

Chapter 7

Regulatory Compliance



Phoenix Lake Preservation & Restoration Plan

1.0 INTRODUCTION

This chapter describes regulatory compliance requirements and strategies for implementing the Phoenix Lake Preservation and Restoration Plan (PLPRP). Emphasis is placed on the regulatory requirements for implementing the sediment removal and wetland enhancement plan for Phoenix Lake (See Chapter 3), as this component of the PLPRP is furthest along in the design development process. Regulatory compliance strategies for sediment management activities in the watershed are also discussed, but in more general terms.

The purpose of this chapter is to provide the planning team developing the PLPRP an overview of likely regulatory requirements to implement the plan. It is useful to keep these regulatory requirements in mind as subsequent planning steps are taken. This chapter is organized as follows:

Section 1 - Introduction

Section 2 - Regulatory Compliance for Lake Preservation and Restoration Elements

Section 3 - Regulatory Compliance for Watershed-based Sediment Management

Section 4 - Costs & Schedule

Section 5- Summary & Next Steps

2.0 REGULATORY COMPLIANCE FOR LAKE PRESERVATION AND RESTORATION ELEMENTS

2.1 Overview

Regulatory compliance for the sediment removal and wetland enhancement plan (project or Lake Plan) will require compliance with the California Environmental Quality Act (CEQA) and obtaining several permits or

approvals from federal, state and local agencies. The project would also require compliance with the National Environmental Protection Act (NEPA), if federal funds are used to implement the project. This section provides a description of relevant laws and regulations likely applicable to the project, and a recommended compliance approach for each permit or approval.

2.2 CEQA/NEPA Compliance

CEQA is the cornerstone of environmental law and policy in California. The basic purposes of CEQA are to:

- Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

With certain strictly limited exceptions, CEQA requires all state and local government agencies (including water agencies and utility districts such as TUD) to consider the environmental consequences of projects over which they have discretionary authority before taking action on those projects. It establishes both procedural and substantive requirements that agencies

must satisfy to meet CEQA's purposes and objectives.

NEPA is the federal counterpart to CEQA. NEPA requires federal agencies to use all practicable means to create and maintain conditions under which man and nature can exist in productive harmony. Section 102 requires federal agencies to incorporate environmental considerations in their planning and decision-making through a systematic interdisciplinary approach.

In general, the first step in the CEQA/NEPA compliance process is to assess whether the project would result in significant environmental impacts. This is accomplished by completing an Initial Study (IS) under CEQA, and an Environmental Assessment (EA) under NEPA. If the IS or EA find no significant environmental impacts, then the CEQA lead agency may prepare a Negative Declaration (ND) or Mitigated Negative Declaration (MND), and the NEPA lead agency would issue a Finding of No Significant Impact (FONSI). The MND or FONSI may identify measures which the agency will take to mitigate potentially significant impacts.

If the IS or EA determines that the environmental consequences of a proposed project may be significant, an Environmental Impact Report (EIR) is prepared under CEQA, and an Environmental Impact Statement (EIS) is prepared under NEPA. An EIR/EIS is a more detailed evaluation of the proposed project and potentially feasible alternatives. The public, other federal and state agencies and outside parties may provide input into the preparation of an EIR/EIS and then comment on the draft EIR/EIS when it is completed. It is important to note that the thresholds for "significant environmental impacts" differ among CEQA and NEPA, and it is not uncommon that a project could have significant environmental impacts

under CEQA, but not NEPA. In these instances, a joint EIR/EA may be completed.

Compliance Approach for Phoenix Lake

Most aspects of the sediment removal and wetland enhancement plan for Phoenix Lake have been developed to a point where there is sufficient information available to initiate the CEQA/NEPA process. However, there remains significant uncertainty with respect to sediment disposal once removed from the lake. The fate of the sediment, including the distance and route to the reuse/disposal locations and timescale over which it is removed (i.e., phasing), will determine the relative level of impact on traffic and air quality. For example, if 40,000 truck trips are required to move the sediment 30 miles to the disposal location, and the work is conducted in a one year period, this may result in significant traffic and air quality impacts. However, if the material is moved to a closer location, and construction is spread out over a longer period of time, then impacts on traffic and air quality may be under the significance threshold for CEQA/NEPA.

The TUD has several CEQA/NEPA compliance options to address this uncertainty. One option would be to prepare a Programmatic EIR/EIS. This type of EIR/EIS would describe and evaluate the project to the greatest extent feasible given the available information. When further information is available regarding the phasing of the project and specific reuse/disposal locations, TUD would conduct additional compliance (perhaps an IS/MND or EA) that tiers off the Programmatic EIR/EIS. The tiered document would only need to evaluate those impacts that were not fully addressed in the Programmatic document. For example, it is anticipated that impacts to biological resources and water quality could be fully evaluated in the Programmatic EIR/EIS and the tiered document would not need to address these topics. One

additional advantage of the Programmatic EIR/EIS approach is that the document could also evaluate sediment source control activities in the watershed at the “program-level.” This would allow sediment management activities in the watershed that require CEQA/NEPA compliance to tier off the Programmatic document.

Another compliance strategy would be to perform detailed traffic and air quality studies prior to completing an IS or EA. These studies would help determine the threshold for significant impacts and identify appropriate mitigation strategies. Using this compliance strategy, the project could be designed or phased in a manner that would not result in significant traffic or air quality impacts. Under this circumstance TUD may be able to prepare an IS/MND for the project¹. If it is determined that these impacts cannot be fully mitigated, then preparation of an EIR would be required. A potential drawback of this option is that implementation of the project would be bounded by the project description as defined in the CEQA/NEPA compliance document. Any substantive changes in the implementation plan could require preparation of a Supplemental EIR/EIS.

A third compliance strategy would be to delay initiating CEQA/NEPA compliance until the reuse/disposal sites and phasing plan are better defined. This option may allow for a more streamlined CEQA/NEPA compliance process, but it could extend the timeline for completing the regulatory compliance phase of the project.

¹ This assumes that all other CEQA/NEPA resource categories (e.g., biological resources, water quality, hazards) can also be mitigated to a level that is “less than significant.”

Each of the CEQA/NEPA compliance strategies described above has its merits and potential drawbacks. It is anticipated that a Programmatic approach would be the most costly option, but also the most flexible for the life of the project. The approach that would conduct traffic and air studies prior to CEQA/NEPA compliance has merit because the studies can be used to inform the design of the project, but may limit the flexibility for implementing the project. Finally, waiting to initiate CEQA/NEPA compliance until the reuse/disposal sites and phasing plan are better defined would likely be the most efficient and cost effective approach, but may delay the project schedule and limit the flexibility for implementing the project. The preferred approach should be selected based on funding resources and timeline for implementing the PLPRP.

2.3 Clean Water Act

The Clean Water Act (CWA) is the primary federal law that protects the quality of the nation’s surface waters, including lakes, rivers, and coastal wetlands. The CWA operates on the principle that all discharges into the nation’s waters are unlawful unless specifically authorized by a permit. The following sections provide details on specific sections of the CWA that are relevant to the project.

Section 404 - Fill Placement in Waters and Wetlands

CWA Section 404 regulates the discharge of dredged and fill materials into Waters of the United States. “Discharge of dredged material” and “discharge of fill material” are defined at 33 CFR 323.2. “Waters of the United States” (Waters of the U.S.) include all navigable waters, their tributaries and some isolated waters, as well as any adjacent wetlands to the aforementioned waters (33 CFR 328.3).

All of Phoenix Lake would be considered jurisdictional Waters of the U.S. because Sullivan Creek, which flows through Phoenix Lake, is tributary to traditionally navigable waters. Open water portions of the lake would be designated “non-wetland Waters of the U.S.”, and vegetated areas would be considered jurisdictional wetlands.

Permitting Agencies and Related Regulations

The U.S. Army Corps of Engineers (USACE) administers Section 404 of the CWA. Project proponents must obtain a permit from the USACE for all discharges of dredged or fill material into Waters of the United States, including wetlands, before proceeding with a proposed activity.

Two types of permits are issued under the CWA Section 404: general permits which cover certain classes of activities, and individual permits for activities that are not authorized under a general permit. General permits may be issued on a nationwide, state, or regional basis and exempt certain activities from individual permit requirements. Activities permitted with a general permit have minimal individual or cumulative adverse impacts on the environment.

National general permits are called nationwide permits (NWP). As of March 19, 2012, 52 NWPs are available for permitting activities such as maintenance of intake structures and minor dredging. Regional general permits (RGPs) are similar to NWPs but may only be used in certain regions. RGPs are issued by the Division or District Engineer for activities that fall within specific parameters. Local agencies with specific, identified activities that have minimal individual or cumulative adverse impacts on the environment may work with their USACE District to develop a RGP for the agency’s activities.

Individual permits may be issued for projects that do not fit within the definition of NWPs or a local RGP. They are similar to RGPs in that they may be developed to address a suite of activities specific to a particular agency and geographic region. The permit term for individual permits is identified as a permit condition and is not subject to a mandatory 5-year review cycle as are NWPs and RGPs. Under Section 404(b)(1) of the CWA, individual permits may be issued only for the least environmentally damaging practicable alternative. That is, authorization of a proposed discharge is prohibited if there is a practicable alternative that would have less adverse impacts and lacks other significant adverse consequences.

Compensatory Mitigation

Individual and general permits may include requirements for mitigation to account for negative impacts to Waters of the United States resulting from the activities for which the permits were issued. On March 28, 2006, the USACE and USEPA published a proposed rule (71 FR 15520) revising regulations governing compensatory mitigation for activities authorized by permits issued by the USACE. The proposed regulations are intended to establish performance standards and criteria for compensatory mitigation and mitigation banks, and to improve the quality and success of compensatory mitigation projects for activities authorized by USACE permits. The proposed regulations are also intended to account for regional variations in aquatic resource types, functions, and values, and apply equivalent standards to each type of compensatory mitigation to the maximum extent practicable.

The proposed 2006 rule includes a watershed approach² to improve the quality and success of compensatory mitigation projects in replacing losses of aquatic resource functions, services, and values resulting from activities authorized by the USACE.

Permitting Approach for Phoenix Lake

The Sacramento District of the USACE has jurisdictional authority over CWA Section 404 in Tuolumne County. The TUD would need to obtain an individual permit from the USACE because the project does not meet the conditions of any of the NWPs. Technically, dredging alone (i.e., without the discharge of fill material) does not require CWA 404 permit, as incidental release (fallback) of dredged material does not constitute discharge of fill (National Mining Association et al. v. U.S. Army Corps of Engineers). However, this technicality is rarely pursued by public agencies such as TUD. Furthermore, aspects of the project, as currently proposed, include discharge of fill material to Waters of the U.S. for beach and island creation.

The project has been developed to a sufficient level of detail to allow for preparation of the individual permit application. The permit application will need to quantify the amount of Waters of the U.S. to be impacted and the

volume and types of fill to be discharged. The quantification of impacts can be amended or updated through the permitting process as the design is further refined.

The individual permit application will be supported by a wetland delineation, biological assessment (See Section 2.5, Federal Endangered Species Act), cultural resources report (See Section 2.8, National Historic Preservation Act), Section 404(b)(1) alternatives analysis, and a habitat mitigation and monitoring plan (HMMP). As mentioned previously, the Section 404(b)(1) analysis will need to demonstrate that the project represents the least environmentally damaging practicable alternative. The HMMP will detail the mitigation and monitoring approach for impacts to wetlands. The project, as currently proposed, would result in a net loss of Waters of the U.S. due to beach creation. This is because a portion of the lake that is non-wetland Waters of the U.S. would be converted to uplands (i.e., beach). The loss of Waters of the U.S. may require compensatory mitigation. It could be argued that the proposed wetland enhancements will offset the loss of wetlands. In either case, long-term monitoring (5 or 10 years) will likely be required to evaluate the effectiveness of the proposed wetland enhancements and mitigation.

The individual permit issued by the USACE will likely have a 5 or 10 year coverage period. If project implementation takes longer than 5 or 10 years, the permit will need to be updated, including reinitiating federal Endangered Species Act (ESA) consultation, as necessary.

Section 401 - Water Quality Certification

Under CWA Section 401, applicants for a federal license or permit to conduct activities that may result in the discharge of dredged and fill materials into surface Waters of the U.S.

² The term “watershed approach” is a planning term used to describe a comprehensive regional approach to resource planning that considers physical processes and biologic conditions as they relate to ecosystem function within an integrated drainage (“watershed”) unit. The term is used here to imply an approach to mitigation that goes beyond the immediate project site to consider how resources can best be protected and/or restored through an integrated approach operating at the watershed scale.

(including wetlands) must obtain a Water Quality Certification (or Section 401 Certification) to ensure that any such discharge will comply with the applicable provisions of the CWA, including sections 301, 302, 303, 306, and 307, and state water quality standards. The Water Quality Certification is issued by the state in which the discharge would originate; or, if appropriate, from the interstate water pollution control agency with jurisdiction over affected waters at the point where the discharge would originate. Therefore, all projects that have a federal component and may affect state water quality (including projects that require federal agency approval, such as issuance of a CWA Section 404 permit) must also comply with CWA Section 401. The goal of CWA Section 401 is to allow for evaluation of water quality when considering activities associated with dredging or placement of fill materials into Waters of the U.S.

Permitting Agency and Related Regulations

In California, Water Quality Certifications are issued by the State Water Resources Control Board (SWRCB or State Board) and its nine Regional Water Quality Control Boards (Regional Boards or RWQCBs). Each Regional Board is responsible for implementing Section 401 in compliance with the CWA and with each Regional Board's respective water quality control plan (also known as a basin plan). Section 2.4 below provides more detail on the Porter-Cologne Water Quality Control Act, basin plans, and SWRCB regulatory requirements for projects occurring outside of Waters of the U.S. It is the policy of the Regional Boards to provide public notice of pending Section 401 Certification actions to gather comments from concerned agencies and the public.

The U.S. Environmental Protection Agency (USEPA) and Central Valley RWQCB have jurisdictional authority over CWA Section 401 in

Tuolumne County for Waters of the U.S. All project activities under USACE jurisdiction (federal nexus) require CWA Section 401 Certification from the RWQCB.

Permitting Approach for Phoenix Lake

Information required for the CWA Section 401 Water Quality Certification application is similar to the calculations required for the CWA 404 permitting. The Certification also requires that CEQA compliance be completed prior to issuance of the permit. The certification typically has a five year period of coverage, and may be reviewed annually and after the initial five year period with the potential option of a five year renewal.

Section 402

CWA Section 402 regulates discharges to surface waters (other than dredge or fill material) through the National Pollutant Discharge Elimination System (NPDES), administered by the USEPA. The NPDES program provides for both general permits (those that cover a number of similar or related activities) and individual permits for discharges to Waters of the U.S. In California, general permits are issued by the SWRCB and overseen by the RWQCBs. The SWRCB has issued general permits for discharges from construction, industrial, and municipal activities. Individual permits are issued by the RWQCBs. Construction of the Lake Plan would require CWA Section 402 compliance under the Construction General Permit.

Construction Permit

Construction-related stormwater discharges to Waters of the U.S. are regulated under the SWRCB's General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit). Projects disturbing more than 1 acre of land during

construction are required to file a notice of intent (NOI) with the RWQCB in which the activity would occur in order to be covered by the Construction General Permit before the onset of construction.

The Construction General Permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that must be completed before construction begins. The SWPPP must be completed by a Qualified SWPPP Developer (QSD). The SWPPP includes a site map and a description of proposed construction activities, along with a demonstration of compliance with relevant local ordinances and regulations and an overview of BMPs that will be implemented to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources. Permittees are further required to conduct monitoring and reporting to ensure that BMPs are correctly implemented and effective in controlling the discharge of stormwater-related pollutants. The monitoring must be conducted by a QSD or Qualified SWPPP Practitioner (QSP). The SWPPP for the project would typically be prepared once other project permits are in-hand, as they often specify BMPs that will need to be incorporated into the SWPPP.

2.4 Porter-Cologne Water Quality Control Act

The California Porter-Cologne Water Quality Control Act (Porter-Cologne Act) was passed in 1969 and together with the federal CWA, provides regulatory guidance to protect water quality and water resources. The Porter-Cologne Act established the SWRCB and divided California into nine regions, each overseen by a RWQCB. The Porter-Cologne Act established regulatory authority over “Waters of the State,” which are defined as “any surface water or

groundwater, including saline waters, within the boundaries of the state” (California Water Code, Division 7, § 13050). More specifically, the SWRCB and its nine RWQCBs have jurisdiction over lakes, stream channels and riparian corridors, and their beneficial uses.

The Porter-Cologne Act also assigns responsibility for implementing CWA Sections 303, 401, and 402 to the SWRCB and RWQCBs. The Porter-Cologne Act requires the development and periodic review of water quality control plans (Basin Plans) for the protection of water quality in each of the state’s nine regions. A Basin Plan is unique to each region and must identify beneficial uses, establish water quality objectives for the reasonable protection of the beneficial uses, and establish a program of implementation for achieving the water quality objectives.

The Central Valley RWQCB’s Basin Plan (RWQCB, 2009) establishes beneficial uses for the Upper Tuolumne watershed, which includes Phoenix Lake. Specific beneficial uses applicable to Phoenix Lake include:

- Municipal and domestic supply (MUN)
- Non-water contact recreation (REC-2)
- Freshwater Habitat (WARM and COLD)
- Wildlife Habitat (WILD)

Basin Plans provide the technical basis for the RWQCBs to determine waste discharge requirements (WDRs), take enforcement actions, and evaluate grant proposals. As described above in the discussion of CWA Section 401, regulatory compliance for projects occurring within Waters of the U.S. is met through a Water Quality Certification granted by the RWQCBs. For projects occurring within Porter-Cologne Act jurisdiction (i.e., State jurisdiction) but outside of Waters of the U.S. (in streams this is the area above the Ordinary High Water Mark, or “isolated” waters including

certain wetlands), WDRs or Waiver of WDRs are required. WDRs are issued by the RWQCB that has jurisdiction over the region in which the project occurs.

Compliance Approach for Phoenix Lake

The Central Valley RWQCB has jurisdictional authority to implement the Porter-Cologne Act in Tuolumne County. All projects conducted in Tuolumne County that occur in Waters of the State require WDRs under the Porter-Cologne Act. In practice, WDRs are combined with NPDES permitting requirements and the CWA Section 401 Water Quality Certification. WDRs require compliance with all current Basin Plan policies.

The Proposed Project is likely to improve beneficial uses designated for Phoenix Lake. Therefore, the Central Valley RWQCB is likely to support the project. However, the Central Valley RWQCB will enforce 401 Certifications and WDR's for sediment removal as applicable. These permits are likely to require toxicity testing of sediment before and during construction. Preliminary sediment testing conducted during this phase of the PLPRP suggests that lake sediments are not likely to be considered toxic or hazardous (See Chapter 3, Part II). Nevertheless, the Central Valley RWQCB may require more robust toxicity testing in the Porter-Cologne Act compliance process.

2.5 Federal Endangered Species Act

The federal ESA was enacted in 1973 to protect plant and wildlife species determined by U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) to be at risk of extinction. Species are protected through listing under the ESA as either threatened or endangered. An endangered species is at risk of extinction throughout all or

a significant portion of its range (ESA Section 3[6]). A threatened species is likely to become endangered within the foreseeable future (ESA Section 3[19]). Species protected under the ESA are often referred to as "federally listed."

ESA Section 9 prohibits the take of any fish or wildlife species listed under the ESA as endangered. Take of threatened species is also prohibited under ESA Section 9 unless otherwise authorized by federal regulations³. Take, as defined by the ESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Harm is defined as "any act that kills or injures the species, including significant habitat modification." In addition, ESA Section 9 prohibits the "removal or reduction to possession" of any listed plant species "under federal jurisdiction" (i.e., on federal land, where federal funding is provided, or where federal authorization is required).

The ESA includes three mechanisms that provide exceptions to the ESA Section 9 take prohibitions: ESA Section 7 consultation, ESA Section 10, and issuing ESA Section 4(d) rules. ESA Section 7 consultation allows for take coverage of federal actions. This would be the mechanism by which incidental take coverage, if needed, would be obtained for the project. For activities conducted outside of federal jurisdiction, ESA Section 10 provides mechanisms for incidental take through preparation of a habitat conservation plan (HCP). The project's federal nexus through CWA

³ In some cases, exceptions may be made for threatened species under ESA Section 4[d]; in such cases, the USFWS or NMFS issues a "4[d] rule" describing protections for the threatened species and specifying the circumstances under which take is allowed.

Section 404 permitting will enable ESA consultation through Section 7, and therefore obviate ESA Section 10, which is not discussed further in this chapter.

Section 7 - ESA Authorization for Federal Actions

Under ESA Section 7, the federal agency conducting, funding, or permitting an action (the lead agency) must consult with USFWS or NMFS, as appropriate, to ensure that the proposed action will not jeopardize endangered or threatened species or destroy or adversely modify designated critical habitat⁴. If a proposed project “may affect” a listed species or designated critical habitat, the lead agency is required to prepare a biological assessment (BA) evaluating the nature and severity of the expected effect. In response, USFWS or NMFS issues a biological opinion (BO), with a determination that the proposed action either:

- may jeopardize the continued existence of 1 or more listed species (*jeopardy finding*) or result in the destruction or adverse modification of critical habitat (*adverse modification finding*), or
- will not jeopardize the continued existence of any listed species (*no jeopardy finding*) or result in adverse modification of critical habitat (*no adverse modification finding*).

The BO issued by USFWS or NMFS may stipulate “reasonable and prudent” conservation measures. If the project would not jeopardize a listed species, USFWS or NMFS issues an

incidental take statement to authorize the proposed activity.

The ESA is administered by the USFWS and NMFS. In general, NMFS is responsible for protection of ESA-listed marine species and anadromous fishes while other listed species are protected under USFWS jurisdiction. As described above, USFWS and/or NMFS are engaged in the consultation process by the lead federal agency, often the USACE, and release of a final BO represents the conclusion of the consultation.

Compliance Approach for Phoenix Lake

In Tuolumne County, the USFWS Sacramento Field Office and NMFS’ Southwest Regional Office are responsible for take authorizations under the ESA. These agencies evaluate proposed actions, review BAs, and issue BOs in support of federal permitting activities. There are no species under the jurisdiction of NMFS with the potential to occur in program area. A BA would be prepared to assess if federally listed species under the jurisdiction of the USFWS have the potential to occur in the project area. If the BA determines that federally listed species are not likely to occur in the project area, and USFWS concurs with this assessment, then the USACE would complete informal consultation with USFWS. If the BA determines that federally listed species may occur in the project area, then the USACE would conduct formal ESA Section 7 consultation with USFWS. The formal consultation would result in the preparation of a BO for the project. It is anticipated that the BO would find the project would “not jeopardize the continued existence of any listed species.” As stated above, the BO may stipulate “reasonable and prudent” conservation measures to avoid or minimize impacts to federally listed species, as needed.

⁴ Critical Habitat is defined as specific geographic areas, whether occupied by listed species or not, that are determined to be essential for the conservation and management of listed species, and that have been formally described in the Federal Register.

2.6 California Endangered Species Act

The California Endangered Species Act (CESA) was established in the California Fish and Game Code (F&G Code), Sections 2050-2116. CESA was originally enacted in 1970 to designate wildlife, fish and plants as “endangered” or “rare”. In 1984, CESA was amended and species were reclassified as “endangered” or “threatened”. As of January 1985, all “rare” wildlife species were reclassified as “threatened” and the term rare was dropped from the code. For plants however, the classification of “rare” was maintained for plants listed under the California Native Plant Protection Act (Sections 1900-1913), but those plants are only subject to the protections of that act and not CESA.

The CESA states that all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation will be protected or preserved. The CESA sets forth procedures by which individuals, organizations, or the California Department of Fish and Game (CDFG) can submit petitions to the Fish and Game Commission requesting that a species, subspecies, or variety of plant or animal be added to, deleted from, or changed in status on the State lists of threatened or endangered species.

The CDFG maintains two key species lists for CESA listed species; (1) State and Federally Listed Endangered, Threatened and Rare Plants of California Listed Endangered and Threatened Animals of California. These lists are updated two times per year. The CDFG also maintains other lists of species with a range of protections through the F&G Code. These include California

Species of Special Concern lists (SSC) for fish, reptiles, amphibians, birds and mammals. A SSC is a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- is extirpated from the State or, in the case of birds, in its primary seasonal or breeding role;
- is listed as Federally-, but not State-, threatened or endangered; meets the State definition of threatened or endangered but has not formally been listed;
- is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status; and
- has naturally small populations exhibiting high susceptibility to risk from any factor(s) that if realized, could lead to declines that would qualify it for State threatened or endangered status.

In addition to these SSC species, the F&G Code provides protections for other species such as California Fully Protected Species and Special Plant Species. It is important to note that only species classified by the state as “threatened” or “endangered” fall under the protections of CESA. Such other special status species are generally protected through either F&G Code Sections 1602 (Streambed or Lakebed Alteration Agreement Program), California Fully Protected Species regulations or through CEQA discussed elsewhere in this chapter.

Like ESA, CESA also allows for incidental take of listed species. Take is defined under the F&G Code as any action or attempt to “hunt, pursue, catch, capture, or kill.” The incidental take

permit process is outlined in CESA (F&G Code Sections 2081 and 2080.1).

CESA (F&G Code Section 2081[b]) provides a means by which agencies or individuals may obtain authorization for incidental take of state-listed species. Take must be incidental to, and not the purpose of, an otherwise lawful activity. Requirements for a F&G Code Section 2081[b] permit include: the identification of impacts on listed species; development of mitigation measures that minimize and fully mitigate impacts; development of a monitoring plan; and assurance of funding to implement mitigation and monitoring.

For state-listed species that are also federally listed under the ESA, CESA allows for incidental take issued through ESA Section 7 or Section 10 to potentially provide incidental take coverage under CESA, assuming CDFG finds the protection and mitigation prescribed under the ESA consultation are sufficient. This is known as a “consistency determination.” Under F&G Code Section 2080.1, CDFG issues a letter of concurrence with the federal take authorization, along with any mitigation and monitoring measures. In some cases, CDFG may find partial consistency but require additional or different mitigation or monitoring measures.

Compliance Approach for Phoenix Lake

CDFG and the Fish and Game Commission are the primary entities whom implement and enforce provisions of the CESA, including the state species lists and F&G Code Sections 2080.1 and 2081. The CDFG conducts CESA consistency determinations and issues permits and letters of concurrence.

Implementation of the project is not anticipated to adversely impact CESA-listed species, but this will not be known until a formal biological

resource assessment is completed for the project. Bald eagle (*Haliaeetus leucocephalus*), a state Endangered and Fully Protected species, is known to visit the site, but is not breeding near the lake. Some California Species of Special Concern, such as tricolored blackbird (*Agelaius tricolor*) and western pond turtle (*Emys marmorata*), have the potential to be impacted by project activities. Protections for these species, as well as other non CESA-listed species, will be addressed through either F&G Code Section 1602 and/or CEQA.

2.7 Fish and Game Code Section 1602-Lake and Streambed Alteration Agreement Program

Under the F&G Code Section 1602, CDFG regulates projects that affect the flow, channel, or banks of rivers, streams, and lakes. F&G Code Section 1602 requires public agencies and private individuals to notify CDFG prior to construction of a project that will:

- substantially divert, obstruct, or change the natural flow or the bed, channel, or bank of any river, stream, or lake;
- substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake; or
- result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake.

Following receipt of notification, CDFG will determine if a Lakebed and Streambed Alteration Agreement (LSAA) will be required between CDFG and the project proponent. The LSAA typically includes restrictions on construction periods and locations and avoidance, minimization, and mitigation measures for potential impacts on habitat associated with Waters of the State.

Permitting Approach for Phoenix Lake

The CDFG's Central Region has jurisdiction over lake and streambed alteration activities occurring in Tuolumne County. Sediment removal and wetland enhancement activities will require notification under F&G Code Section 1602, which is likely to result in the negotiation of a LSAA with CDFG. Prior to submitting the notification package, input from CDFG will be sought regarding the design of the project. Thus, CDFG will have participated in the design process. As such, it is anticipated that the LSAA will primarily be related to avoidance and minimization measures to be adhered to during construction, and potentially post-project monitoring requirements. It is anticipated that the LSAA will have a 5-year permit term, and will be available for review and a 5-year renewal following the initial 5-year period.

2.8 National Historical Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, requires federal agencies (or agencies to which they provide funding or issue permits) to take into account the effects of their actions on cultural resources, including historic properties and historic and prehistoric archaeological sites. In addition, NHPA Section 106 requires lead agencies to:

- provide review and comment opportunities on actions that may affect cultural resources to the Advisory Council on Historic Preservation (an independent federal agency responsible for advising the president and Congress on historic preservation), and to
- coordinate with the State Historic Preservation Officer (SHPO) in the state where the proposed action will take place.#

Federal review of projects is normally referred to as the Section 106 process. The Section 106 review process normally involves the following four-step procedure described in detail in the implementing regulations (36 CFR Part 800):

- identify and evaluate historic properties in consultation with the SHPO and interested parties;
- assess the effects of the undertaking on properties that are eligible for inclusion in the NRHP;
- consult with the SHPO, other agencies, and interested parties to develop an agreement that addresses the treatment of historic properties and notify the Advisory Council on Historic Preservation; and
- proceed with the project according to the conditions of the agreement.

Compliance Approach for Phoenix Lake

The SHPO has jurisdictional authority over NHPA Section 106 in California. Any federal action, such as issuance of project permits, must gain approval by the SHPO for compliance with NHPA Section 106. As such, all project activities within USACE jurisdiction (federal nexus) require compliance with NHPA Section 106. Compliance generally involves completion of a cultural resources inventory, evaluation of resources, and implementation of avoidance and mitigation measures for projects that may have an impact on cultural resources.

2.9 Other Permits and Approvals

The proposed project is likely to require review by the California Division of Safety of Dams (DSOD). The DSOD would review the project plans for conformance with water rights and design standards to ensure that the project would not increase the size of the lake beyond the allowable storage capacity or compromise the structure and safety of Phoenix Dam. This

review would likely consist of TUD submitting the plans to DSOD for review. The DSOD would likely provide comments on the plans that would need to be addressed in revisions to the plans and/or design report.

Finally, the project may be subject to provisions in local land use plans and/or local permits and approvals issued by Tuolumne County.

3.0 REGULATORY COMPLIANCE FOR WATERSHED-BASED SEDIMENT MANAGEMENT

3.1 Overview

The proposed erosion control and sediment management projects for the Phoenix Lake watershed are detailed in Chapter 2, *Sediment Source Control and Management Plan* (Sediment Control Plan). Table 2-2 of the Sediment Control Plan identifies more than 20 erosion control and sediment management projects that could be implemented in the watershed. From a regulatory compliance standpoint, these projects fall into two general categories: (1) projects that will occur in wetlands or other Waters of the U.S. or State (Waters), and (2) projects that will occur in uplands. These two categories of projects are discussed in the following sections.

3.2 Sediment Source Control Projects in Wetlands or Waters

Most of the proposed erosion control and sediment management projects would involve work within wetlands and/or Waters. This includes most bank stabilization and sediment basins projects, as well as many gully stabilization and culvert projects. Implementing projects that involve work within wetlands or Waters would require the following permits:

- CWA Section 404 with ESA Section 7 and NHPA Section 106 consultations;
- CWA Section 401 Water Quality Certification and Porter-Cologne Act; and
- F&G Code Section 1602 and CESA.

CEQA compliance would also be necessary for any of the projects that require the discretionary permits listed above.

Permitting erosion control and sediment management projects on an individual basis would be costly and time consuming. Therefore, a programmatic permitting approach is recommended. The programmatic permits would cover a range of erosion control and sediment management activities that may be conducted in the watershed. The TUD and other project partners (e.g., Tuolumne County Road Maintenance, Tuolumne County Resource Conservation District) could develop an erosion control and sediment management program, which would define the scope of the activities and establish guidelines for implementing the projects. The TUD and its project partners would apply for programmatic permits based on the information contained in the erosion control and sediment management program. Obtaining programmatic permits from resource agencies such as USACE, Central Valley RWQCB and CDFG is more time consuming than permitting a single project, but in the long run is far more efficient than permitting each project individually.

As mentioned in Section 2.2, CEQA/NEPA compliance for lake-based activities could also evaluate the impacts of sediment source control in the watershed at the programmatic-level. When specific watershed projects are being planned, additional CEQA/NEPA compliance to evaluate impacts not disclosed in the programmatic CEQA/NEPA document would

be completed, as necessary. Alternatively, CEQA/NEPA compliance for watershed activities could be conducted independent from the lake-based project.

3.3 Sediment Source Control Projects in Uplands

Upland sediment source control projects include roadcut stabilization or revegetation, and some gully stabilization projects. In general, small upland erosion control projects that do not require ground disturbance can be implemented without formal regulatory compliance. Large projects, that involve ground disturbance, grading or excavation should be evaluated by a qualified biologist for their potential to impact biological resources such as sensitive plants, animals and their habitats. Larger upland projects should also be evaluated for potential short-term impacts to water quality. Potential biological and water quality impacts can often be mitigated with appropriate BMPs and timing of construction. Upland projects involving disturbance of more than 1 acre are required to obtain coverage under the SWRQB's General Permit for Discharges of Storm Water Associated with Construction Activity. Projects of this scale are not anticipated to occur on a frequent basis.

4.0 COST & SEQUENCING

4.1 Cost Estimate

Table 7-1 provides a cost estimate for completing the regulatory compliance tasks associated with the sediment removal and wetland enhancement plan. For each compliance task, a range in costs is provided to account for uncertainties in the scope and scale of the project. It is assumed that much of the compliance work would be completed by consultants working under the direction of TUD.

Costs are provided in 2012 dollars and may fluctuate based on inflation, deflation and/or market conditions.

A cost estimate for obtaining programmatic permits for erosion control and sediment management projects has not been developed at this stage of the PLPRP. In order to develop an accurate cost estimate, preliminary consultations with USACE, Central Valley RWQCB and CDFG will be needed to define the scope of the program. This should be conducted in the next phase of the PLPRP.

4.2 Sequencing

Figure 7-1 provides a recommended sequencing and timeline for the regulatory compliance tasks associated with the Lake Plan. Figure 7-1 also shows the relationship between the regulatory compliance tasks and key engineering tasks or milestones.

The sequencing presented in Figure 7-1 assumes that traffic and air quality studies would be conducted based on a draft 60% engineering designs and Materials Management and Phasing Plan (MMPP). The 60% engineering designs and MMPP would be revised, if needed, based on the results of the traffic and air quality studies (i.e., revisions would be made to minimize impacts on traffic and air quality). The revised 60% engineering designs and MMPP would be the basis for CEQA/NEPA compliance and permitting. As described in Section 2.2, it is assumed that this approach would allow for the preparation of an IS/MND (and EA), rather than an EIR/EIS. If a different CEQA/NEPA compliance approach is taken, such as preparation of a programmatic EIR/EIS, there is sufficient flexibility in the timeline to accommodate such alternative approaches.

Table 7-1. Estimated Cost for Regulatory Compliance for the Phoenix Lake Preservation & Restoration Plan¹

Compliance Document, Permit or Approval	Low	High	Average	Notes & Assumptions
CEQA Compliance	\$120,000	\$225,000	\$172,500	Low estimate assumes preparation of an IS/MND. High estimate assumes preparation of an EIR. Assumes no NEPA required (Add 20% for NEPA). Includes traffic and air studies.
CWA Section 404	\$35,000	\$45,000	\$40,000	Includes preparation of an Individual Permit application, wetland delineation, 404(b)(1) alternatives evaluation, and Habitat Mitigation and Monitoring Plan.
ESA Section 7	\$15,000	\$20,000	\$17,500	Low estimate assumes preparation of a BA and informal consultation. High estimate assumes formal consultation.
NHPA Section 106	\$12,000	\$20,000	\$16,000	Low estimate assumes preparation of a Cultural Resources Report, but no documentation of newly discovered cultural resources. High estimate assumes documentation of up to 3 newly discovered cultural resources.
Clean Water Act Section 401 Water Quality Certification, WDRs and SWPPP	\$20,000	\$30,000	\$25,000	Differences in low and high estimates account for uncertainty in WDR permit requirements. Does not include sediment testing (add ~ \$50,000).
Fish and Game Code 1602- Lakebed & Streambed Alteration Agreement and CESA Compliance	\$12,000	\$20,000	\$16,000	Includes preparation of 1602 Notification form and Agreement Negotiations. Low estimate assumes limited CESA compliance is needed. High estimate assumes CESA consultation is needed.
DSOD & County Review	\$10,000	\$15,000	\$12,500	Coordination with DSOD and Tuolumne County for plan and project review.
Total	\$224,000	\$375,000	\$299,500	

1. Estimate is for lake sediment removal and wetland enhancement activities; watershed-based sediment source control or off-site reuse/disposal area assessments are not included. Cost estimate is based on 2012 Northern California environmental consulting industry rates. Permit filing fees are included, but compensatory mitigation and monitoring are not included.

Figure 7-1. Proposed Sequence for Environmental Compliance and Engineering Design Tasks for the Phoenix Lake Preservation & Restoration Project

Task		Estimated Timeline ¹ (Months)																											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
		1	Prepare Draft 60% Engineering Plans with Draft Materials Management and Phasing Plan	█																									
2	Conduct Traffic and Air Quality Studies					█																							
3	Revise 60% Engineering Plans and Materials Management and Phasing Plan								█																				
4	Initial DSOD Design Review											█																	
5	CEQA/NEPA Compliance																												
5.1	Prepare Initial Study/Environmental Assessment						█																						
5.2	Prepare Mitigated Negative Declaration/FONSI														█														
6	CWA Section 404, Section 401 Water Quality Cert																												
6.1	Prepare Wetland Delineation	█																											
6.2	Prepare 404(b)(1) Alternatives Evaluation								█																				
6.3	Prepare Biological Assessment								█																				
6.4	NHPA Section 106								█																				
6.5	Submit Permit Applications											█																	
6.6	Negotiate Permit CWA permits and Waste Discharge Requirements (WDR)											█																	

5.0 SUMMARY & NEXT STEPS

This chapter details the regulatory compliance requirements for implementing the PLPRP and provides a strategy for obtaining the necessary permits and approvals. The sediment removal and wetland enhancement plan for the lake specifies removal of over 400,000 cubic yards of sediment (See Chapter 3, Part II); some interested parties have suggested that considerably more sediment should be removed from the lake to restore storage capacity and improve habitats. At this juncture, there remain uncertainties regarding the fate of the sediment that is removed from the lake, and the phasing of the project. These elements of the project are important for evaluating the potential environmental impacts. For example, if all or a considerable portion of the material can be placed in adjacent agricultural fields, then impacts to traffic and air quality may be minimal.

However, if a substantial portion of the material needs to be hauled by trucks on Phoenix Lake Road, then these impacts could be considerable and may affect the phasing of the project and require costly mitigations. One could argue for assuming a worst case scenario when conducting environmental review, but this could result in TUD needing to certify a document that overstates the project's impacts on the environment. Several CEQA/NEPA compliance options are presented in Section 2.2 to address this uncertainty.

The sediment removal and wetland enhancement plan has been developed to a sufficient level of detail to allow for preparation of several key permit applications (e.g., CWA Section 404 permit, CWA Section 401 Water Quality Certification) and conduct outreach to resource agencies such as CDFG and the Central Valley RWQCB. It is anticipated that CDFG will

provide input on the conceptual sediment removal and wetland enhancement plans that will inform the next phase of design, and the Central Valley RWQCB will provide further guidance on sediment testing, handling and reuse/disposal criteria. Early consultation and ongoing communication with these agencies will help minimize schedule delays and design revisions.

Section 3 of this chapter presents a regulatory compliance strategy for watershed-based erosion control and sediment management projects. The strategy proposes programmatic permitting, rather than a project-by-project approach. The programmatic approach will require a substantial upfront investment of time and resources, but will be more efficient for long-term sediment management in the watershed. It may be feasible for the programmatic permits to encompass other infrastructure (roads, water, power) maintenance activities in the watershed, which would further promote efficiency for regulatory compliance. Preliminary consultations with potential project partners (e.g., Tuolumne County, PG&E) and resource agencies (e.g., USACE, Central Valley RWQCB, CDFG) is needed to define the scope of the program.