches and shall instead be collected and removed from the site.”

Timing: Prior to grading permit issuance

Reporting: Agency approval of permits or plans
Responsible Agency: Planning Department

Mitigation Measure 4O: Provide Copies of Mitigation Measures to Contractors. To ensure the proper and timely implementation of all mitigation measures contained in this report, as well as the terms and conditions of any other required permits, the applicant shall distribute copies of these mitigation measures and any other permit requirements to the contractors prior to grading and construction. Copies of documentation provided and written confirmation of the date of distribution shall be provided to the Planning Department prior to final inspection of the grading/building permit.

Timing: Prior to grading permit completion

Reporting: Agency approval of permits or plans
Responsible Agency: Planning Department

5. Cultural Resources

Existing Setting:

In the project area, prehistoric use and occupation focused on major surface water sources and other natural resource areas, with particular emphasis given to stream confluences and to ecotones created at the interface of foothill/valley lands, elements of which are located within and/or near the present study area. All of the project area is situated within gently to moderately sloping lands which form the southeastern bluffs above Deer Creek and other, numerous ephemeral drainages and springs that feed Lake Wildwood. All of the project area has been affected by past ranching, logging and sediment deposition activities over the past 150 years.

It is unlikely that buried cultural materials related to prehistoric occupation are present at the project sites. Previous archaeological surveys of the lakebed and lands in the immediate vicinity with similar characteristics have not yielded cultural resources. Furthermore, decades of residential construction and related development at Lake Wildwood have not identified archaeological resources. A pedestrian survey of the dredge parcels for cultural resources also failed to identify any prehistoric resources within the area. One, historic-era resource, designated “Riffle Box Canal,” was identified at the dredge disposal site, recorded and recommended not eligible for inclusion on the CRHR under any of the relevant criteria.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?		✓			6, 7
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		✓			6, 7
c. Disturb any human remains, including those interred outside of formal cemeteries?		✓			6, 7

Impact Discussion:

5a-c The proposed project is located within the lakebed of Lake Wildwood and on two nearby rural dredge disposal sites. One historic-era resource, the “Riffle Box Canal” was identified at the dredge disposal site. However, this resource is located over 100 feet from the area of work, and will not be impacted. No other prehistoric, or archaeological resources were discovered during cultural resources inventory surveys. However, there is always potential for unanticipated discovery of cultural resources, including historic, pre-historic, and paleontological resources during project construction. This impact would be **less than significant** with the implementation of **Mitigation Measures 5A, 5B, and 5C** by requiring cultural awareness training for all workers on site, halting working and notifying applicable agencies if human remains or cultural materials are found, and completing an additional survey of the lakebed after the water has been drawn down.

Mitigation Measures: To offset potentially adverse cultural or historical resources impacts associated with the construction activities, the following mitigation measure shall be required:

Mitigation Measure 5A: Cultural awareness training. A consultant and construction worker tribal cultural resources awareness brochure and training program for all personnel involved in project implementation will be developed in coordination with interested Native American Tribes. The brochure will be distributed and the training will be conducted in coordination with qualified cultural resources specialists and Native American Representatives and Monitors from culturally affiliated Native American Tribes before any stages of project implementation and construction activities begin on the project site. The program will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and will outline what to do and whom to contact if any potential archaeological resources or artifacts are encountered. The program will also underscore the requirement for confidentiality and culturally appropriate treatment of any find of significance to Native Americans and behaviors, consistent with Native American Tribe values.

Timing: Prior to the issuance of building/grading permits and during construction

Reporting: Agency approval of permits or plans

Responsible Agency: Planning Department

Mitigation Measure 5B: Halt work and contact the appropriate agencies if human remains or cultural materials are discovered during project construction. All equipment operators and employees involved in any form of ground disturbance at any phase of project improvements shall be advised of the remote possibility of encountering subsurface cultural resources. If such resources are encountered or suspected, work shall be halted immediately and the Nevada County Planning Department, United Auburn Indian Community of the Auburn Rancheria, and any other interested and affected tribe shall be contacted. A professional archaeologist shall be retained by the developer and consulted to access any discoveries and develop appropriate management recommendations for archaeological resource treatment. If bones are encountered and appear to be human, California Law requires that the Nevada County Coroner and the Native American Heritage Commission be contacted and, if Native American resources are involved, Native American organizations and individuals recognized by the County shall be notified and consulted about any plans for treatment. A note to this effect shall be included on the grading and construction plans for each phase of this project.

Timing: *Prior to the issuance of building/grading permits and during construction*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

Mitigation Measure 5C: Lakebed Pedestrian Survey. Upon completion of the proposed lake drawdown, those portions of the lakebed recently exposed due to drawdown shall be subjected to an intensive pedestrian survey conducted by a qualified professional archaeologist. The investigation would comply with contemporary professional standards, and would involve a review of this report's findings, implementation of an intensive pedestrian survey involving transects spaced at intervals no greater than 10-meters in width, recordation of any identified cultural resources on DPR 523 forms, and preparation of a professional report including the findings of the investigation and any recommendations considered appropriate based on the findings. This report shall be submitted to the Planning Department prior to issuance of building/grading permits.

Timing: *Prior to the issuance of building/grading permits*

Reporting: *Agency approval of permits or plans*

Responsible Agency: *Planning Department*

6. Energy

Existing Setting: On February 12, 2019, the Nevada County Board of Supervisors approved the Energy Action Plan (EAP) as the County's unincorporated area's roadmap for expanding energy-efficiency, water-efficiency, and renewable-energy, and the cost-savings that accompany these efforts. The EAP is focused on operations of structures, infrastructure that generates energy, and efficient use of water.

The California Building Code (CBC) regulates the use, properties, performance, and types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The CBC includes mandatory green building standards for residential and nonresidential structures, the most recent version of which is referred to as the 2022 Building Energy Efficiency Standards (also referred to as CALGreen). These standards focus on four key areas: smart residential photovoltaic systems, updated thermal envelope standards

(preventing heat transfer from the interior to the exterior and vice versa), residential and nonresidential ventilation requirements, and non-residential lighting requirements.

In 2012, the California Air Resources Board (CARB) adopted the Advanced Clean Cars program in coordination with the Environmental Protection Agency (EPA) and National Highway Traffic Safety Administration. The program created a set of requirements for vehicle model years 2015 through 2025 that controls smog causing pollutants and GHG emissions. The goals of the program are to promote development of higher energy efficiency passenger cars and other vehicles and create financial savings for consumers through lowered fuel consumption.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during construction or operation?			✓		A
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			✓		A, 10

Impact Discussion:

6a,b Construction techniques and equipment used to construct the project will be consistent with local and state regulations. Typical construction activities require the use of energy (e.g., electricity and fuel) for various purposes such as the operation of construction equipment and tools, as well as grading and construction travel. The size and scope of the project is not likely to require extraordinary, or non-typical construction equipment, or techniques resulting in a wasteful, or inefficient construction operation. No structures are proposed and there is no operation phase of this project. The local Energy Action Plan does not address energy use during the construction phase, so there is no conflict with the local plan. There is a **less than significant impact** related to excessive energy consumption or conflicts with renewable energy or energy efficiency plans.

Mitigation: None required.

7. Geology and Soils

Existing Setting: The project area slopes upward from the lakebed of Lake Wildwood, into the hilly areas of the dredge disposal sites. The elevation of the lakebed is approximately 1,200 feet. At the disposal sites, the elevation ranges from about 1,570 feet at the previously graded areas of the parcel to 1,460 feet near Wildwood Creek.

The Natural Resources Conservation Service (NRCS) has mapped three soil types on the disposal sites. Trabuco-rock outcrop complex with 30-50% slopes constitutes the majority of the land, with small areas of Trabuco-rock outcrop complex with 15-30% slopes and Trabuco loam with 5-15% slopes. The Trabuco series consists of well-drained soils underlain by weathered granodiorite. These soils occur in the middle part of the foothills and are gently rolling to steep. Trabuco-rock outcrop complex has a medium to rapid runoff and a moderate to high hazard of erosion. Trabuco

loam has medium runoff and moderate to high hazard of erosion depending on the slope. The Trabuco series has a moderate shrink-swell potential with about 35% mixed clays composition.

The Alquist-Priolo Earthquake Fault Zoning Act was adopted in 1972 to prevent the construction of buildings in areas where active faults have surface expression. Ground or fault rupture is generally defined as the displacement that occurs along the surface of a fault during an earthquake. The project site is not within an Alquist-Priolo Earthquake Fault Zone, and there are no known faults that cross through the project site. Generally, western Nevada County is located in the low intensity zone for earthquake severity. The area has not been evaluated by the California Geologic Survey for liquefaction hazards or seismic landslide hazards.

There are no known unique paleontological resources or sites or unique geologic features in the project area.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Directly or indirectly cause potential substantial adverse effects, including risk of loss, injury or death involving: <ul style="list-style-type: none"> i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ii. Strong seismic ground shaking? iii. Seismic-related ground failure including liquefaction? iv. Landslides? 				✓	12
b. Result in substantial soil erosion or the loss of topsoil?		✓			11
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?			✓		11
d. Be located on expansive soil creating substantial direct or indirect risks to life or property?			✓		11
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				✓	11
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			✓		11

Impact Discussion:

7a The project site is not within an Alquist-Priolo Earthquake Fault Zone, and there are no known faults that cross through the project site. Generally, western Nevada County is located in the low intensity zone for earthquake severity. The project does not propose any deep excavation or construction work, focused instead on lake dredging of loose soil and debris, and deposition of the dredge spoils at a nearby site above grade. Therefore, there is **no impact** for impacts to rupture of known earthquake faults, seismic ground shaking, seismic-related ground failure and landslides.

7b While there are not typically exposed soils at Lake Wildwood, the draining in preparation of dredging operation will expose soils. These soils are unlikely to be subject to erosion as they will be saturated and only exposed for about two weeks like the dredging takes place. **Mitigation Measure 4A** restricts vegetation removal at the lakebed site which will help keep topsoil in place. **Mitigation Measure 4E** details water quality best management practices, including using only stabilized access points for vehicles which will avoid disruption and erosion of soils. Finally, **Mitigation Measure 10D** includes best management practices for erosion control including not working in wet weather and using straw wattles and/or tackifiers to prevent erosion.

The existing soils at the dredge disposal sites have a moderate to high hazard of erosion, though they have been covered by dredge spoils from past operations. These previous operations were conducted with grading permits and followed state and local erosion control guidelines. Grading permits will be required for deposition of soils here, including standard erosion control measures. No top soil will be excavated. **Mitigation Measure 3C** requires dust control measures. Therefore, the impacts to soil erosion are **less than significant with mitigation**.

7c,d The soils at the dredge disposal site have been graded without incident for many years. A grading permit is required, which includes measures such as compaction, maximum grades, and erosion control to ensure that the soils will remain stable on the site. The lakebed has been dredged many times with no incidence related to unstable soils. No excavation or grading will be done underneath or directly adjacent to structures. No structures will be built as part of this project that could result in landslides, spreading, subsidence, liquefaction, or collapse. Similarly, there is no evidence or history of expansive soils on either site and no risk to structures, life, or property. Therefore, impacts related to expansive or unstable soils are **less than significant with mitigation**.

7e The project area is served by municipal sewer and does not propose any septic tanks or alternative wastewater disposal systems. Therefore, there is **no impact** related to soils needed to serve septic systems.

7f The proposed pipeline and hydrant system is located within a disturbed corridor that is developed with roadways and utilized for vehicular traffic. There is no evidence of paleontological resources in the project area. However, **Mitigation Measures 5A and 5B**, described in Section 5 above, would require construction to be halted in the unlikely event that there is a discovery of cultural resources, including historic, prehistoric, tribal, and paleontological resources so that any paleontological resources can be evaluated and protected. There are no unique geological features in the project area. Therefore, impacts to paleontological resources and unique geological features is **less than significant with mitigation**.

Mitigation Measures: To mitigate potentially adverse soils impacts from project grading and construction, both on-and off-site, **Mitigation Measures 3C, 4A, 4E, 5A, 5B, 10D** shall be required.

8. Greenhouse Gas Emissions

Existing Setting: Global climate change refers to changes in average climatic conditions on the earth as a whole, including temperature, wind patterns, precipitation and storms. Global warming, a related concept, is the observed increase in the average temperature of the earth's surface and atmosphere. One identified cause of global warming is an increase of greenhouse gases (GHGs) in the atmosphere. Greenhouse gases (GHGs) are those gases that trap heat in the atmosphere. GHGs are emitted by natural and industrial processes, and the accumulation of GHGs in the atmosphere regulates the earth's temperature. Events and activities, such as the industrial revolution and the increased combustion of fossil fuels (e.g. gasoline, diesel, coal, etc.), are believed to have contributed to the increase in atmospheric levels of GHGs. GHGs that are regulated by the State and/or EPA are carbon dioxide (CO₂), methane (CH₄), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆) and nitrous oxide (NO₂). Emission inventories typically focus on GHG emissions due to human activities only, and compile data to estimate emissions from industrial, commercial, transportation, domestic, forestry, and agriculture activities. CO₂ emissions are largely from fossil fuel combustion and electricity generation. Agriculture is a major source of both methane and NO₂, with additional methane coming primarily from landfills. Most HFC emissions come from refrigerants, solvents, propellant agents, and industrial processes, and persist in the atmosphere for longer periods of time and have greater effects at lower concentrations compared to CO₂. Global warming adversely impacts air quality, water supply, ecosystem balance, sea level rise (flooding), fire hazards, and causes an increase in health-related problems.

To reduce emissions of greenhouse gases, the California Legislature enacted AB 32 (Núñez and Pavley), which is referred to as the California Global Warming Solutions Act of 2006 (September 27, 2006). AB 32 provided initial direction on creating a comprehensive, multiyear program to limit California's GHG emissions at 1990 levels by 2020, and initiate the transformations required to achieve the state's long-range climate objectives. In April 2015, the California Air Resources Board issued Executive Order B-30-15 to set an interim target goal of reducing GHG emissions to 40 percent below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80 percent below 1990 levels by 2050 as set forth in EO S-3-05. SB 32, enacted in 2016, codified the 2030 the emissions reduction goal of CARB Executive Order B-30-15.

In addition, the Governor signed Senate Bill 97 in 2007 directing the California Office of Planning and Research to develop guidelines for the analysis and mitigation of the effects of greenhouse gas emissions and mandating that GHG impacts be evaluated in CEQA documents. CEQA Guidelines Amendments for GHG Emissions were adopted by OPR on December 30, 2009. The Northern Sierra Air Quality Management District (NSAQMD) has prepared a guidance document, Guidelines for Assessing Air Quality Impacts of Land Use Projects, which includes mitigations for general air quality impacts that can be used to mitigate GHG emissions when necessary. Continuing to reduce greenhouse gas emissions is critical for the protection of all areas of the state, but especially for the state's most disadvantaged communities, as those communities are

affected first, and, most frequently, by the adverse impacts of climate change, including an increased frequency of extreme weather events, such as drought, heat, and flooding.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?		✓			A, 19
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?		✓			A, 19

Impact Discussion:

8a,b The project is not expected to generate greenhouse gases that would result in significant environmental impacts or that would be in conflict with plans for greenhouse gas reductions. Due to the project being an intermittent project to dredge a lake and dispose of dredge materials without any ongoing operations, high levels of greenhouse gas emissions are not anticipated.

California is divided geographically into air basins for the purpose of managing the air resources of the State on a regional basis. An air basin generally has similar meteorological and geographic conditions throughout. Nevada County and Placer County are both within the Mountain Counties Air Basin. Nevada County is within the jurisdiction of the Northern Sierra Air Quality Management District, but the NSAQMD has not adopted thresholds of significance for greenhouse gases. However, Placer County Air Pollution Control District has adopted thresholds of significance for greenhouse gases. Due to greenhouse gas emissions being not only a regional but also a global concern, and the similarities between the neighboring air districts, it was determined that the Placer APCD thresholds are relevant standard for the determination of significance.

The thresholds adopted by Placer County APCD include a bright-line threshold of 10,000 metric tons of Carbon dioxide equivalent per year and a De Minimis level of 1,100 metric tons of carbon dioxide equivalent per year (MT CO₂e/yr). A bright-line threshold is a numerical value used to determine the significance of a project’s annual GHG emissions. GHG emissions from projects that exceed 10,000 MT CO₂e/yr would be deemed to have a cumulatively considerable contribution to global climate change. The De Minimis Level for the operational phases of 1,100 MT CO₂e/yr represents an emissions level which can be considered as less than cumulatively considerable and be excluded from the further GHG impact analysis.

The California Emissions Estimator Model (CalEEMod) was used to model the greenhouse gas emissions from the construction and operation of the project. An estimated 7,010 metric tons of carbon dioxide equivalent would be emitted a year during the construction phase when Mitigation Measure 3A is in place. **Mitigation Measure 3A** reduces emissions during construction by requiring Tier 4 engine vehicles which pollute less and limit idling time. There is no operational phase. Due to the greenhouse gas emissions from the project

being below the greenhouse gas significance threshold, the overall GHG impact is expected to remain at a level that is **less than significant with mitigation**.

Mitigation Measures: In order to reduce the greenhouse gas emissions impacts from this project, **Mitigation Measure 3A** is required.

9. Hazards and Hazardous Materials

Existing Setting: Health and safety issues apply to construction works and members of the public who would be exposed to hazardous materials and physical conditions associated with the presence of construction equipment and excavation in area of sensitive land uses. There are a variety of state and federal regulations that apply to construction projects for the protection of health and safety. No existing or proposed schools are located within one-quarter mile of the project area. The project area is not within an airport land use plan or within two miles of a public airport or public use airport.

The Hazardous Waste and Substances Site List (Cortese List) is a planning database used by the State and local agencies to comply with the CEQA requirements in providing information about the location of hazardous materials release site. Government Code Section requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. The Department of Toxic Substances Control (DTSC) is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List. DTSC’s Brownfields and Environmental Restoration Program (Cleanup Program) EnviroStor database provides DTSC’s component of the Cortese List by identifying State Response and/or Federal Superfund sites and Backlog sites listed under Health and Safety Code Section 25356, In addition, DTSC’s Cortese List includes Certified with Operation and Maintenance sites. There are three sites on the Cortese List in Nevada County: Empire Mine State Park, the Lava Cap Mine, and Davis Mill/Hoge Mine. None of these are within the vicinity of the proposed project.

The project is not within or adjacent to any hazardous materials sites compiled, nor is it located on an abandoned solid waste disposal site known to the County.

The project area is located within the boundaries of the Penn Valley Fire Protection District and is within areas designated as Moderate and High.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		✓			E, 5
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		✓			A, 5

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				✓	A
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?				✓	A, 23
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				✓	A
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		✓			A, 14
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				✓	A, F

Impact Discussion:

9a,b The sediment removed from Lake Wildwood as part of the dredging project may contain levels of metals and/or hexavalent chromium that may exceed California Department of Toxic Substances Control (DTSC) and EPA Regional screening levels. **Mitigation Measure 4B** requires testing of all sediment for metals and hexavalent chromium to ensure the materials are disposed of properly. Any material deemed hazardous waste will go to an appropriate disposal facility and not be deposited at the dredge disposal sites where they could be a hazard to the environment.

Small quantities of hazardous materials would be used and handled during construction of the project. The hazardous materials anticipated for use are small volumes of petroleum hydrocarbons and their derivatives (e.g. gasoline, oils, lubricants, and solvents) used to operate the construction equipment. These relatively small quantities would be below reporting requirements for hazardous materials business plans and would not pose substantial public health and safety hazardous through release of emissions or risk of upset. Safety risks to construction workers for the proposed project would be reduced by compliance with Occupational Safety and Health Administration standards. In addition, **Mitigation Measure 4E** requires careful management of all potential pollutants from this source including spill prevention measures (i.e. use of drip pans), daily inspections for leaks, and immediate cleaning should a spill occur. These risks are only pertinent for the 2-3 weeks of the dredging operations every 2-4 years. Therefore, the impacts related to hazardous materials is **less than significant with mitigation**.

- 9c There are no existing or proposed schools within one-quarter mile of the proposed project. Therefore, there would be **no impact** related to hazardous emissions or substances near a school.
- 9d No portion of the project area is included on the Cortese List of hazardous materials sites. Therefore, the project would not create significant hazard to the public or the environment, and **no impact** would occur.
- 9e The proposed project is not located within an airport land use plan or within two miles of an airport. Therefore, there would be **no impact**.
- 9f Construction vehicles will be traveling along routes identified in the Lake Wildwood Emergency Response Plan for a period of 2-3 weeks of the dredging operations every 2-4 years. Construction vehicles would be traveling at approximately 15 miles per hour per Mitigation Measure 3A on private Lake Wildwood roads where the speed limits are 25 miles per hour. This speed differential could result in traffic hazards due to incompatible traffic speeds. However, with the implementation of a construction traffic management plan as outlined in **Mitigation Measure 17A**, this impact would not be adverse and would bring any interference with an adopted emergency response plan or emergency evacuation plan to **less than significant with mitigation**.
- 9g The dredging and disposal of sediment will not produce any structures or additional populations in the area, which has moderate and high wildfire risk. Tree removal is proposed at the dredge disposal site, slightly reducing the risk of wildfires in that area. The Penn Valley Fire Protection District did not have any comments on this project. Therefore, there is **no impact** related to exposing people or structures to wildland fires.

Mitigation Measures: Potential impacts related to hazardous materials will be mitigated by **Mitigation Measure 4B and 4E** and **Mitigation Measure 17A** will mitigate any impacts related to the implementation of emergency response plans.

10. Hydrology and Water Quality

Existing Setting: The project area is located within and adjacent to the Lake Wildwood Community Region, which is a residential subdivision centered around Lake Wildwood. Lake Wildwood is a man-made perennial watercourse approximately 300 acres in size and is part of the Deer Creek and Wildwood Creek watersheds. The Lake is surrounded by single-family residences and five community parks within the Lake Wildwood subdivision. The lakebed area is gently sloping from 1% to 10%, and surrounding residential parcels slope from 3% to 20%. The high point of the Lake Wildwood subdivision is at an elevation of approximately 1,500 feet, with the low point being below the spillway in Deer Creek at an elevation of approximately 1,140 feet.

The lake is designated as a Special Flood Hazard Area (Zone A) on the existing FEMA FIRMette Map (06057C0625E). The FEMA FIRMette Map (Figure 11) shows the site and the designated Zone A as a Special Flood Hazard Area without a Base Flood Elevation (BFE) for Lake Wildwood. FEMA defines Zone A as “areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas; no depths or base flood elevations are shown within these zones.” However, it is noted in all the final

Subdivision Maps for Lake Wildwood that the “Spillway and maximum normal lake elevation equals 1,200.0 feet, mean sea level” and this elevation has historically been accepted as the normal elevation for the lake. In the winter months during larger storm events and flows, the lake has risen to as high as 6.5 feet above the spillway to an elevation of 1,206.5 feet. Based on historic investigation and topography mapping, Nelson Engineering, a licensed civil engineer, has established this elevation (1,206.5 feet) as the maximum flood elevation for Lake Wildwood. The project is not in a tsunami or seiche zones.

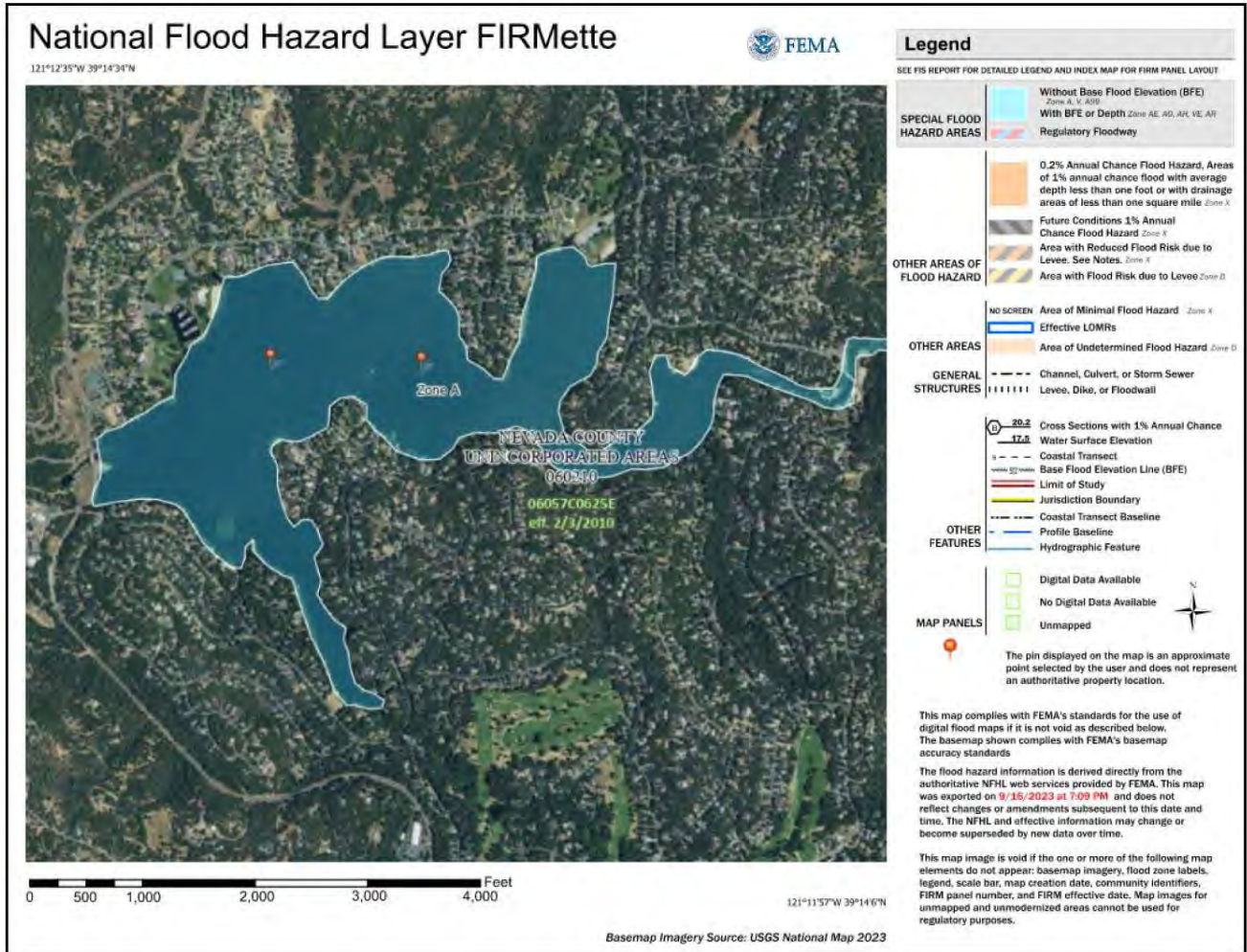


Figure 11 -- FIRMette Map by FEMA

The California State Water Resources Control Board (State Water Board) regulates stormwater discharges from construction sites because of the potential to mobilize pollutants and discharge into waterbodies or watersheds. By regulating these discharges, the State Water Board is preserving, enhancing, and restoring California's waterbodies and its resources. Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. Dischargers whose projects disturb one (1) or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities.

Sustainable management of groundwater basins is overseen by the Department of Water Resources (DWR) and State Water Resources Control Board (SWRCB) via the Sustainable Groundwater Management Act (SGMA). This project is not located within any groundwater basins or priority basins identified by the DWR Bulletin 118, or the SGMA Basin Prioritization Dashboard. The nearest DWR Bulletin 118 basins are the North and South Yuba Subbasins of the Sacramento Valley Basin (5-21.60 and 5-021.61, respectively). No Groundwater Sustainability Agency, no Groundwater Sustainability Plan, and no sustainability criteria or goals have been established for the underlying aquifer of this project.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?		✓			13, 5
b. Substantially decrease groundwater supplies or interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				✓	A
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i) Result in substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site; iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv) impede or redirect flood flows?		✓			13
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?		✓			13
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?		✓			13
f. Place housing within a 100-year flood hazard area as mapped on a federal Flood hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				✓	13

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
g. Place within a 100-year flood hazard area structures that would impede or redirect flood flows?				✓	13

Impact Discussion:

10a,e The project proposes to temporarily drain and dredge Lake Wildwood periodically over the course of 15 years and deposit dredge spoils on nearby rural parcels to maintain the lake as a recreational resource. The project will receive a Regional Water Quality Control Board 401 Permit to ensure compliance with water quality standards. **Mitigation Measure 10E** requires a copy of this permit to be submitted to the Planning Department prior to issuance of grading permits. Therefore, the impacts to water quality standards or control plans will be *less than significant with mitigation*.

10b,e The project proposes interference with surface water by draining Lake Wildwood, but does not propose any scope of work that would alter the groundwater resources such as drilling, excavation, or wells. This area is not part of a sustainable groundwater management plan. Therefore there is *no impact* to groundwater resources.

10c Though no new impervious surfaces are included in this project, the project will temporarily alter the existing drainage pattern of the site by altering the way that water flows through Lake Wildwood during the draining and dredging of the lake. **Mitigation Measure 10B** details guidelines for this scope of work including the cutting of a shallow canal through the lakebed to ensure that the waterflow from Deer Creek can continue without picking up excess sediment and depositing it downstream. **Mitigation Measure 10D** ensures erosion best management practices and covering of exposed soil that may occur during the dredging and/or grading so that no excess erosion takes place. No increase in surface runoff is anticipated at either the lake or the disposal sites. **Mitigation Measure 10B** also includes direction for all vehicles and construction equipment to be inspected daily for leaks that could cause polluted runoff, and be repaired or discontinued if leaks are found, which protects from polluted runoff. **Mitigation Measure 10C** prohibits cut and fill in the floodplain so that flood flows will not be impeded or redirected. The dredging itself helps maintain the capacity of Lake Wildwood to hold water, reducing the risk of damage from flooding. Preserving the existing vegetation, as required by **Mitigation Measure 10A**, will help prevent erosion from loose soils. Water flows from Lake Wildwood into Deer Creek will be increased during the drawdown period, which could increase erosion and sediment in the creek bed. To ensure this impact is less than significant, **Mitigation Measure 4F** requires a regulated drawdown approach that limits the flow of water. **Mitigation Measure 4C** also requires upland disposal of dredge materials to ensure they do not flow off and impact watercourses. Therefore, the impacts related to altering the existing drainage pattern of the site or area are *less than significant with mitigation*.

10d The project is not located in a tsunami or seiche zone, but the lakebed is located within a special flood hazard areas with a 1% annual chance of flooding. Some additional pollutants will be on site during the dredging efforts due to the presence of heavy equipment and vehicles. However, the equipment will be stored outside of the floodplain

when not in use. Additionally, **Mitigation Measure 10D** prohibits trenching or grading if there is a 50% change or greater of rain within 48 hours, so that no equipment would be present in the floodplain if flood-causing rain were in the forecast. Therefore, the risk of release of pollutants due to project inundation is **less than significant with mitigation**.

- 10f No housing is proposed as part of this project. Therefore, there will be **no impacts** related to placing housing within a flood zone.
- 10g No structures will be created as part of this project, so there are **no impacts** related to structures impeding or redirecting flood flows.

Mitigation Measures: In addition to **Mitigation Measures 4C and 4F**, the following hydrology and water quality mitigation measures or best management practices (BMPs) are also identified:

Mitigation Measure 10A: No clearing and grubbing. The following notes shall appear on all plans and drawings: No vegetation shall be removed or otherwise affected by the sediment removal. All equipment and machinery shall enter/exit at pre-established routes preventing any adverse effects to the lake bank or associated vegetation. When possible, all construction vehicles, equipment and machinery shall enter and exit along one route.

Timing: *Prior to building/grading permit issuance*

Reporting: *Approval of permits*

Responsible Agency: *Planning Department and Building Department*

Mitigation Measure 10B: Grading and sediment removal guidelines. The following notes shall appear on all plans and drawings: Grading and sediment removal shall adhere to the following guidelines:

1. Heavy equipment and vehicular movement shall be limited to the Project Area, existing access roads and predetermined staging areas.
2. All equipment and machinery shall enter/exit at pre-established points preventing any adverse effects to the lake bank or associated vegetation. When possible, all construction vehicles, equipment and machinery shall enter and exit along one route.
3. Access points shall be on stabilized ground with a stabilized construction entrance/exit per Best Management Practice (BMP) standard drawing TC-1 and TC-3 to minimize the tracking of sediment onto roads. If sediment is tracked onto a roadway, the sediment shall be removed by shoveling and then transporting it to the sediment disposal area.
4. To prevent sediment material from entering any watercourse, a shallow canal shall be cut into the lakebed to divert water from the Deer Creek inlet away from any of the grading and/or excavation areas.
5. Spill prevention and control measures shall be implemented per BMP standard drawing WM-4 when equipment or machinery are staged below the normal water elevation (1,200.0 feet).
6. All pollutants that occur during the grading operation shall be handled and disposed of in a manner that does not cause contamination of surface water (or ground runoff).
7. Vehicles and construction equipment shall be inspected daily for fuel and/or hydraulic fluid leaks; if a leak is identified, use of the vehicle/equipment shall be discontinued until repairs are completed and the leak is stopped.

8. Maintenance and repair of equipment or machinery—or other activities that may result in discharge or spillage of pollutants to the ground or surface water shall be conducted in upland areas using spill prevention measures as noted above.
9. Contaminated surfaces shall be cleaned immediately following any discharge or spill incident.

Timing: Prior to building/grading permit issuance

Reporting: Approval of permits

Responsible Agency: Planning Department and Building Department

Mitigation Measure 10C: Cut and Fill Slope Grading. The following notes shall appear on all plans and drawings: No cut or fill slope grading shall take place proposed within the floodplain or 100-foot setback area to the floodplain.

Timing: Prior to building/grading permit issuance

Reporting: Approval of permits

Responsible Agency: Planning Department and Building Department

Mitigation Measure 10D: Erosion Control during Construction. The following notes shall appear on all plans and drawings:

1. No vegetation removal is anticipated and all existing vegetation shall be preserved to the extent practicable.
2. Best Management Practices (BMPs) shall be implemented for erosion and sediment control. Typical BMPs, such as seeding, mulch, straw with tackifiers, fiber rolls silt fences and sediment traps, should be used during and after construction as needed to reduce erosion and retain sediment within the construction area. Fiber rolls or silt fencing shall be added below the leach line trenches for the sewage disposal system.
3. The contractor shall provide labor, materials, and equipment to maintain and protect any exposed soil from wind and water erosion. The contractor shall provide siltation control and management during any construction activities. All existing surface drainage facilities shall be kept free of soil and debris during construction. No trenching or grading shall take place if there is a 50% chance or greater of rain within 48 hours.

Timing: Prior to building/grading permit issuance

Reporting: Approval of permits

Responsible Agency: Planning Department and Building Department

Mitigation Measure 10E: Regional Water Quality Control Board (RWQCB) Permit. Prior to issuance of any grading permits, a copy of an approved permit as required by section 401 of the Clean Water Act and issued by the RWQCB will be submitted to the Planning Department.

Timing: Prior to grading permit issuance

Reporting: Permit issuance

Responsible Agency: Planning Department

11. Land Use and Planning

Existing Setting: The project is within and adjacent to the Lake Wildwood Community Region in western Nevada County. Lake Wildwood is the center of a large residential subdivision. The gated community includes 2,845 parcels over 2,300 acres with average lot size of 0.3 acres. Most

parcels have been developed with single family residences and accessory structures. The subdivision also includes various recreational facilities including the lake and marinas, racquet sports, parks, and a golf course. There is a commercial development with offices and retail on the north end of the subdivision. The lake is used for recreational purposes and is surrounded on all sides by private property within the gated Lake Wildwood community. Lake Wildwood is a Planned Residential Community (PRC) which, according to the Nevada County General Plan Land Use Element, is intended to provide for residential development in accordance with the approved Master Plan and also for community support facilities, including recreation, which are operated by a resident’s association or similar mechanism. Within the Community Regions, balanced growth is encouraged to provide managed housing, community, located for convenience, efficiency and affordability. The Community Regions are established as the areas of the County within which growth should be directed to provide compact, areas of development where such development can be served most efficiently and effectively with necessary urban services and facilities.

The disposal sites are in a rural area adjacent to the Lake Wildwood Community Region, just east of the subdivision limits. Approximately 24 Lake Wildwood residential parcels are located to the west of the 68-acre property. To the north, south, and east are six AG-10-zoned properties, some of which are developed with agricultural and residential uses. The parcel sizes range from under an acre to over 45 acres. Within the Rural Regions, growth is limited to those types and densities of development which are consistent with the open, rural lifestyle, pastoral character and natural setting and surrounding land use patterns which exists in these areas.

Section L-II 4.3.17 of the Nevada County Land Use and Development Code requires a 100-foot non-disturbance buffer to protect perennial watercourses and riparian areas. Section L-II 4.3.10 protects floodplains and areas within 100 feet of floodplains, and Section L-II 4.3.15 protects landmark tree groves. All of these resources are present within the project area.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Physically divide an established community?				✓	A
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?		✓			A,5,6,13

Impact Discussion:

11a The proposed project is within and adjacent to the Lake Wildwood residential subdivision. No new physical features are proposed beyond the additional placement of fill on previously graded rural sites. All vehicles will use existing roadways and no traffic closures are expected that would divide the community temporarily during construction. Therefore, the proposed project would have **no impacts** related to division of an existing community.

11b Lakebed

The Nevada County Land Use and Development Code protects perennial and intermittent/seasonal watercourses with non-disturbance buffers of 100 and 50 feet, respectively. No development is allowed within these buffers unless a Management Plan

is prepared by a qualified biologist or botanist that avoids or minimizes impacts to the resource. A Watercourse Management Plan was prepared for this project, and includes **Mitigation Measures 4A-I** which require avoidance of removing vegetation, testing of dredge spoils, proper disposal in upland locations, limitations on equipment and vehicular movement, stabilization of sediments, water quality monitoring, correct handling of possible pollutants and contaminants. Additionally, specific measures to minimize the adverse effects on special-status salmonids and western pond turtles, along with training of all workers on site, will ensure that the impact to watercourses and their habitats is **less than significant with mitigation**.

Floodplains and their 100-foot non-disturbance buffers are also protected by the Nevada County Land Use and Development Code. The project proposes dredging within the floodplain and staging of materials and related operations within the 100-foot non-disturbance buffer. Accordingly, a Use Permit for the work with the floodplain and a Management Plan for work within the non-disturbance buffer are required permits for this project. **Mitigation Measures 10A-E** require various anti-erosion controls and a permit from the Regional Water Quality Control Board to ensure the integrity of the floodplain making this impact **less than significant with mitigation**.

Disposal Sites

Dredge disposal will impact landmark oak groves, which are protected under the Nevada County Land Use and Development Code. Landmark groves are defined as hardwood tree groves with 33+% canopy closure, and are preserved to protect valuable wildlife habitat. Approximately 1.5 acres of landmark groves will be removed to make space for placement of dredge spoils. A Management Plan was prepared that includes mitigation measures to compensate for the impact to landmark oak groves by paying a fee to the Bear Yuba Land Trust's Oak Woodland Conservation Fund Plan as described in **Mitigation Measure 4J**. **Mitigation Measure 4K** also requires fencing to establish an environmentally sensitive area around the remaining oaks to protect them from further potential impacts by equipment or grading activities. Special-status species and their habitats are also protected under this code, and a Management Plan was prepared to mitigate impacts to the Sierra foothills brodiaea. The replanting of these species to compensate for the anticipated take of three plants, as described in **Mitigation Measure 4L** will bring the impacts to **less than significant with mitigation**. Finally, to ensure compliance with these mitigation measures, **Mitigation Measure 4O** requires that the applicant distribute copies to all contractors prior to grading and construction.

Mitigation Measures: To ensure compliance with applicable land use plans, policies, and regulations, the following mitigation measure **Mitigation Measures 4A-I and 10A-E** shall be included.

12. Mineral Resources

Existing Setting: Mineral resources, particularly gold, have played a major role in the history of Nevada County. Since 1849, when gold was first discovered in the area, to the years preceding World War II, most of the County's population was economically supported, directly or indirectly, by the local gold mining industry. Other metals produced in the County since 1880 include silver, copper, lead, zinc, chromite, and small amounts of tungsten and manganese. Industrial minerals

include barite, quartz for silicon production, and small amounts of limestone, asbestos, clay, and mineral paint. Also, significant deposits of sand, gravel, and rock types suitable for construction aggregate are exposed throughout the County. (Mineral Land Classification of Nevada County, State Division of Mines and Geology, 1990).

In order to promote the conservation of the state's mineral resources, and ensure adequate reclamation of mined lands, the Surface Mining and Reclamation Act of 1975 (SMARA) was enacted. SMARA requires that the State Geologist classify land in California for its mineral resource potential. Local governments are required to incorporate the mineral and classification reports and maps into their general plans and consider the information when making land use decisions.

Areas subject to mineral land classification studies are divided into various Mineral Resource Zone (MRZ) categories that reflect varying degrees of mineral potential. Mineral deposits of all types which are designated MRZ-2a or MRZ-2b, are used for areas underlain by mineral deposits where geologic data indicate that significant measured or indicated (MRZ-2a), or inferred (MRZ-2b) resources are present.

There are no identified mineral resources in the project vicinity. The closest known mineral resources are located approximately 1.5 miles east of the project area.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				✓	A,9
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				✓	A,9

Impact Discussion:

12a,b The project proposes dredging of Lake Wildwood and disposal of dredge spoils on nearby rural sites. None of the project parcels contain known or designated mineral resources. Therefore there is **no impact** related to the loss of known mineral resources.

Mitigation Measures: None required.

13. Noise

Existing Setting: Proposed project work would occur within the lakebed of Lake Wildwood, on private access roads from the lake to the disposal site, and at the disposal site itself off Bosa Drive. Lake Wildwood is surrounded by residential and recreational uses including private parks, and the lake itself is a primary recreational resource for the residents of the community of Lake Wildwood. Recreation on the lake includes both non-motorized and motorized activity, such as swimming, kayaking, paddleboarding, jet skiing, waterskiing, and boating. The existing ambient

noise setting at the lake is dominated by boating engine noise and some traffic noise from local residential roads within Lake Wildwood. There is very little existing ambient noise at the disposal site due to the site’s location within a rural agricultural setting.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess standards established in the local General Plan or noise ordinance, or applicable standards of other agencies?		✓			A
b. Generation of excessive ground borne vibration or ground borne noise levels?		✓			A
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			✓		A

Impact Discussion:

13a,b The proposed project consists of short-term, temporary construction from approximately late September through October, every three to four years for a period of two to three weeks, after the lake has been dewatered for several weeks. Lake dewatering is not anticipated to result in any noise impacts as the water would be released slowly downstream into Deer Creek.

Active construction within the lakebed would consist of two swamp cats, an excavator, and up to seven 6- to 10-wheel dump trucks excavating, loading, and hauling sediment material. Simultaneously, the dump trucks would haul the material to the disposal site on Bosa Drive via Minnow Way. Minnow Way is within the Lake Wildwood community and is a private road used only by Lake Wildwood residents. Bosa Drive is also a private road and serves two properties developed with residential uses past the project site. Bosa Drive is accessed directly from Minnow Way, so construction vehicles would not traverse over public roads.

Although surrounding residential uses at the lake and disposal site could be sensitive to intermittent and temporary noise generated during construction, construction noises and construction-related vibration are not operational, ongoing, or permanent land uses. Because they are short term in nature, they are exempt from the County noise standards which do not apply to temporary construction. Nonetheless, the temporary exposure of nearby sensitive uses to noise in excess of County thresholds could be an impact under CEQA. With implementation of **Mitigation Measure 1A**, which limits construction hours to 7AM to 5PM, Monday through Friday, temporary construction noise and vibration impacts from the project would be less than significant with mitigation.

13c The project site is not located within an airport land use plan and is approximately eight miles from the nearest public airport, the Nevada County Airport, and ten miles from Beale Air Force Base in Yuba County. There is a private airstrip called the Limberlost Ranch Airport less than 1 mile southwest of the lakebed. The proposed project does not have an operational component and would therefore not generate any sensitive land uses that would be sensitive to airport noise. Given the distance to the nearest public airports and limited use of the nearby private airstrip, there would **less than significant impacts** to people related to airport noise.

Mitigation Measures: To mitigate potential construction related noises, **Mitigation Measure 1A** shall be required.

14. Population and Housing

Existing Setting: Lake Wildwood is the center of a large residential subdivision. The gated community includes 2,845 parcels over 2,300 acres with average lot size of 0.3 acres. Most parcels have been developed with single family residences and accessory structures. The subdivision also includes various recreational facilities including the lake and marinas, racquet sports, parks, and a golf course. There is a commercial development with offices and retail on the north end of the subdivision.

The disposal sites are in a rural area adjacent to the Lake Wildwood Community Region, just east of the subdivision limits. The surrounding parcels are developed with residential and agricultural uses. The parcel sizes range from under an acre to over 45 acres.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				✓	A
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				✓	A

Impact Discussion:

14a The purpose of the proposed project is to maintain an existing lake within a residential community. The dredging work has been on-going periodically since the 1970s. There will be no improvements (i.e. addition of facilities or infrastructure) and no structures are proposed. No changes to zoning or density are proposed. Therefore, there is **no impact** on induction of unplanned population growth.

14b The proposed project will use existing access roads and disposal sites for the dredging. No existing housing or people will be displaced due to this project’s scope as lake dredging

and spoils disposal. Therefore, the proposed project would have **no impact** related to the induction or displacement of housing and people.

Mitigation Measures: None required.

15. Public Services

Existing Setting: The following services are provided within the project corridor:

Fire: The Penn Valley Fire District provides fire protection services to the lakebed parcel, and the Rough and Ready Fire District serves the disposal sites.

Police: The Nevada County Sheriff Department provides law enforcement services.

Schools: The project site is within the Penn Valley Union Elementary School and Nevada Joint Union High School District 3.

Parks: The project is within the Western Gateway Park District.

Water: The Lake Wildwood subdivision is served by public water from Nevada Irrigation District. Water is provided by wells at the disposal sites.

Sewer: The Lake Wildwood subdivision is served by the Lake Wildwood Sanitation District. The disposal sites are served by private septic systems.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following the public services:					
i) Fire protection?				✓	A, F
ii) Police protection?				✓	A
iii) Schools?				✓	A
iv) Parks?				✓	A
v) Other public services or facilities?				✓	A

Impact Discussion:

15a The project proposes dredging of a perennial watercourse and transporting dredge spoils to nearby privately owned sites for disposal. No new provision or need for governmental facilities will be induced so there is **no impact** on public services.

Mitigation Measures: None required.

16. Recreation

Existing Setting: A portion of the project will occur within the lakebed of Lake Wildwood. Lake Wildwood is a major recreational amenity exclusive to the residents of the private, gated community of Lake Wildwood. The lake is used for non-motorized and motorized activities, including boating with sailboats, powerboats, kayaks, and canoes; water skiing and wakeboarding; and paddleboarding, fishing, and swimming. A number of parks and beaches surround the lake and provide lake access, recreational equipment storage, and recreational opportunities. The four beaches around the lake include picnic tables, barbecues, umbrellas, and large picnic pavilions. In addition, there are a number of recreational activities on the lake such as a 4th of July Water Ski Show, an annual Bass Tournament, and monthly Fishing Derbies.

The project is located within the County’s Western Gateway Recreation Benefit Zone. Within that zone, Lake Wildwood has a reduced neighborhood park fee component, reflecting a credit for community-provided private recreation facilities. The Nevada County General Plan recommends the level of service for recreation needs as three acres per each 1,000 persons, countywide.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			✓		A,15
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?			✓		A
c. Conflict with established recreation uses of the area, including biking, equestrian and/or hiking trails?			✓		A

Impact Discussion:

16a,b,c Every 3 to 4 years, the proposed project would be initiated in September after the height of the summer recreational season in Lake Wildwood. Following the four- to six-week drawdown period, the lake is dredged for an approximately two-week period. After sediment removal activities, the lake must then naturally refill to pre-drawdown levels from storm events and watershed runoff, which typically occurs by late November or early December, depending on rainfall. The lake would thus not be available for recreational use for a period of approximately 3 months every 3 to 4 years. However, the lake is owned and operated by LWA, which is a homeowners group of all the property owners who have access to the lake. The recreational impact of the project is therefore proposed by representatives of the people who would be impacted – the homeowners – so that they may continue to enjoy the recreational benefits of the lake. Without the proposed project, the recreational use of Lake Wildwood would ultimately deteriorate to the point that the lake could not functionally be used in a recreational manner as the sediment would

accumulate to a height that would leave the lake unfit for aquatic activities. The recreational impacts of the project are, therefore, on the whole, beneficial to the residents and recreationists of Lake Wildwood.

The sediment deposit component of the project would not increase the use of existing neighborhood or regional parks or other recreational facilities, trigger the need for new facilities, or conflict with established facilities. With no increase in population resulting from the proposed project, it would not result in adverse impacts to existing recreational facilities, nor trigger the need for new facilities. Due to the lack of any increase in population from the project and the lack of existing facilities onsite or in close proximity, the proposed project would have less than significant impact related to recreational facilities.

There will be no impact to local biking, equestrian, or hiking trails due to the project.

Mitigation Measures: None required.

17. Transportation

Existing Setting: The proposed project will occur within the 300-acre lakebed of Lake Wildwood and on a 68-acre property off Bosa Drive. Dredging locations within the lakebed are accessed only within the gated Lake Wildwood community via private internal roads. The sediment disposal area on Bosa Drive is immediately adjacent to Lake Wildwood to the east, and will be accessed via private roads through the Lake Wildwood community.

The Nevada County Regional Transportation Plan identifies the population center of Lake Wildwood as having a high relative transit need for disabled, senior, and low-income populations. The Nevada County Active Transportation Plan indicates planned future widening of bicycle routes along Pleasant Valley Road on the western side of Lake Wildwood. The Nevada County General Plan Policy RD-4.3.2 reads as follows:

Expansion of the County's bikeway network shall focus on corridors with high potential demand. These corridors include the Highway 49/20 corridor between Grass Valley and Nevada City (along Nevada City Highway, Old Tunnel Road, and Sutton Way), the La Barr Meadows Corridor between Alta Sierra and Grass Valley, the Penn Valley/Pleasant Valley Corridors between Lake Wildwood and Penn Valley, and the Combie Corridor bikeway.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle or pedestrian facilities?			✓		A, D, 20, 21
b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?			✓		A, D, 22
c. Substantially increase hazards due to a geometric design feature (e.g., a sharp curve or dangerous intersection) or incompatible uses (e.g., farm equipment)?		✓			A, D

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
d. Result in inadequate emergency access?				✓	A, D
e. Result in an increase in traffic hazards to motor vehicles, bicyclists, or pedestrians, including short-term construction and long-term operational traffic?		✓			A, D

Impact Discussion

17a The project does not include any built components or an operational phase and would therefore not contribute to ongoing demand for transit service, bike facilities, or pedestrian facilities. As a grading project without any proposed structures, the project would not be required to install bicycle racks, or carpool or vanpool spaces per the California Building Code. Due to the short-term, temporary nature of the project, an operational traffic analysis is inapplicable to this project. The Institute of Transportation Engineers (ITE) Trip Generation Manual contains trip generation rates only for project operations. Instead, an analysis using the construction equipment will be provided here. During project construction, the project would utilize the following equipment:

Dredging Site

- Two (2) D6N-LGP Swamp Cats
- One (1) Excavator
- Up to seven (7) 6- to 10-wheel dump trucks

Disposal Site

- Two (2) 325 Class Excavators (70,000-80,000 pound)
- One (1) D6H Bulldozer

Traffic anticipated from the project would occur from construction only, for a period of two to three weeks every three to four years, while sediment is dredged and hauled from the lakebed. All equipment but the dump trucks will be driven to the relative construction sites and parked there for the duration of the three-week construction period. The dump trucks would haul approximately 10 cubic yards per trip with up to 50,000 cubic yards total per dredging year, for a total of approximately 240 one-way trips. Additional incidental trips are also expected from vendors (e.g., watering trucks) and internal Lake Wildwood Public Works trucks. During hauling activities, truck trips would occur over a disbursed period of time from approximately 7 AM to 5 PM on Lake Wildwood community roads and a short segment of the privately maintained Bosa Drive. No traffic would occur on public roads. Therefore, the project would not have any substantial adverse impacts to peak hour traffic, or to overall circulation on public roads. The project is also short-term in nature, occurring for two to three weeks every three to four years so it would not interfere with long terms plans to construct bike paths or increase transit services for disabled, senior, and low-income populations as identified in the Nevada County Regional and Active Transportation Plans. The potential increase in traffic resulting from the proposed dredging project would therefore be insignificant in nature and there would be **less than significant** impacts relative to conflicts with traffic and non-motorized transportation.

17b CEQA Section 15064.3(b) describes specific considerations for evaluating a project's transportation impacts. Generally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, "vehicle miles traveled" (VMT) refers to the amount and distance of automobile travel attributable to a project. According to the Senate Bill 743 Vehicle Miles Traveled Implementation, adopted by the Nevada County Transportation Commission, a project's or plan's VMT impact may be considered less than significant if "the project or plan total weekday VMT per service population is equal to or less than "X" percent below the subarea mean under baseline conditions" and "the project or plan is consistent with the jurisdiction's general plan and the Nevada County Regional Transportation Plan."

A specific reduction "X" below subarea baseline VMT may be selected by each jurisdiction based on key factors such as the setting (as noted in CEQA Guidelines Section 15064(b)(1)), evidence related to VMT performance, and policies related to VMT reduction.) However, analysis of smaller, less complex projects can be simplified by using screening criteria. The Office of Planning and Research suggests that screening thresholds may be used to identify when land use projects should be expected to cause a less than-significant impact without conducting a detailed study. Screening thresholds identified by the Nevada County Transportation Commission (NCTC) Senate Bill 743 Vehicle Miles Traveled Implementation document include projects in western Nevada County consistent with a Regional Transportation Plan (RTP) or General Plan that generate less than 630 VMT per day. This value is based on the CEQA exemptions allowed for projects up to 10,000 square feet as described in CEQA Guidelines Sections 15303. The specific VMT estimate relies on the vehicle trip generation rate contained in the OPR Technical Advisory for small project screening and average vehicle trip lengths for western Nevada County using the travel forecasting model.

Given that the farthest distance a haul truck would travel with this project is three miles, VMT per day for the duration of the project would conservatively be calculated as follows (number of trips per day is discussed in Section 17a above):

$$3 \text{ miles} \times (2 \times 240 \text{ one-way trips}) = 1,440 \text{ vehicles miles traveled per day}$$

Additional project vehicle trip mileage should also be added to this figure to account for workers and vendors traveling to the site each day. According to the CalEEMod report for the project, in addition to the haul trips, the project would result in the following additional trip lengths:

Worker 32.5 trips x 2 (round-trip) x 10.5 miles =	682.5 VMT
Vendor 20 trips x 2 (round-trip) x 7.02 miles =	280.8 VMT
Onsite trucks 20 trips x 2 (round-trip) x 3.0 miles =	120 VMT
<u>Subtotal =</u>	<u>1,083.3 VMT</u>
Total VMT = 1083.3 + 1,440 VMT	2,523.3 VMT
	per dredging operation

Due to the fact that the VMT threshold of 630 VMT per day listed above is an operational threshold, the total VMT for each round of dredging operations product should then be averaged over the course of three years, which is how often the project would occur.

2,523.3 VMT / (365 days x 3 years) = 2.3 VMT per day averaged

Given that this average VMT is less than the threshold of 630 VMT per day, this project would have a **less than significant** impact related to VMT.

- 17c,e The project would not result in an increase in hazards due to a geometric design feature because the project does not include the construction of any structures and would not modify road circulation. Construction vehicles would be traveling at approximately 15 miles per hour per **Mitigation Measure 3A** on private Lake Wildwood roads where the speed limits are 25 miles per hour. This speed differential could result in traffic hazards due to incompatible traffic speeds. However, with the implementation of a construction traffic management plan as outlined in **Mitigation Measure 17A**, this impact would not be adverse.

Most of the sediment hauling would occur on private roads owned by the applicant, and any incidental damage to those roads within the community of Lake Wildwood would be repaired by the Lake Wildwood HOA. For the short segment of Bosa Road that the applicant would use to access the disposal location, impacts would be reduced with the mitigation identified in **Mitigation Measure 17B** which requires the applicant to pay fair share road maintenance costs with the implementation of a private Road Maintenance Agreement. Impacts related to traffic incompatibilities and incidental road damage would be less than significant with mitigation with implementation of Mitigation Measures 17A and 17B.

- 17d The proposed project consists of short-term dredging, grading, and sediment disposal and would therefore have **no impact** relative to resulting in inadequate emergency access.

Mitigation Measures: To offset potentially adverse traffic and circulation impacts associated with project construction, the following mitigation measures in addition to **Mitigation Measure 3A** shall be required:

Mitigation Measure 17A: Implement a Construction Traffic Management Plan. Prior to issuance of grading and improvement permits, the applicant shall submit a Construction Traffic Management Plan to the County for review and approval. The plan shall include but not be limited to the use of advanced warning signage, electronic communication protocols to inform residents of the work being done and the route construction vehicles will take, and other appropriate traffic control measures. Relevant measures shall be noted on all construction plans prior to issuance of permits.

Timing: *Prior to issuance of grading and improvement permits*

Reporting: *Permit issuance*

Responsible Agency: *Planning Department*

Mitigation Measure 17B: Provide a Road Maintenance Agreement for Bosa Drive. Prior to issuance of grading and improvement permits, the applicant shall submit a Road Maintenance Agreement (RMA) for Bosa Drive to ensure that the applicant pays a fair share of the cost to maintain the portions of Bosa Drive affected by the project, per Civil Code Section 845. If an RMA already exists, the applicant shall provide it to the County. The RMA must be recorded prior to the start of hauling on Bosa Drive and a copy shall be provided to the Planning Department prior to issuance of grading permits.

Timing: *Prior to issuance of grading and improvement permits*

Reporting: Permit issuance
Responsible Agency: Planning Department

18. Tribal Cultural Resources

Existing Setting: Assembly Bill 52 (Chapter 532, Statutes 2014) required an update to Appendix G (Initial Study Checklist) of the CEQA Guidelines to include questions related to impacts to tribal cultural resources. Changes to Appendix G were approved by the Office of Administrative Law on September 27, 2016. Tribal Cultural Resources include sites, features, and places with cultural or sacred value to California Native American Tribes. See Section 5 Cultural Resources for additional information regarding tribal resources.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: <ul style="list-style-type: none"> i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. 		✓			A,6,7

Impact Discussion:

18a The proposed project is located within the lakebed of Lake Wildwood and on two nearby rural dredge disposal sites. One historic-era resource, the “Riffle Box Canal” was identified at the dredge disposal site. However, this resource is located over 100 feet from the area of work, and will not be impacted. No other prehistoric, or archaeological resources were discovered during cultural resources inventory surveys. However, there is always potential for unanticipated discovery of cultural resources, including historic, pre-historic, and paleontological resources during project construction. **Mitigation Measures 5A, 5B, and 5C** require cultural awareness training for all workers on site, halting working and notifying applicable agencies if human remains or cultural materials are found, and completing an

additional survey of the lakebed after the water has been drawn down. Therefore, the impact to tribal cultural resources is **less than significant with mitigation**.

Mitigation Measures: Potential impacts to tribal cultural resources will be mitigated with **Mitigation Measures 5A-C**.

19. Utilities and Service Systems

Existing Setting: The project will take place within and adjacent to the Lake Wildwood Community Region. This unincorporated part of the county is served by Pacific Gas & Electric for electricity needs. Solid waste needs of the community are handled by Waste Management and the McCourtney Road Transfer Station. Sewage disposal needs are served by the Lake Wildwood Sanitation District at the lakebed parcel and by septic systems at the disposal sites. Nevada Irrigation District serves the Lake Wildwood subdivision with water; water is provided through private wells at the disposal sites.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Require or result in the relocation or the construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?				✓	A
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				✓	A
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				✓	A
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste goals?		✓			A, 5
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?		✓			A, 5

Impact Discussion:

19a The project is dredging and disposal of dredge spoils. No new, relocated, or expanded utility facilities are needed in relationship to this project. Therefore, there is **no impact** related to such facilities and their environmental effects.

- 19b The proposed project is dredging and disposal of dredge spoils and does not require water supplies, so there are **no impacts** related to water supplies.
- 19c The proposed project neither requires a new wastewater treatment facility or connection to a new wastewater treatment facility. As such, **no impacts** are anticipated to wastewater treatments facilities.
- 19d,e The dredging of Lake Wildwood will result in dredge spoils to be deposited at the disposal site with a grading permit. The dredge spoils will be tested for toxic materials pursuant to **Mitigation Measure 4B**. If the soils exceed state threshold limits for toxic materials, they shall be disposed of not at the disposal site, but at the appropriate hazardous waste facilities. No other solid waste is anticipated as part of this project. Therefore, the impact to solid waste statutes, goals, standards, and regulations is **less than significant with mitigation**.

Mitigation Measures: To offset potentially adverse impacts related to construction waste **Mitigation Measure 4B** shall be required.

20. Wildfire

Existing Setting: The lakebed parcel is within the Penn Valley Fire Protection District and the disposal site parcels are within the Rough and Ready Fire Protection District. All three parcels are within a High Fire Hazard Severity Zone as designated by CalFire. The project site is in and adjacent to the Lakewood Wildwood Community Region in Western Nevada County. It is in an area that is developed with residential and agricultural uses. The Safety Element of the Nevada County General Plan addresses wildfire hazards in Nevada County and has several policies to improve fire safety. Nevada County has also adopted a Local Hazard Mitigation Plan (LHMP) that was updated in May 2018. Additionally, there is a Community Wildfire Protection Plan for Nevada County that was updated in April 2016.

The Nevada County Office of Emergency Services published a Wildfire Evacuation Preparedness Action Plan in 2020. The plan highlights five initiatives to reduce wildfire risk in Nevada County:

1. Create safer evacuation routes countywide to save lives.
2. Improve early warning systems and emergency communications to reach everyone.
3. Establish defensible space around our homes and neighborhoods by reducing hazardous vegetation and encouraging voluntary compliance with defensible space standards.
4. Provide a coordinated approach to wildfire response preparedness through planning, community engagement, and project implementation.
5. Enhance critical infrastructure needed to respond to wildfires such as evacuation route improvements, water storage, fire hydrants, communication systems, and green waste facilities.

The Lake Wildwood Association publishes an emergency evacuation map and protocol.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?				✓	A, 14
b. Due to slope, prevailing winds, or other factor, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrollable spread of wildfire?				✓	A
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				✓	A
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?		✓			A

Impact Discussion

- 20a The project proposes dredging of Lake Wildwood and disposal of dredge materials on nearby rural sites that have been previously used for dredge disposal. The dredge material will be hauled on established roads, and no road closure or other disruption of traffic is anticipated in this project. The Lake Wildwood emergency evacuation protocol and evacuation route would not be interrupted by the project. Therefore there is **no impact** on impairment of an adopted emergency response plan or emergency evacuation plan.
- 20b The proposed project does not include any structures and will not have any occupants. Therefore, there are **no impacts** related to exposing project occupants to pollutant concentrations from a wildfire or the uncontrollable spread of wildfire.
- 20c The project proposes dredging of Lake Wildwood and disposal of dredge materials on nearby rural sites that have been previously used for dredge disposal. No installation or maintenance of infrastructure is included in the project. Therefore, there is **no impact** on exacerbating fire risk or temporary or ongoing impacts to the environment related to installation or maintenance of associated infrastructure.
- 20d The project proposes dredging of Lake Wildwood and disposal of dredge materials on nearby rural sites that have been previously used for dredge disposal. A grading permit is required to remove sediment from Lake Wildwood and deposit it at the disposal site. Approximately 1.5 acres of trees will be removed to create more space for dredge disposal, which reduces fuels for wildfires, but may change the slope stability or runoff from the site. The grading will be in compliance with all grading standards, including erosion control measures and assurance of slope stability with the final graded work. There are no people or structures downslope of the project site. There are watercourses in the vicinity of the

disposal area that could receive runoff or sediment from the disposal activities. **Mitigation Measure 4C** requires that all dredge spoils be deposited in an upland location where they will not impact watercourses and **Mitigation Measure 4E** includes a comprehensive list of water quality best management practices to ensure there is less than significant impact to watercourses in the area. Even if sediment did escape into the nearby watercourses, there are no people or structures in the direct vicinity of the spoils sites that would be affected. Along with drainage and erosion control standards included with grading permits, these mitigation measures will ensure that the impact related to exposure of people or structures to significant risk related to downslope or downstream flooding or landslides is **less than significant with mitigation**.

Mitigation: See Mitigation Measures 4C and 4E.

21. Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of major periods of California's history or prehistory?		✓			A
b. Does the project have environmental effects that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of the project are considered when viewed in connection with the effects of past, current, and probable future projects.)			✓		A
c. Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?		✓			A

Impact Discussion:

21a This draft Initial Study/Mitigated Negative Declaration evaluates the potential impact the proposed Lake Wildwood Dredging project could have on the environment. Compliance with existing federal, state, and local regulations and mitigation measures identified in this Initial Study would reduce all potential impacts of the proposed project to a less than significant level. As discussed in the Biological Resources section, the project will have less than significant impacts with mitigation on the habitat and populations of protected plant and animal species. The Cultural Resources, Geology and Soils, and Tribal Cultural

Resources sections find that impacts to important examples of major periods of California's history or prehistory will also be less than significant with mitigation. With the proposed mitigation measures, this project will have a **less than significant impact with mitigation** to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of major periods of California's history or prehistory.


- 21b The objective of the project is to dredge sediment from Lake Wildwood and dispose of it on nearby rural parcels so that the lake retains its recreational, aesthetic, and drainage capacity for the surrounding community. This project does not increase allowed density, change allowed uses, or concurrently permit any other scope of work. Therefore, the project's cumulatively considerable impacts are **less than significant**.
- 21c The dredging project would not result in any substantial adverse effects to human beings, directly or indirectly, since each potentially significant impact can be reduced to a less than significant level with adherence to the mitigation measures outlined in this report and compliance with existing federal, state, and local regulations. This includes potential impacts to noise, recreation, transportation, public services, population and housing, and utilities and service systems. Therefore there would be no substantial adverse effects to human beings as a result of the project, resulting in impacts that would be **less than significant with mitigation**.

Mitigation Measures: To offset potentially adverse impacts to aesthetics, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, recreation, transportation, tribal cultural resources, and utilities and service systems, **Mitigation Measures** have been included and can be found the above-referenced sections.

Recommendation of the Project Planner

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or a "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.


Marie Maniscalco, Associate Planner

Date: January 25, 2024

Appendix A – Reference Sources

- A. Nevada County Planning Department
 - B. Northern Sierra Air Quality Management District
 - C. Nevada County Geographic Information Systems
 - D. Nevada County Department of Public Works
 - E. Nevada County Environmental Health Department
 - F. Penn Valley Fire Protection District
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