



State of California – Natural Resources Agency

DEPARTMENT OF FISH AND WILDLIFE

South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201

www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



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Governor's Office of Planning & Research

Alex Ho
Los Angeles County Flood Control District
P.O. Box 1460
Alhambra, CA 91802
alho@dpw.lacounty.gov

Oct 25 2021**STATE CLEARING HOUSE**

Subject: Comments on the Mitigated Negative Declaration for the Big Tujunga Reservoir Restoration Project, SCH #2021090475, Los Angeles County

Dear Mr. Ho:

The California Department of Fish and Wildlife (CDFW) has reviewed the draft revised and recirculated Initial Study/Mitigated Negative Declaration (MND) from the Los Angeles County Flood Control District (LACFCD; Lead Agency; hereafter "County") for the Big Tujunga Reservoir Restoration Project (Project). CDFW also reviewed the preceding 2013 draft MND and provided comments and recommendations in a letter dated July 2, 2013. Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State [Fish & G. Code, §§ 711.7, subdivision (a) & 1802; Public Resources Code, § 21070; Guidelines, § 15386, subdivision (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of California Environmental Quality Act (CEQA), CDFW is directed to provide biological expertise to lead agencies as part of environmental review, focusing on project activities that have the potential to adversely affect state fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Public Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code, including lake and streambed alteration (LSA) regulatory authority (Fish & G. Code, § 1600 *et seq.*) and the California Endangered Species Act (CESA; Fish & G. Code, § 2050 *et seq.*). To the extent implementation of the Project as proposed may result in "take", as defined by State law, or CESA-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish & G. Code, § 1900 *et seq.*), CDFW recommends the Project proponent obtain appropriate authorization under the Fish and Game Code.

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Project Description and Summary

Objective: The County is proposing the implementation of the Project, which involves the removal of up to 4.4 million cubic yards (MCY) of sediment from Big Tujunga Reservoir (Reservoir) over a term not to exceed five years. The sediment will be placed in the adjacent Maple Canyon Sediment Placement Site (SPS). The Project includes several components including vegetation removal, dewatering, surface water diversion, sediment excavation, sediment hauling, sediment placement, installation of new drainage infrastructure at Maple Canyon SPS, revegetation of Maple Canyon SPS, and monitoring. Reservoir dewatering, plunge pool dewatering, surface water diversions, and all sediment removal activities would occur every year of the Project term during the non-storm season, between approximately April 16 and October 14. Routine flood control and water conservation operations at Big Tujunga Dam (Dam) would resume during the storm season from approximately October 15 to April 15. The County is also proposing several minor activities to occur in conjunction with sediment removal activities. These minor activities include: (1) hydroblasting to flush a stilling well on the dam crest; (2) repairing the hydraulic sluiceway; (3) paving the unpaved sections of the north access road and repairing the culvert crossing; (4) incorporating slope protection measures adjacent to the spillway; (5) rehabilitating the northern reservoir access ramp to safely access the Reservoir bottom; (6) installing a boat dock at the dam face; and (7) performing minor coring on existing dam riser and installing a slide gate to facilitate dewatering.

Location: The Project is located at Big Tujunga Reservoir and Maple Canyon SPS within Angeles National Forest in the San Gabriel Mountains, Los Angeles County, California.

Comments and Recommendations

CDFW offers the comments and recommendations below to assist the County in adequately identifying, avoiding, and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources.

Comment #1: No-Flow Contingency Plan

Issue: Project activities will intentionally restrict stream flow for a controlled duration and may unintentionally restrict stream flow for an unknown duration.

Specific impacts: Project activities may impact aquatic species, riparian species, and their stream and riparian habitat downstream from the Dam. The Project may result in the loss or decline of instream habitat, loss of wildlife connectivity to a water source, loss or decline of an aquatic species' spawning areas, entrapment of aquatic species in isolated pools due to loss of water surface elevation, and direct take of fish, other aquatic species, and/or redds. Project activities include closing all outlet valves at Big Tujunga Dam, halting all water releases from the Reservoir to Big Tujunga Creek, and dewatering of the Reservoir, and dewatering of the plunge pool. These Project activities could result in the loss of wetted stream habitat, degraded stream habitat quality, degraded water quality, increased physiological stress and/or mortality of aquatic and riparian species, and take of special status species. Special status species observed immediately downstream from the Project location include arroyo chub (*Gila orcuttii*), Santa Ana speckled dace (*Rhinichthys osculus* ssp.), Santa Ana sucker (*Catostomus santaanae*), western pond turtle (*Emys marmorata*), least Bell's vireo (*Vireo bellii pusillus*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), southwestern willow flycatcher

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(*Empidonax traillii extimus*), yellow-breasted chat (*Icteria virens*), and yellow warbler (*Setophaga petechia*). Additional special status species are likely to occur in the Big Tujunga Creek riparian zone immediately downstream from the Project location.

Why impacts would occur: Section 3.1.3 in the MND describes intentionally halting all water releases from the Reservoir for a scheduled period of five days. This would be done by closing all outlet valves in the Dam. The MND describes “pre-dewatering activities” intended to prepare the Reservoir for dewatering. These pre-dewatering activities include installing a temporary surface water diversion system, dewatering the plunge pool below the Dam, and installing water quality filtration best management practices (BMPs) at the downstream end of the plunge pool.

CDFW is concerned that the Project could unintentionally generate a scenario where insufficient water passes through the Dam to downstream resources. This situation could arise at the end of each sediment removal season during the five-year Project term when the County’s contractor demobilizes from the Project site. The MND describes how the contractor would removal all components of the temporary surface water diversion system (“bypass line”) before the first major storm of the storm season. With all diversion structures removed, the Reservoir would presumably begin to fill with water conveyed by existing natural inflows from its tributaries including Big Tujunga Creek immediately upstream. However, these inflows would likely become impounded by the Dam until the water surface elevation within the Reservoir could rise enough to reach a dam outlet structure for downstream release (e.g., Riser 1, which has an inlet elevation of 2,188 feet above mean sea level, or the hydraulic slide gate at an elevation of 2,144 feet above mean sea level). The duration of this no-flow period would be dependent on several factors including but not limited to precipitation patterns within the watershed, watershed-specific hydrology, reservoir topography, reservoir sediment characteristics, dam design, dam outlet structure operational condition, and flood control operational procedures. The County has expressed a preference to hold water in a minimum pool ponded within the Reservoir to protect dam outlet valves during flood control operations (Big Tujunga Dam Low-Effect Habitat Conservation Plan section 3.1; see also MND section 2.3.4). Without a planned approach to provide sufficient water downstream during and immediately after sediment removal activities, the Project may substantially impact downstream resources, especially during periods of drought.

Evidence impacts would be significant: Section 5937 of the Fish and Game Code requires a dam owner to allow sufficient water at all times to pass over, around, or through a dam, to keep in good condition any fish that may exist below the dam. Insufficient water flows could directly and indirectly impact downstream resources including several special status species. Impacts to any special status species may be considered potentially significant (CEQA Guidelines, § 15380).

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: CDFW recommends that the County develop a No-Flow Contingency Plan prior to the beginning of Project activities, including dewatering of Big Tujunga Reservoir, in consultation with the appropriate regulatory agencies (e.g., CDFW, U.S. Fish and Wildlife Service, Regional Water Quality Control Board). This contingency plan should provide detailed guidance and specific protocols for Project personnel to follow in preparation and in response to situations where insufficient water passes through Big Tujunga Dam to downstream resources. To avoid violation of Fish and Game Code section 5937, the County should include methods for

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providing sufficient water to pass through Big Tujunga Dam. This plan should also include monitoring for stream condition, water quality, and stranded or distressed aquatic life downstream from the Project location. Surveys and relocation activities involving affected aquatic life should adhere to the Special Status Fish Relocation Plan described in Mitigation Measure BIO-4 of this MND. In the absence of a No-Flow Contingency Plan, downstream flows from Big Tujunga Reservoir may only be halted in emergency situations to prevent downstream flooding.

Mitigation Measure #2: CDFW recommends that the County design and conduct sediment removal within Big Tujunga Reservoir in a manner that avoids or minimizes the likelihood of potential no-flow scenarios. For example, sediment removal plans could prioritize excavation activities around certain dam outlet structures to reduce the duration of a no-flow scenario. Additionally, County contractors could excavate entrainment channels to help direct early seasonal storm flows to operational dam outlet structures for downstream release.

Mitigation Measure #3: CDFW recommends that the County design and implement Project activities within the plunge pool in a manner that does not contribute to a no-flow scenario. Sediment removal and the installation of water quality Best Management Practices within the plunge pool should not impede downstream flows or present a barrier to fish passage.

Comment #2: Impacts to Water Quality

Issue: Project activities may degrade water quality and impact aquatic species occurring within and downstream from the Reservoir.

Specific impacts: Project activities such as dewatering, surface water diversion, and sediment removal may result in increased turbidity, change in pH, change in water temperature, change in dissolved oxygen, direct take of aquatic species and redds, reduced reproductive capacity in aquatic species, and loss of resources for aquatic organisms.

Why impacts would occur: Project activities include dewatering the Reservoir through dam outlet valves (“pre-dewatering” during the storm season), dewatering the Reservoir minimum pool through water pumps, dewatering the plunge pool through water pumps, surface water diversion through bypass pipes, and sediment removal by mechanical excavation. These Project activities would occur for approximately seven months per year (April to October) for the duration of the Project term not to exceed five years. Dewatering activities in the Reservoir and plunge pool are likely to increase turbidity downstream as fine-grain sediments on the reservoir bottom become resuspended and discharged through dam outlet structures and/or water pumps. Increased turbidity can directly injure and irritate respiratory structures in aquatic organisms and result in mortality. Increased turbidity can also result in the decline or loss of instream vegetation that serves as food and habitat resources for aquatic species. Surface water diversions can potentially increase water temperatures, particularly if diverted flows are allowed to stagnate in artificial unshaded pools and/or they are conveyed through black-colored, solar-heated bypass pipelines. Adverse water temperatures can injure and stress sensitive aquatic organisms and result in mortality. High water temperatures can also reduce available dissolved oxygen, a critical resource essential to the survival of aquatic fauna. Several special status aquatic species have been documented to occur nearby, within, or downstream from the Reservoir including arroyo toad (*Anaxyrus californicus*), arroyo chub, coast range newt (*Taricha torosa*), Santa Ana speckled dace, Santa Ana sucker, two-striped garter snake (*Thamnophis*

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hammondi), and western pond turtle. Arroyo toad and Santa Ana sucker are Endangered Species Act (ESA)-listed endangered and threatened species, respectively. Arroyo chub, coast range newt, Santa Ana speckled dace, two-striped garter snake, and western pond turtle are [California Species of Special Concern](#) (SSC; CDFW 2021c).

An impact analysis provided by this MND states, "As dewatering of the Reservoir progresses, the amount of sediment carried in the water could increase as the reservoir [surface] becomes closer to the sediment in the bottom of the reservoir. If sediment-laden water is released into Big Tujunga Creek, it could impact water quality for the Santa Ana sucker downstream of [Big Tujunga Reservoir], possibly harming eggs of the sucker, and could therefore result in a potentially significant impact. Therefore, as required by [Mitigation Measure] BIO-4, filtration BMPs would be used to capture sediment during dewatering, before it is released into Big Tujunga Creek" (page 4-56 in Section 4.4.2). However, CDFW is concerned that these proposed measures are inadequate to avoid or even sufficiently minimize water quality impacts. The MND Project Description and Mitigation Measure BIO-4 describe the modification of the existing plunge pool to function as a desilting or sedimentation basin and water filtration BMP. Unlike conventional water quality BMPs such as Baker tanks or purpose-built desilting basins, the proposed plunge pool filtration BMP concept appears incapable of halting discharges of turbid water if needed. Therefore, turbid water (and other poor water characteristics like low dissolved oxygen, high water temperature, or adverse pH) will flow downstream unhindered, resulting in impacts to downstream resources.

Evidence impacts would be significant: CDFW concurs with the MND water quality impact analysis quoted above. Water quality impacts from Project activities could result in the direct injury, mortality, and/or reduced reproductive capacity of several special status aquatic species. CEQA provides protection not only for ESA-listed species, but for any species including but not limited to SSC which can be shown to meet the criteria for State listing. These SSC meet the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines, § 15065). Take of SSC could require a mandatory finding of significance by the County (CEQA Guidelines, § 15065). Inadequate avoidance and mitigation measures will result in the Project continuing to have a substantial adverse direct and cumulative effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species by CDFW or U.S. Fish and Wildlife Service (USFWS).

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: CDFW recommends the County implement the following discharge standards to avoid and/or minimize water quality impacts from pre-dewatering and dewatering activities:

After the reservoir water level reaches 2,188 ft above mean sea level (minimum pool elevation) before the start of each sediment removal season or lower in future seasons, reservoir water should only be discharged downstream if it meets or exceeds the following water quality standards:

- A. Oil and Grease. Waters should not contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water that cause nuisance, or that otherwise adversely affect beneficial uses.

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- B. Dissolved Oxygen. At a minimum, the mean annual dissolved oxygen concentration of all waters should be greater than 7 mg/L, and no single determination should be less than 5.0 mg/L, except when natural conditions cause lesser concentrations. The dissolved oxygen content of all surface waters should not be depressed below 6 mg/L as a result of waste discharges.
- C. pH. The pH of inland surface waters should not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels should not be changed more than 0.5 units from natural conditions as a result of waste discharge.
- D. Temperature. Waters with measured temperature exceeding 78 °F (25.5 °C) should not be discharged downstream.
- E. Turbidity. Downstream TSS shall be maintained at ambient levels. Where natural turbidity is between 0 and 50 Nephelometric Turbidity Units (NTU), increases should not exceed 20%. Where natural turbidity is greater than 50 NTU, increases should not exceed 10%. Ambient levels should be measured at a sampling location in Big Tujunga Creek at least 200 feet upstream from the point of diversion.

All of the following water quality parameters must be examined within the same calendar day of the intended water discharge: oil and grease, dissolved oxygen, pH, temperature, and turbidity. Reservoir minimum pool (or "dead pool") water that meets or exceeds water quality standards can be discharged downstream directly to the plunge pool. Plunge pool dewatering discharges must meet or exceed the same water quality standards described above. Water quality measurements for each discharge shall be recorded and provided to CDFW upon request.

Mitigation Measure #2: CDFW recommends the County amend Mitigation Measure BIO-4 to include the following underlined language to avoid and/or minimize water quality impacts from surface water diversion activities:

- I. "When the bypass line is in place, water temperature shall be maintained from the inflow to the outflow. The bypass line shall be insulated and/or methods shall be used to decrease the water temperature prior to it re-entering the stream (e.g., submerge, cover, or shade the bypass line; avoiding black or corrugated pipe if not shaded). A temporary trash rack shall be installed upstream of the stream bypass inlet pipe to help mitigate the potential for many types of blockages. This trash rack shall be monitored daily by a CDFW-approved qualified Biological Monitor or Designated Biologist and maintained daily to ensure effective operation for the duration of surface water diversion activities.

If a stream diversion is actively diverting surface water, then a CDFW-approved qualified Biological Monitor or Designated Biologist shall monitor water quality at a location upstream from the point of diversion and at the outlet of the diversion. Water quality parameters to be monitored include dissolved oxygen, pH, flow (e.g., cubic feet per second), and water temperature. Water quality monitoring data shall be collected under low flow conditions when the stream flow is stable at the point of diversion. Dissolved oxygen, pH, flow, and water temperature data shall be collected twice daily at the diversion before entering the conveyance, and at the downstream outlet of the diversion (once within 30 minutes before/after astronomical sunrise and once at 1200 hours of the workday) on Monday, Wednesday, and Friday during each week while stream diversion

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remains in place. CDFW will be notified of the person conducting the data collection via Email prior to initiating data collection. LACFCD will report stream diversion water quality monitoring data to CDFW on a weekly basis or upon CDFW request. The person collecting data shall be qualified to interpret water quality data and be responsible for interpreting data. CDFW will be notified immediately upon a staff change from the previous notification by LACFCD. LACFCD, LACFCD's designee, and/or CDFW shall determine whether the diversion is causing a substantial adverse impact, and LACFCD will cease operations until corrective measures are implemented. LACFCD shall notify CDFW representatives immediately if dead fish or adverse water quality parameters are observed.

If a stream diversion is actively diverting surface water, then a CDFW-approved qualified Biological Monitor or Designated Biologist shall monitor turbidity at a location 200 feet upstream from the point of diversion and at the outlet of the diversion. Turbidity at the outlet of the diversion should not exceed turbidity levels measured concurrently at a location 200 feet upstream from the point of diversion. Stream turbidity data shall be collected daily by LACFCD or their designee. LACFCD will report stream diversion turbidity monitoring data to CDFW on a weekly basis. LACFCD, LACFCD's designee, and/or CDFW shall determine whether the diversion is causing a substantial adverse impact, and Permittee will cease operations until corrective measures are implemented. LACFCD shall notify CDFW representatives immediately if an increase in turbidity is observed."

Mitigation Measure #3: CDFW recommends the County implement the following practices to reduce turbidity and other problems of degraded water quality during pre-dewatering releases from Big Tujunga Reservoir (water elevations at or above 2,188 feet above mean sea level):

1. Install water quality BMPs over or upstream from all dam outlet structures to reduce turbidity. Examples of appropriate BMPs might include geotextile filter fabric or turbidity curtains.
2. Reduce water releases from Big Tujunga Reservoir to the minimum rate needed to slowly lower the reservoir water elevation or to match natural inflows. Consider periodically closing dam outlet structures for short intervals to allow the reservoir minimum pool to function as a desilting basin.
3. Install aeration devices to increase dissolved oxygen in the plunge pool prior to pre-dewatering water releases from Big Tujunga Reservoir. Examples of appropriate aeration devices might include floating paddle wheels or bubblers.

Mitigation Measure #4: If the County cannot avoid Project activities during the peak spawning season for special status fish (see Comment #5 below), CDFW recommends the County to expedite installation of the surface water diversion system ("bypass pipe") as early as possible to limit turbid water discharges from the reservoir minimum pool. This could potentially be achieved after the first construction season by leaving portions of the diversion system pre-assembled in nearby staging areas or secured safely within the reservoir basin.

Mitigation Measure #5: CDFW recommends installation of protective structures intended to exclude aquatic species from the surface water diversion system. These structures should

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include temporary trash racks and fish blocking nets installed approximately 100 feet upstream from the bypass pipe intake and fish-exclusion screening installed directly over the bypass pipe intake. These structures will likely require frequent maintenance by Project personnel. CDFW recommends temporarily lining the streambed under these structures with durable sheeting material or other CDFW-approved material to minimize suspension of sediment by personnel working within the stream.

Comment #3: Impacts to Streams

Issue: The County has prepared the Big Tujunga Dam Low-Effect Habitat Conservation Plan (HCP) pursuant to Section 10 of the federal ESA to support consultation with USFWS. As noted in the HCP and this MND, permitting from CDFW may be required. CDFW is concerned that the Project, including its ongoing presence, operation, and maintenance of Big Tujunga Dam, impacts streams and riparian habitats.

Specific impacts: According to Table 4-15 Jurisdictional "Waters of the U.S. and CDFW Jurisdictional Waters" on page 4-67 of the MND, a total of 93.41 acres of streams and riparian habitat occur within the survey area. The Project would impact 46.02 acres within the Reservoir and Big Tujunga Creek upstream from the Dam, 1.45 acres within the dam plunge pool, and 2.11 acres within Maple Canyon SPS. Furthermore, the Project may potentially impact stream and riparian habitat downstream from the Project site not previously identified by the Project's jurisdictional delineation efforts.

Why impacts would occur: Project activities include vegetation removal, dewatering, surface water diversion, sediment removal by mechanical excavation, sediment placement, and continued dam operations. These Project activities could result in temporary or permanent impacts to streams. Vegetation removal within the Reservoir and Maple Canyon SPS may increase sediment and debris input to a stream. The Project proposes vegetation removal and sediment placement activities permanently impacting 2.11 acres of unspecified stream or riparian habitat within Maple Canyon SPS including 0.08 acres of California sycamore woodland. The Project also proposes vegetation removal and sediment removal impacting 46.02 acres within the Reservoir and Big Tujunga Creek upstream from the Dam and 1.45 acres within the dam plunge pool. Vegetation removal within the Reservoir, plunge pool, and upper Big Tujunga Creek would permanently impact white alder grove-California sycamore woodland, black willow thicket, arroyo willow thicket, mulefat thicket, smartweed-cocklebur patch, freshwater seep, and disturbed freshwater seep habitats. Sediment removal within the reservoir and plunge pool would change the contour and channel cross-section of a streambed. Dewatering activities may impact vegetated habitat within and near the reservoir basin and upper Big Tujunga Creek by removing the primary source of available surface water. Surface water diversion activities may impact vegetated habitat within and near the reservoir basin and upper Big Tujunga Creek by altering natural recharge of groundwater from surface flows. The continued presence of the Dam impacts stream and riparian habitats by presenting an impassable barrier to fish passage, impounding and restricting natural stream flows, and restricting natural sediment transport.

Evidence impacts would be significant: CDFW exercises its regulatory authority as provided by Fish and Game Code section 1600 *et seq.* to conserve fish and wildlife resources which includes rivers, streams, or lakes and associated plant communities. Fish and Game Code section 1602 requires any person, state or local governmental agency, or public utility to notify

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CDFW prior to beginning any activity that may do one or more of the following: divert or obstruct the natural flow of any river, stream, or lake; change the bed, channel, or bank of any river, stream, or lake; use material from any river, stream, or lake; or, deposit or dispose of material into any river, stream, or lake.

The Project may result in structures that could be considered very high threats or stressors to fish passage. Per CEQA Guidelines section 15065(a), a project may have a significant effect on biological resources if the project has the potential to substantially reduce the habitat of a fish species or substantially reduce the number or restrict the range of a special status species. Per Fish and Game Code section 5901, it is unlawful to construct or maintain in any stream any device or contrivance that prevents, impedes, or tends to prevent or impede, the passing of fish up and downstream. Additionally, per Fish and Game Code section 5936, it is unlawful to willfully destroy, injure, or obstruct any fishway. Lastly, per Fish and Game Code section 5937, the owner of any dam shall allow sufficient water at all times to pass through a fishway, or to keep in good condition any fish that may be planted or exists below the dam.

The Project may impact streams and riparian habitats, which absent appropriate mitigation, could result in substantial erosion or siltation within and downstream from the Project site. Furthermore, the Project may result in the loss of riparian habitat. Specifically, the Project may result in the direct removal of white alder grove-California sycamore woodland, California sycamore woodland, black willow thicket, arroyo willow thicket, mulefat thicket, smartweed-cocklebur patch, freshwater seep, and disturbed freshwater seep habitats. Additional riparian habitat types may be impacted indirectly by Project activities. Riparian habitats provide important food, nesting habitat, cover, and migration corridors for wildlife. Only 5 to 10 percent of California's original riparian habitat exists today and much of the remaining habitat is in a degraded condition (NRC 2002). Among the riparian habitats that occur within the Project area, white alder grove-California sycamore woodland, white alder grove-willow thicket, California sycamore woodland, black willow thicket, and arroyo willow thicket are considered Sensitive Natural Communities (CDFW 2021b).

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: The Project will result in the alteration of streams. As such, CDFW concurs with the Project's proposal to notify CDFW pursuant under Fish and Game Code section 1600 *et seq.* Based on this notification and other information, CDFW determines whether a Lake and Streambed Alteration (LSA) Agreement with the applicant is required prior to conducting the proposed activities. Please visit CDFW's [Lake and Streambed Alteration Program webpage](#) for information about the LSA Notification process and online submittal through the Environmental Permit Information Management System (EPIMS) Permitting Portal (CDFW 2021a). LSA Notification should occur prior to any of the following Project activities: (1) water releases from Big Tujunga Dam to lower the reservoir water level to an elevation of 2,188 feet above mean sea level; (2) Project vegetation disturbing activities within and near streams at Maple Canyon SPS; (3) "pre-dewatering activities" as described in section 3.1.2 of this MND; and (4) any ground-disturbing activities related to sediment removal in Big Tujunga Reservoir or the plunge pool.

Mitigation Measure #2: CDFW also recommends the County notify CDFW regarding ongoing routine operational and maintenance activities at Big Tujunga Dam in an effort to approach compliance with State law (Fish & G. Code, §§ 1600 *et seq.*, 5901, 5937). This LSA Notification

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can also be submitted through the EPIMS Permitting Portal. LSA Notification for dam operations and maintenance should occur prior to beginning water releases from Big Tujunga Dam to lower the reservoir water level to an elevation of 2,188 feet above mean sea level or other minimum pool elevation.

Mitigation Measure #3: CDFW recommends the County mitigate for Project impacts to streams and riparian habitat by replacing habitat at no less than 3:1 ratio for all impacts. CDFW considers all Project impacts from sediment removal and sediment placement to be permanent. Mitigation lands should support streams and riparian habitat of similar vegetation composition, density, coverage, and species richness and abundance.

Recommendation #1: CDFW's issuance of an LSA Agreement for a Project that is subject to CEQA will require CEQA compliance actions by CDFW as a Responsible Agency. As a Responsible Agency, CDFW may consider the CEQA document from the County for the Project. To minimize additional requirements by CDFW pursuant to Fish and Game Code section 1600 *et seq.* and/or under CEQA, the CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring, and reporting commitments for issuance of the LSA Agreement.

Any LSA Agreement issued for the Project by CDFW may include additional measures protective of streambeds on and downstream of the Project site. The LSA Agreement may include further erosion and pollution control measures. To compensate for any on- and off-site impacts to riparian resources, additional mitigation conditioned in any LSA Agreement may include the following: avoidance of resources, on- or off-site habitat creation, enhancement or restoration, and/or protection, and management of mitigation lands in perpetuity.

Recommendation #2: Per Fish and Game Code section 5901, it is unlawful to construct or maintain in any stream any device or contrivance that prevents, impedes, or tends to prevent or impeded, the passing of fish up and downstream. Accordingly, the County should coordinate with CDFW prior to implementing the Project so CDFW may determine if the Project would be in violation of Fish and Game Code section 5901.

Comment #4: Impacts to Least Bell's Vireo and Southwestern Willow Flycatcher

Issue: The Project could impact least Bell's vireo and southwestern willow flycatcher, both ESA- and CESA-listed species.

Specific impacts: Project activities could result in nest abandonment or decreased feeding frequency. This could result in increased nestling mortality thus significant impacts on least Bell's vireo and/or southwestern willow flycatcher.

Why impacts would occur: Project activities include vegetation removal, sediment removal by mechanical excavation, sediment hauling, dewatering, and surface water diversion. Least Bell's vireo or southwestern willow flycatcher individuals nesting within or near the Project site could be impacted by Project activities. Project activities could create elevated levels of noise, human activity, dust, ground vibrations, and vegetation disturbance. These disturbances and stressors occurring near potential nests could cause individuals to abandon their nests, resulting in the loss of fertile eggs or nestlings.

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Evidence impacts would be significant: CDFW considers adverse impacts to a species protected by CESA to be significant without mitigation under CEQA. As to CESA, take of any endangered, threatened, candidate species that results from the Project is prohibited, except as authorized by State law (Fish & G. Code, §§ 86, 2062, 2067, 2068, 2080, 2085; Cal. Code Regs., tit. 14, § 786.9). The Project has proposed Mitigation Measure BIO-6 to mitigate for potential impacts on least Bell's vireo and southwestern willow flycatcher. The mitigation measure would attempt to avoid "to the extent possible" vegetation removal during the nesting season and conduct focused protocol surveys to determine the presence and location of least Bell's vireo and southwestern willow flycatcher each year prior to the start of seasonal sediment removal activities. Mitigation Measure BIO-6 as proposed may not (1) commit the Project to mitigation, (2) adopt specific performance standards the mitigation will achieve, nor (3) identify the type(s) of potential action(s) that can feasibly achieve that performance standard that will be considered, analyzed, and potentially incorporated in the mitigation measure (CEQA Guidelines, § 15126.4). Consequently, Mitigation Measure BIO-6, as it is currently proposed, may be inadequate to reduce the Project's potential impacts on least Bell's vireo and southwestern willow flycatcher.

Inadequate avoidance, minimization, and mitigation measures for impacts on least Bell's vireo and southwestern willow flycatcher will result in the Project continuing to have a substantial adverse direct, indirect, and cumulative effect, either directly or through habitat modifications, on a species identified as a candidate, sensitive, or special status by CDFW or USFWS. Take under ESA is more broadly defined than CESA. Take under ESA also includes significant habitat modification or degradation that could result in death or injury to a listed species by interfering with essential behavioral patterns such as breeding, foraging, or nesting.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: CDFW recommends the County amend Mitigation Measure BIO-6 to include the following underlined language to offer increased protections to least Bell's vireo and southwestern willow flycatcher:

- A. ~~"To the extent possible,~~ vegetation clearing of riparian habitat shall be conducted during the non-breeding season (September 16 to March 14) in order to minimize direct impacts on nests of this species. Vegetation clearing of riparian communities shall be monitored by a CDFW-approved qualified Biologist (one with experience monitoring in riparian habitat). No riparian vegetation removal activities shall be conducted from March 15 to September 15.
- B. Prior to the start of sediment removal activities each year, a CDFW-approved qualified Biologist (one with experience and all necessary permits to survey for least Bell's vireo and southwestern willow flycatcher) shall survey all riparian habitat within 500 feet of the construction limits for the presence of least Bell's vireo and southwestern willow flycatcher nests/territories. Focused surveys for each species shall adhere to established USFWS survey protocols. Three surveys shall be conducted within two weeks prior to the initiation of Project activities each year. Any active nests/territories shall be mapped on an aerial photograph and marked on applicable construction plans. A Letter Report will be prepared and submitted to the LACFCD, USFWS, and CDFW to document the results of the pre-construction survey within 30 days of completion of the survey.

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- C. A no less than 500-foot protective buffer shall be established around a least Bell's vireo or southwestern willow flycatcher territory identified in the field. Project activities including sediment removal, sediment hauling, vehicle traffic, and foot traffic shall not occur within this 500-foot protective buffer. The protective buffer shall be marked with lath and rope, orange snow fencing, or other suitable fencing to provide an adequate buffer from construction work. Signs shall be posted to indicate that the area is an "Environmentally Sensitive Area" and that no work activities shall occur within the fencing. WEAP training shall educate workers on the importance of Environmentally Sensitive Areas. The Biological Monitor shall check the fencing/signage weekly to ensure that it stays in place throughout sediment removal activities and shall notify the LACFCD's Construction Inspector immediately if the fencing/signage needs to be repaired."

Mitigation Measure #2: If the Project or any Project-related activity for the duration of the Project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, the County must seek appropriate take authorization under CESA before commencing Project activities. Appropriate authorization from CDFW may include an Incidental Take Permit (ITP) or a Consistency Determination in certain circumstances, among other options [Fish & G. Code, §§ 2080.1, 2081, subs. (b) and (c)]. Early consultation is encouraged, as significant modification to a Project and Mitigation Measures may be required to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, may require that CDFW issue a separate CEQA document for the issuance of an ITP unless the Project CEQA document addresses all Project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA ITP.

Comment #5: Impacts to Special Status Fish Species

Issue: The following fish species occur within and/or downstream from the Project site: arroyo chub, Santa Ana speckled dace, and Santa Ana sucker. The arroyo chub and Santa Ana speckled dace are both SSC. The Santa Ana sucker is an ESA-listed threatened species.

Specific impacts: Project activities may result in impacts on special status fish species through direct injury or mortality, direct take from pumps, impediment to fish passage, habitat modification, loss or decline of spawning or rearing areas, reduced reproductive capacity, change in stream flow, entrapment in isolated pools due to loss of water surface elevation, increased turbidity, change in pH, change in water temperature, or change in dissolved oxygen.

Why impacts would occur: Project activities include vegetation removal, dewatering, surface water diversion, sediment removal by mechanical excavation, and sediment placement. These Project activities would occur for approximately seven months per year (April to October) for the duration of the Project term not to exceed five years. Dewatering activities in the Reservoir and plunge pool are likely to increase turbidity downstream as fine-grain sediments on the reservoir bottom become resuspended and discharged through dam outlet structures and/or water pumps. Increased turbidity can directly injure and irritate respiratory structures in aquatic organisms and result in mortality. Increased turbidity can also result in the decline or loss of instream vegetation that serves as food and habitat resources for aquatic species. Surface water diversions can potentially increase water temperatures, particularly if diverted flows are

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allowed to stagnate in artificial unshaded pools and/or they are conveyed through black-colored, solar-heated bypass pipelines. Adverse water temperatures can injure and stress sensitive aquatic organisms and result in mortality. High water temperatures can also reduce available dissolved oxygen, a critical resource essential to the survival of these sensitive fish species. The Project also proposes to intentionally halt all-natural stream flow to existing habitat for special status fish (including USFWS-designated Critical Habitat for Santa Ana sucker). The Project could also result in unintentional impoundment of stream flows behind the Dam. These Project activities could result in the loss of wetted stream habitat, degraded of stream habitat quality, degraded water quality, increased physiological stress and/or mortality of aquatic and riparian species, entrapment of fish in isolated pools, and take of special status species.

The Project has proposed Mitigation Measure BIO-4 to mitigate for potential impacts on arroyo chub, Santa Ana speckled dace, and Santa Ana sucker. However, CDFW is concerned that this mitigation measure and other measures proposed in this MND remain inadequate to avoid impacts on these special status species. Project activities include dewatering the plunge pool using pumps. This plunge pool is known to be inhabited by arroyo chub, and Santa Ana speckled dace and Santa Ana sucker also potentially occur there. Mitigation Measure BIO-4 as proposed in this MND could potentially allow these small-bodied fish, juveniles, larvae, or eggs to be drawn into pumps. Mitigation Measure BIO-4 also proposes the installation of water filtration BMPs to convert the existing plunge pool into a temporary sedimentation or desilting basin. However, this proposed concept may not be able to sufficiently prevent discharges with adverse water quality into known special status fish habitat.

Evidence impacts would be significant: A California 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, is extirpated in its primary season or breeding role;
- is listed as ESA-, but not CESA-, 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/or,
- 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 CESA threatened or endangered status (CDFW 2021c).

CEQA provides protection not only for CESA-listed species, but for any species including but not limited to SSC which can be shown to meet the criteria for State listing. These SSC meet the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines, § 15380). Therefore, take of SSC could require a mandatory finding of significance (CEQA Guidelines, § 15065). Inadequate avoidance and mitigation measures will result in the Project continuing to have a substantial adverse direct and cumulative effect, either directly or through habitat

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modifications, on any species identified as a candidate, sensitive, or special status species by CDFW or USFWS.

The Project may result in structures that could be considered very high threats or stressors to fish passage. Per CEQA Guidelines section 15065(a), a project may have a significant effect on biological resources if the project has the potential to substantially reduce the habitat of a fish species or substantially reduce the number or restrict the range of a special status species. Per Fish and Game Code section 5901, it is unlawful to construct or maintain in any stream any device or contrivance that prevents, impedes, or tends to prevent or impede the passing of fish up and downstream. Additionally, per Fish and Game Code section 5936, it is unlawful to willfully destroy, injure, or obstruct any fishway. Lastly, per Fish and Game Code section 5937, the owner of any dam shall allow sufficient water at all times to pass through a fishway, or to keep in good condition any fish that may be planted or exists below the dam.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: CDFW recommends the County avoid all of the following Project activities during the peak spawning season for these special status fish species (March 1 to July 31) including: (1) removal or modification of riparian vegetation; (2) dewatering the reservoir minimum pool; (3) installing and operating the surface water diversion system; (4) sediment removal, and (5) intentionally or unintentionally halting natural stream flows.

Mitigation Measure #2: If the Project activities listed above cannot be avoided during the peak fish spawning season (March 1 to July 31), CDFW recommends the County mitigate for impacts to special status fish species. The County should consult CDFW and USFWS to develop and implement a mitigation plan that addresses long-term habitat enhancement projects in Big Tujunga Creek downstream from Big Tujunga Dam. Examples of suitable habitat enhancement projects include removal of non-native riparian vegetation, removal of non-native wildlife, removal of barriers to fish movement, installation or supplementation of instream cobble and gravel substrate, installation or supplementation of instream woody debris, and removal of trash and homeless encampments.

Mitigation Measure #3: CDFW recommends the County conduct a long-term Downstream Resources Study. This Downstream Resources Study should be designed and conducted to actively monitor for potential changes in the physical and biological functions in Big Tujunga Creek downstream from Big Tujunga Dam. The Downstream Resources Study should begin with a baseline study conducted prior to initiation of Project activities. The same sampling locations should be used for baseline and subsequent monitoring studies. Specific methods, sampling locations, sampling frequency, and monitoring parameters should be approved by CDFW in advance.

Mitigation Measure #4: CDFW recommends the County amend Mitigation Measure BIO-4 to include the following underlined language to offer increased protections to arroyo chub, Santa Ana speckled dace, and Santa Ana sucker:

- B. "A ~~one-visit~~ pre-construction survey for Santa Ana sucker, arroyo chub, and Santa Ana speckled dace shall be conducted by a CDFW-approved qualified Biologist (one holding a 10[a] permit for the Santa Ana sucker) immediately prior to ~~installation of water quality BMPs at the downstream end of~~ initiation of Project activities in the plunge pool.

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[...]

- D. Regardless of whether special status fish species are observed during pre-construction surveys, the combination of water quality BMPs, fish exclusion screening, and/or blocking nets shall be used to exclude special status fish species from entering the work area from downstream. [...]

[...]

- H. A screen with 0.125-inch (3.2-millimeter) mesh shall be used at the inflow of the pump for dewatering the reservoir to prevent non-native animals from spreading from the reservoir to areas below the dam occupied by Santa Ana sucker. All non-native animal species encountered during dewatering of the reservoir shall be permanently removed from the reservoir. Post-project, placement of non-native species shall not be allowed in the reservoir, plunge pool, or Big Tujunga Creek/Wash. The inflow of all pumps dewatering the plunge pool shall be covered with fish exclusion screening. Fish exclusion screening shall meet the following specifications:

I.

- a. Porosity: The screen surface shall have a minimum open area of 27 percent. CDFW recommends the maximum possible open area consistent with the availability of appropriate material, and structural design considerations. The use of open areas less than 40 percent shall include consideration of increasing the screen surface area, to reduce slot velocities, assisting in both fish protection and screen cleaning.
- b. Round Openings: Round openings in the screening shall not exceed 2.38 mm (3/32 in).
- c. Square Openings: Square openings in screening shall not exceed 2.38 mm (3/32 in) measured diagonally.
- d. Slotted Openings: Slotted openings shall not exceed 1.75 mm (0.0689 in).

[...]

- J. A CDFW-approved qualified Biological Monitor (one with experience with special status fish species) shall conduct daily monitoring for stranded aquatic life along the creek during dewatering outside the storm season (April 16 to October 14), any periods with insufficient water flow through the dam, and stream bypass installation. The Biological Monitor shall also conduct weekly monitoring throughout sediment removal activities to ensure that BMPs are in place and no release of sediment is observed downstream of the plunge pool; and to ensure that Santa Ana sucker, arroyo chub, or Santa Ana speckled dace are not stranded as dewatering flows recede. The Biological Monitor shall visually monitor habitat and instream conditions (i.e., no flows, insufficient flow to sustain aquatic life, isolation of pools) and quantitatively monitor water quality (i.e., water temperature, pH, dissolved oxygen, and turbidity levels) at no fewer than three locations on a weekly basis during dewatering and sediment removal activities from the dam to approximately 1.5 mile downstream of the dam. These selected monitoring locations shall be pre-approved by CDFW. If the Biological Monitor observes dead or distressed aquatic life, the Biological Monitor shall immediately notify LACFCD's Construction Inspector that immediate corrective action is required and LACFCD shall immediately notify CDFW and USFWS. If the Biological Monitor notes a change in the condition of downstream habitat that was likely caused by dewatering flows and/or BMPs not functioning effectively to protect water quality, the Biological Monitor shall immediately

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notify the LACFCD's Construction Inspector that immediate corrective action is required. If corrective action has not been taken within 48 hours, the Biological Monitor shall recommend that LACFCD's Construction Inspector suspend construction activities and the Biological Monitor shall report the conditions and necessary corrective actions to the LACFCD, USFWS, and CDFW; work shall remain suspended until the condition is corrected to the satisfaction of the LACFCD, USFWS, and CDFW. If the Biological Monitor observes Santa Ana sucker or other special status species adults, juvenile, or larva stranded in drying pools outside the active channel during dewatering or at any time during construction, he/she shall be authorized to relocate the fish to suitable habitat in the adjacent active channel. The Biological Monitor shall prepare Weekly Monitoring Reports describing construction activities as they pertain to the Santa Ana sucker and Santa Ana sucker Critical Habitat areas; the reports shall be submitted to the LACFCD, USFWS, and CDFW.

- K. The SSFRP shall also include discussion of potential relocation necessary based on natural flow conditions from the dam to 1.5 mile downstream of the dam. If the Biological Monitor notices that water levels in active channel of the creek in this area decrease to shallow conditions or that isolated pools develop as a result of natural rainfall conditions, the Biological Monitor shall notify the LACFCD, USFWS, and CDFW of the conditions so the resource agencies (i.e., USFWS or CDFW) may consider relocating special status fish to suitable habitat or temporarily into captivity to avoid potential mortality. LACFCD shall be responsible for relocating fish and other aquatic species if drying or adverse stream conditions develop as a result of Project activities and/or the presence of Big Tujunga Dam within Big Tujunga Creek. ~~Because this would be a result of weather conditions and not a result of the Project, the LACFCD shall not be responsible for relocating the fish (if needed) but shall cooperate with agency efforts to rescue fish.~~ No relocation shall occur until the USFWS and CDFW have confirmed that relocation shall occur."

Comment #6: Impacts to Coast Range Newt

Issue: Coast range newt could potentially occur within and/or downstream from the Project site. Project activities may impact this sensitive SSC unless specific mitigation measures are implemented.

Specific impacts: Project activities may result in direct injury or mortality (trampling, crushing), reduced reproductive capacity, population declines, or local extirpation of an SSC. Direct take from pumps, habitat modification, loss or decline of spawning or rearing areas, change in stream flow, increased turbidity, change in pH, change in water temperature Also, loss of foraging, breeding, nesting, or nursery habitat for an SSC may occur.

Why impacts would occur: CDFW is concerned that the Project does not propose any mitigation measures to avoid impacts on coast range newt. Coast range newt could potentially occur within the Project area. The Project area offers suitable habitat for this species within Big Tujunga Creek upstream from the Reservoir as well as downstream from the Dam. The California Natural Diversity Database (CNDDB) shows a reported coast range newt occurrence approximately 3.75 kilometers away to the southeast from the dam plunge pool. Project activities include vegetation removal, dewatering, surface water diversion, sediment removal by mechanical excavation, and sediment placement. These Project activities would occur for

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approximately seven months per year (April to October) for the duration of the Project term not to exceed five years. Dewatering activities in the Reservoir and plunge pool are likely to increase turbidity downstream as fine-grain sediments on the reservoir bottom become resuspended and discharged through dam outlet structures and/or water pumps. Increased turbidity can directly injure and irritate respiratory structures in newt larvae and result in mortality. Increased turbidity can also result in the decline or loss of instream vegetation that serves as habitat and spawning substrate for coast range newt. Surface water diversions can potentially increase downstream water temperatures, particularly if diverted flows are allowed to stagnate in artificial unshaded pools and/or they are conveyed through black-colored, solar-heated bypass pipelines. Adverse water temperatures can injure and stress sensitive aquatic organisms and result in mortality. High water temperatures can also reduce available dissolved oxygen, a critical resource essential to the survival of these coast range newt larvae.

Evidence impacts would be significant: CEQA provides protection not only for CESA-listed species, but for any species including but not limited to SSC which can be shown to meet the criteria for State listing. These SSC meet the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines, § 15380). Therefore, take of SSC could require a mandatory finding of significance (CEQA Guidelines, § 15065). Inadequate avoidance and mitigation measures will result in the Project continuing to have a substantial adverse direct and cumulative effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species by CDFW.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: CDFW recommends the County amend Mitigation Measure BIO-8 to include the following underlined language to offer increased protections to coast range newt:

“Prior to the initiation of dewatering/installation of the bypass line each year (March or April, depending on water levels in the reservoir), preconstruction surveys for the two-striped garter snake and coast range newt shall be conducted by a CDFW-approved qualified Biologist (one with experience and the necessary permits to handle ~~this~~ these species). Concurrently with the western pond turtle trapping effort described in MM BIO-6, the Biologist shall also visually search for two-striped garter snakes and coast range newts in the Project impact area. If any two-striped garter snakes or coast range newts are captured, they shall be relocated to a suitable site along Big Tujunga Creek upstream of the construction area or along Big Tujunga Creek downstream of the downstream access road boundary. Prior to relocating any two-striped garter snakes or coast range newts, the LACFCD and CDFW shall approve the potential relocation site(s) and methods for transfer to the relocation sites. Additionally, a qualified Biologist shall be present during dewatering of the plunge pool to ensure no two-striped garter snakes or coast range newts are stranded. If any two-striped garter snakes or coast range newts are observed during the monitoring, they shall be captured by the Biologist and released at the relocation site. A Letter Report shall be prepared to document the results of the preconstruction surveys and monitoring and shall be provided to the LACFCD and CDFW within 30 days of completion of the survey.”

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Comment #7: Impacts to San Gabriel Oak

Issue: The Project does not propose any measures to mitigate for impacts to San Gabriel oak trees (*Quercus durata* var. *gabrielensis*). Additionally, focused surveys for sensitive and rare plant species presented in this MND are outdated.

Specific impacts: CDFW is concerned that the County has not proposed mitigation for Project impacts on San Gabriel oak trees. Project activities may cause direct tree injury or mortality, habitat fragmentation, alteration of soil chemical and physical makeup, increased competition with exotic invasive weeds, and reduced photosynthesis, and reduced reproductive capacity. These impacts would result in native plant population declines or local extirpation of this special status plant species. The cumulative effects of these impacts would be permanent or occur over several years.

Why impact would occur: The MND describes direct impacts on San Gabriel oak with the proposed removal of at least 10 individuals within Maple Canyon SPS. San Gabriel oak has a California Rare Plant Ranking (CRPR; CNPS 2021) of 4.2. This species is considered to be rare because its distribution is limited to a small area within the San Gabriel Mountains and because it is threatened by human development. The Project does not propose any mitigation for impacts on San Gabriel oak. This would result in an ultimate total net loss of oak trees associated with the Project activities.

The MND impact assessment was derived from a focused survey for rare plants conducted in 2016. Impacts to species not previously known or identified to be on the Project site or within its vicinity presently have the possibility to occur due to outdated surveys. The 2016 survey may no longer represent the current state of the species on site. Therefore, Project activities may result in direct mortality, population declines, or local extirpation of sensitive or special status species that were previously unidentified or unknown to exist on site.

Evidence impact would be significant: Impacts to special status plant species should be considered significant under CEQA unless they are clearly mitigated below a level of significance. Inadequate avoidance, minimization, and mitigation measures for impacts to these sensitive plant species will result in the Project continuing to have a substantial adverse direct, indirect, and cumulative 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 CDFW.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: CDFW recommends conducting new focused surveys for sensitive and rare plants occurring within and near the Project site and disclosing the results in the final CEQA document. Based on the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018), a qualified biologist should “conduct botanical surveys in the field at the times of year when plants will be both evident and identifiable. Usually this is during flowering or fruiting.” The final CEQA documentation should provide a thorough discussion on the presence/absence of sensitive plants on-site and identify measures to protect sensitive plant communities from Project-related direct and indirect impacts.

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Mitigation Measure #2: CDFW recommends avoiding all Project impacts on all rare plant species or sensitive natural communities including San Gabriel oak. If avoidance is not feasible, impacts to individual San Gabriel oak trees should be mitigated at a ratio of no less than 3:1. All revegetation/restoration areas that will serve as mitigation should include preparation of a restoration plan, to be approved by CDFW prior to any ground disturbance. The restoration plan should include restoration and monitoring methods; annual success criteria; contingency actions should success criteria not be met; long-term management and maintenance goals; and, a funding mechanism to assure for in perpetuity management and reporting. Areas proposed as mitigation should have a recorded conservation easement and be dedicated to an entity which has been approved to hold/manage lands (AB 1094; Government Code, §§ 65965-65968).

Additional Comments and Recommendations

Comment #8: Impacts to Crotch's Bumble Bee

CDFW recommends the County amend Mitigation Measure BIO-3 to include the following underlined language to minimize impacts to Crotch's bumble bee:

~~"If CDFW determines that listing of the Crotch bumble bee is not warranted prior to implementation of the Project, or during implementation of the Project, this measure shall not be required. If CDFW makes a determination, or if CDFW determines that listing of the Crotch bumble bee is warranted, the following measure shall be required.~~

A pre-construction focused survey for Crotch's bumble bee shall be conducted during the Crotch's bumble bee active period (March to July) prior to the initiation of vegetation removal activities and prior to sediment placement activities each season. Three visual surveys will be conducted by a CDFW-approved qualified Biologist (i.e., one with experience in the identification of bee species). Surveys shall be conducted at least two hours after sunrise and three hours before sunset during suitable weather conditions. Sunny days with temperatures greater than 60 degrees Fahrenheit and wind speeds less than eight mph are optimal, but partially cloudy days or overcast conditions are permissible if a person's shadow is visible. Surveys should not be conducted during wet, foggy, or rainy conditions. Meandering transects shall be walked slowly within the Maple Canyon SPS impact area (disturbance area plus 50 feet) to obtain a 100% survey cover. Transect spacing will depend on the habitat."

Comment #9: Impacts to Nesting Birds

Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (Code of Federal Regulations, Title 50, § 10.13). Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA). It is unlawful to take, possess, or needlessly destroy the nest or eggs of any raptor. CDFW recommends that measures be taken to fully avoid impacts to nesting birds and raptors.

The Project proposes Mitigation Measure BIO-10 to mitigate for potential impacts on nesting birds. CDFW recommends the County amend Mitigation Measure BIO-10 to include the following underlined language to offer increased protections to nesting birds:

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“The following measures shall be followed prior to work within the ~~Reservoir, plunge pool, or stream and in the developed areas of the dam~~ entire Project area.

- A. To the extent possible, vegetation clearing shall be conducted during the non-breeding season (September 1 to January 31) in order to minimize direct impacts on nesting birds. If vegetation clearing would be initiated during the breeding season for nesting birds/raptors (February 1–August 31), the maintenance activity shall be conducted in compliance with the conditions set forth in the Migratory Bird Treaty Act.
- B. In order to avoid direct impacts on active nests, a pre-construction survey shall be conducted by a CDFW-approved qualified Biologist (one with experience conducting nesting bird surveys) for nesting birds and/or raptors within four days prior to clearing of any vegetation or any work near existing structures. The nesting bird survey area shall include a buffer of 300 feet around the work area for nesting birds and a buffer of 500 feet around the work area for nesting raptors. If the Biologist does not find any active nests in or immediately adjacent to the impact area, the vegetation clearing/construction work shall be allowed to proceed. If a cessation of Project activities occurs for 5 or more consecutive days, nesting bird surveys shall be conducted anew.”

CDFW also recommends the County conduct vegetation removal in phases to offer increased protections to nesting birds and other wildlife, as well as better watershed management. If the County intends to begin sediment removal and sediment placement activities by April 2022, CDFW recommends the County fully avoid the bird nesting season and complete the minimal required vegetation removal in the sediment removal area and Maple Canyon SPS before the next nesting bird season begins February 1, 2022.

Filing Fees

The Project, as proposed, could have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying Project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

Conclusion

CDFW appreciates the opportunity to comment on the Project to assist the County in identifying and mitigating potential impacts on biological resources. CDFW requests an opportunity to review and comment on any response that the County has to our comments and to receive notification of any forthcoming hearing date(s) for the Project [CEQA Guidelines; § 15073(e)]. If you have any questions or comments regarding this letter, please contact David T. Lin, Senior Environmental Scientist (Specialist) at David.Lin@wildlife.ca.gov or (562) 619-0509.

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Sincerely,

DocuSigned by:

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Erinn Wilson-Olgin
Environmental Program Manager I
South Coast Region

ec: CDFW

Victoria Tang, Los Alamitos – Victoria.Tang@wildlife.ca.gov
John O'Brien, Los Alamitos – John.Obrien@wildlife.ca.gov
David T. Lin, Los Alamitos – David.Lin@wildlife.ca.gov
Jennifer Pareti, Los Alamitos – Jennifer.Pareti@wildlife.ca.gov
Susan Howell, San Diego – Susan.Howell@wildlife.ca.gov
Cindy Hailey, San Diego – Cindy.Hailey@wildlife.ca.gov
CEQA Program Coordinator, Sacramento – CEQAcommentletters@wildlife.ca.gov
State Clearinghouse, Office of Planning and Research – State.Clearinghouse@opr.ca.gov

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State of California – Natural Resources Agency
 DEPARTMENT OF FISH AND WILDLIFE
 South Coast Region
 3883 Ruffin Road
 San Diego, CA 92123
 (858) 467-4201
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



Attachment A: Draft Mitigation and Monitoring Reporting Plan

CDFW recommends the following language to be incorporated into a future environmental document for the Project.

Biological Resources (BIO)			
	Mitigation Measure (MM) or Recommendation (REC)	Timing	Responsible Party
MM-BIO-1-No-Flow Contingency Plan	The County shall develop a No-Flow Contingency Plan prior to the beginning of Project activities, including dewatering of Big Tujunga Reservoir, in consultation with the appropriate regulatory agencies (e.g., CDFW, U.S. Fish and Wildlife Service, Regional Water Quality Control Board). This contingency plan shall provide detailed guidance and specific protocols for Project personnel to follow in preparation and in response to situations where insufficient water passes through Big Tujunga Dam to downstream resources. To avoid violation of Fish and Game Code section 5937, the County shall include methods for providing sufficient water to pass through Big Tujunga Dam. This plan shall also include monitoring for stream condition, water quality, and stranded or distressed aquatic life downstream from the Project location. Surveys and relocation activities involving affected aquatic life shall adhere to the Special Status Fish Relocation Plan described in Mitigation Measure BIO-4 of this MND. In the absence of a No-Flow Contingency Plan, downstream flows from Big Tujunga Reservoir shall only be halted in emergency situations to prevent downstream flooding.	Prior to and during Project activities	Los Angeles County Flood Control District (LACFCD or County)
MM-BIO-2-No-Flow Contingency Plan	The County shall design and conduct sediment removal within Big Tujunga Reservoir in a manner that avoids or minimizes the likelihood of potential no-flow scenarios.	Prior to and during Project activities	County

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<p>MM-BIO-3- No-Flow Contingency Plan</p>	<p>The County shall design and implement Project activities within the plunge pool in a manner that does not contribute to a no-flow scenario. Sediment removal and the installation of water quality Best Management Practices within the plunge pool shall not impede downstream flows or present a barrier to fish passage.</p>	<p>Prior to and during Project activities</p>	<p>County</p>
<p>MM-BIO-4- Impacts to Water Quality</p>	<p>The County shall implement the following to avoid and/or minimize water quality impacts from pre-dewatering and dewatering activities:</p> <p>After the reservoir water level reaches 2,188 ft above mean sea level (minimum pool elevation) before the start of each sediment removal season or lower in future seasons, reservoir water shall only be discharged downstream if it meets or exceeds the following water quality standards:</p> <ul style="list-style-type: none"> A. Oil and Grease. Waters shall not contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses. B. Dissolved Oxygen. At a minimum, the mean annual dissolved oxygen concentration of all waters shall be greater than 7 mg/L, and no single determination shall be less than 5.0 mg/L, except when natural conditions cause lesser concentrations. The dissolved oxygen content of all surface waters shall not be depressed below 6 mg/L as a result of waste discharges. C. pH. The pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of waste discharge. D. Temperature. Waters with measured temperature exceeding 78 °F (25.5 °C) shall not be discharged downstream. E. Turbidity. Downstream TSS shall be maintained at ambient levels. Where natural turbidity is between 0 and 50 Nephelometric Turbidity Units (NTU), increases shall not exceed 	<p>Prior to and during Project activities</p>	<p>County</p>

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	<p>20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%. Ambient levels shall be measured at a sampling location in Big Tujunga Creek at least 200 feet upstream from the point of diversion.</p> <p>All of the following water quality parameters must be examined within the same calendar day of the intended water discharge: oil and grease, dissolved oxygen, pH, temperature, and turbidity. Reservoir minimum pool (or “dead pool”) water that meets or exceeds water quality standards can be discharged downstream directly to the plunge pool. Plunge pool dewatering discharges must meet or exceed the same water quality standards described above. Water quality measurements for each discharge shall be recorded and provided to CDFW upon request.</p>		
<p>MM-BIO-5- Impacts to Water Quality</p>	<p>I. When the bypass line is in place, water temperature shall be maintained from the inflow to the outflow. The bypass line shall be insulated and/or methods shall be used to decrease the water temperature prior to it re-entering the stream (e.g., submerge, cover, or shade the bypass line; avoiding black or corrugated pipe if not shaded). A temporary trash rack shall be installed upstream of the stream bypass inlet pipe to help mitigate the potential for many types of blockages. This trash rack shall be monitored daily by a CDFW-approved qualified Biological Monitor or Designated Biologist and maintained daily to ensure effective operation for the duration of surface water diversion activities.</p> <p>If a stream diversion is actively diverting surface water, then a CDFW-approved qualified Biological Monitor or Designated Biologist shall monitor water quality at a location upstream from the point of diversion and at the outlet of the diversion. Water quality parameters to be monitored include dissolved oxygen, pH, flow (e.g. cubic feet per second), and water temperature. Water quality monitoring data shall be collected under low flow</p>	<p>Prior to and during Project activities</p>	<p>County</p>

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	<p>conditions when the stream flow is stable at the point of diversion. Dissolved oxygen, pH, flow, and water temperature data shall be collected twice daily at the diversion before entering the conveyance, and at the downstream outlet of the diversion (once within 30 minutes before/after astronomical sunrise and once at 1200 hours of the work day) on Monday, Wednesday, and Friday during each week while stream diversion remains in place. CDFW will be notified of the person conducting the data collection via Email prior to initiating data collection. LACFCD will report stream diversion water quality monitoring data to CDFW on a weekly basis or upon CDFW request. The person collecting data shall be qualified to interpret water quality data and be responsible for interpreting data. CDFW will be notified immediately upon a staff change from the previous notification by LACFCD. LACFCD, LACFCD's designee, and/or CDFW shall determine whether the diversion is causing a substantial adverse impact, and LACFCD will cease operations until corrective measures are implemented. LACFCD shall notify CDFW representatives immediately if dead fish or adverse water quality parameters are observed.</p> <p>If a stream diversion is actively diverting surface water, then a CDFW-approved qualified Biological Monitor or Designated Biologist shall monitor turbidity at a location 200 feet upstream from the point of diversion and at the outlet of the diversion. Turbidity at the outlet of the diversion shall not exceed turbidity levels measured concurrently at a location 200 feet upstream from the point of diversion. Stream turbidity data shall be collected daily by LACFCD or their designee. LACFCD shall report stream diversion turbidity monitoring data to CDFW on a weekly basis. LACFCD, LACFCD's designee, and/or CDFW shall determine whether the diversion is causing a substantial adverse impact, and Permittee will cease operations until corrective measures are implemented. LACFCD shall notify</p>		
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	CDFW representatives immediately if an increase in turbidity is observed.		
MM-BIO-6- Impacts to Water Quality	<p>The County shall implement the following practices to reduce turbidity and other problems of degraded water quality during pre-dewatering releases from Big Tujunga Reservoir (water elevations at or above 2,188 feet above mean sea level):</p> <ol style="list-style-type: none"> 1. Install water quality BMPs over or upstream from all dam outlet structures to reduce turbidity. Examples of appropriate BMPs might include geotextile filter fabric or turbidity curtains. 2. Reduce water releases from Big Tujunga Reservoir to the minimum rate needed to slowly lower the reservoir water elevation or to match natural inflows. If downstream conditions allow, the County shall consider periodically closing dam outlet structures for short intervals to allow the reservoir minimum pool to function as a desilting basin. 3. Install aeration devices to increase dissolved oxygen in the plunge pool prior to pre-dewatering water releases from Big Tujunga Reservoir. 	Prior to and during Project activities	County
MM-BIO-7- Impacts to Water Quality	If the County cannot avoid Project activities during the peak spawning season for special status fish (March 1 to July 31), the County shall expedite installation of the surface water diversion system (“bypass pipe”) as early as possible to limit turbid water discharges from the reservoir minimum pool.	Prior to and during Project activities	County
MM-BIO-8- Impacts to Streams	The County shall notify CDFW pursuant to Fish and Game Code section 1600 <i>et seq.</i> prior to any Project activities including: (1) water releases from Big Tujunga Dam to lower the reservoir water level to an elevation of 2,188 feet above mean sea level; (2) Project vegetation disturbing activities within and near streams at Maple Canyon SPS; (3) “pre-dewatering activities” as described in section 3.1.2 of this MND; and (4) any ground-disturbing activities related to sediment removal in Big Tujunga Reservoir or the plunge pool.	Prior to Project activities	County

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MM-BIO-9- Impacts to Streams	The County shall notify CDFW regarding ongoing routine operational and maintenance activities at Big Tujunga Dam in an effort to approach compliance with State law (Fish & G. Code, §§ 1600 <i>et seq.</i> , 5901, 5937). LSA Notification for dam operations and maintenance shall occur prior to beginning water releases from Big Tujunga Dam to lower the reservoir water level to an elevation of 2,188 feet above mean sea level or other minimum pool elevation.	Prior to Project activities	County
MM-BIO-10- Impacts to Streams	The County shall mitigate for Project impacts to streams and riparian habitat by replacing habitat at no less than 3:1 ratio for all impacts. Mitigation lands shall support streams and riparian habitat of similar vegetation composition, density, coverage, and species richness and abundance.	Prior to Project activities	County
MM-BIO-11- Impacts to Least Bell's Vireo and Southwestern Willow Flycatcher	<p>A. Vegetation clearing of riparian habitat shall be conducted during the non-breeding season (September 16 to March 14) in order to minimize direct impacts on nests of this species. Vegetation clearing of riparian communities shall be monitored by a CDFW-approved qualified Biologist (one with experience monitoring in riparian habitat). No riparian vegetation removal activities shall be conducted from March 15 to September 15.</p> <p>B. Vegetation clearing of riparian habitat shall be conducted during the non-breeding season (September 16 to March 14) in order to minimize direct impacts on nests of this species. Vegetation clearing of riparian communities shall be monitored by a CDFW-approved qualified Biologist (one with experience monitoring in riparian habitat). No riparian vegetation removal activities shall be conducted from March 15 to September 15.</p> <p>C. A 500-foot protective buffer shall be established around a least Bell's vireo or southwestern willow flycatcher territory identified in the field. Project activities including sediment removal, sediment hauling, vehicle traffic, and foot traffic shall not occur within this 500-foot protective buffer. The protective buffer shall be marked with lath and rope, orange snow fencing, or other</p>	Prior to and during Project activities	County

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	<p>suitable fencing to provide an adequate buffer from construction work. Signs shall be posted to indicate that the area is an “Environmentally Sensitive Area” and that no work activities shall occur within the fencing. WEAP training shall educate workers on the importance of Environmentally Sensitive Areas. The Biological Monitor shall check the fencing/signage weekly to ensure that it stays in place throughout sediment removal activities and shall notify the LACFCD’s Construction Inspector immediately if the fencing/signage needs to be repaired.</p>		
<p>MM-BIO-12- Impacts to Least Bell’s Vireo and Southwestern Willow Flycatcher</p>	<p>If the Project or any Project-related activity for the duration of the Project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, the County shall seek appropriate take authorization under CESA before commencing Project activities.</p>	<p>Prior to Project activities</p>	<p>County</p>
<p>MM-BIO-13- Impacts to Special Status Fish Species</p>	<p>The County shall avoid all of the following Project activities during the peak spawning season for these special status fish species (March 1 to July 31) including: (1) removal or modification of riparian vegetation; (2) dewatering the reservoir minimum pool; (3) installing and operating the surface water diversion system; (4) sediment removal, and (5) intentionally or unintentionally halting natural stream flows.</p>	<p>Prior to and during Project activities</p>	<p>County</p>
<p>MM-BIO-14- Impacts to Special Status Fish Species</p>	<p>If the Project activities listed above cannot be avoided during the peak fish spawning season (March 1 to July 31), the County shall mitigate for impacts to special status fish species. The County shall consult CDFW and USFWS to develop and implement a mitigation plan that addresses long-term habitat enhancement projects in Big Tujunga Creek downstream from Big Tujunga Dam.</p>	<p>Prior to and during Project activities</p>	<p>County</p>
<p>MM-BIO-15- Impacts to Special Status Fish Species</p>	<p>The County shall conduct a long-term Downstream Resources Study. This Downstream Resources Study shall be designed and conducted to actively monitor for potential changes in the physical and biological functions in Big Tujunga Creek downstream from Big Tujunga Dam. The Downstream Resources Study shall begin with a baseline study conducted prior to initiation of Project activities. The same sampling</p>	<p>Prior to and during Project activities</p>	<p>County</p>

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	<p>locations shall be used for baseline and subsequent monitoring studies. Specific methods sampling locations, sampling frequency, and monitoring parameters shall be approved by CDFW in advance.</p>		
<p>MM-BIO-16- Impacts to Special Status Fish Species</p>	<p>[...] B. A pre-construction survey for Santa Ana sucker, arroyo chub, and Santa Ana speckled dace shall be conducted by a CDFW-approved qualified Biologist (one holding a 10[a] permit for the Santa Ana sucker) immediately prior to initiation of Project activities in the plunge pool.</p> <p>[...] D. Regardless of whether special status fish species are observed during pre-construction surveys, the combination of water quality BMPs, fish exclusion screening, and blocking nets shall be used to exclude special status fish species from entering the work area from downstream. The design of the exclusion and method of installation shall be included in the SSFRP and approved by the LACFCD, USFWS, and CDFW. Blocking nets and water quality BMPs shall be installed under the supervision of a Biological Monitor in order to ensure that no special status fish species are impacted during installation of the exclusion measures.</p> <p>[...] H. A screen with 0.125-inch (3.2-millimeter) mesh shall be used at the inflow of the pump for dewatering the reservoir to prevent non-native animals from spreading from the reservoir to areas below the dam occupied by Santa Ana sucker. All non-native animal species encountered during dewatering of the reservoir shall be permanently removed from the reservoir. Post-project, placement of non-native species shall not be allowed in the reservoir, plunge pool, or Big Tujunga Creek/Wash. The inflow of all pumps dewatering the plunge pool shall be covered with fish exclusion screening. Fish exclusion screening shall meet the following specifications: a. Porosity: The screen surface shall have a minimum open</p>	<p>Prior to and during Project activities</p>	<p>County</p>

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	<p>area of 27 percent. CDFW recommends the maximum possible open area consistent with the availability of appropriate material, and structural design considerations. The use of open areas less than 40 percent shall include consideration of increasing the screen surface area, to reduce slot velocities, assisting in both fish protection and screen cleaning.</p> <ul style="list-style-type: none">b. Round Openings: Round openings in the screening shall not exceed 2.38 mm (3/32 in).c. Square Openings: Square openings in screening shall not exceed 2.38 mm (3/32 in) measured diagonally.d. Slotted Openings: Slotted openings shall not exceed 1.75 mm (0.0689 in). <p>[...]</p> <p>J. A CDFW-approved qualified Biological Monitor (one with experience with special status fish species) shall conduct daily monitoring for stranded aquatic life along the creek during dewatering outside the storm season (April 16 to October 14), any periods with insufficient water flow through the dam, and stream bypass installation. The Biological Monitor shall also conduct weekly monitoring throughout sediment removal activities to ensure that BMPs are in place and no release of sediment is observed downstream of the plunge pool; and to ensure that Santa Ana sucker, arroyo chub, or Santa Ana speckled dace are not stranded as dewatering flows recede. The Biological Monitor shall visually monitor habitat and instream conditions (i.e., no flows, insufficient flow to sustain aquatic life, isolation of pools) and quantitatively monitor water quality (i.e., water temperature, pH, dissolved oxygen, and turbidity levels) at no fewer than three locations on a weekly basis during dewatering and sediment removal activities downstream of the dam. These selected monitoring locations shall be pre-approved by CDFW. If the Biological Monitor observes dead or distressed aquatic life, the Biological Monitor</p>		
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	<p>shall immediately notify LACFCD's Construction Inspector that immediate corrective action is required and LACFCD shall immediately notify CDFW and USFWS. If the Biological Monitor notes a change in the condition of downstream habitat that was likely caused by dewatering flows and/or BMPs not functioning effectively to protect water quality, the Biological Monitor shall immediately notify the LACFCD's Construction Inspector that immediate corrective action is required. If corrective action has not been taken within 48 hours, the Biological Monitor shall recommend that LACFCD's Construction Inspector suspend construction activities and the Biological Monitor shall report the conditions and necessary corrective actions to the LACFCD, USFWS, and CDFW; work shall remain suspended until the condition is corrected to the satisfaction of the LACFCD, USFWS, and CDFW. If the Biological Monitor observes Santa Ana sucker or other special status species adults, juvenile, or larva stranded in drying pools outside the active channel during dewatering or at any time during construction, he/she shall be authorized to relocate the fish to suitable habitat in the adjacent active channel. The Biological Monitor shall prepare Weekly Monitoring Reports describing construction activities as they pertain to the Santa Ana sucker and Santa Ana sucker Critical Habitat areas; the reports shall be submitted to the LACFCD, USFWS, and CDFW.</p> <p>K. The SSFRP shall also include discussion of potential relocation necessary based on natural flow conditions from the dam to 1.5 mile downstream of the dam. If the Biological Monitor notices that water levels in active channel of the creek in this area decrease to shallow conditions or that isolated pools develop as a result of natural rainfall conditions, the Biological Monitor shall notify the LACFCD, USFWS, and CDFW of the conditions so the resource agencies (i.e., USFWS or CDFW) may consider relocating special status fish to suitable habitat or temporarily</p>		
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	<p>into captivity to avoid potential mortality. LACFCD shall be responsible for relocating fish and other aquatic species if drying or adverse stream conditions develop as a result of Project activities and/or the presence of Big Tujunga Dam within Big Tujunga Creek. No relocation shall occur until the USFWS and CDFW have confirmed that relocation shall occur.</p>		
<p>MM-BIO-17- Impacts to Coast Range Newt</p>	<p>Prior to the initiation of dewatering/installation of the bypass line each year (March or April, depending on water levels in the reservoir), preconstruction surveys for the two-striped garter snake and coast range newt shall be conducted by a CDFW-approved qualified Biologist (one with experience and the necessary permits to handle these species). Concurrently with the western pond turtle trapping effort described in MM BIO-6, the Biologist shall also visually search for two-striped garter snakes and coast range newts in the Project impact area. If any two-striped garter snakes or coast range newts are captured, they shall be relocated to a suitable site along Big Tujunga Creek upstream of the construction area or along Big Tujunga Creek downstream of the downstream access road boundary. Prior to relocating any two-striped garter snakes or coast range newts, the LACFCD and CDFW shall approve the potential relocation site(s) and methods for transfer to the relocation sites. Additionally, a qualified Biologist shall be present during dewatering of the plunge pool to ensure no two-striped garter snakes or coast range newts are stranded. If any two-striped garter snakes or coast range newts are observed during the monitoring, they shall be captured by the Biologist and released at the relocation site. A Letter Report shall be prepared to document the results of the pre-construction surveys and monitoring and shall be provided to the LACFCD and CDFW within 30 days of completion of the survey.</p>	<p>Prior to and during Project activities</p>	<p>County</p>
<p>MM-BIO-18- Impacts to San Gabriel Oak</p>	<p>The County shall retain a qualified botanist with experience surveying for southern California rare plants. A qualified botanist shall conduct a rare plant survey for at least two survey seasons at the appropriate time of year prior to any Project-related vegetation removal or ground disturbance where there is suitable habitat for rare plants. Surveys shall</p>	<p>Prior to Project activities</p>	<p>County</p>

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	<p>be performed according to CDFW's <i>Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities</i>. The qualified biologist shall prepare a report to LACFCD, CDFW, and USFWS (if applicable), for review. At a minimum, the survey report shall provide the following information:</p> <ol style="list-style-type: none"> A description and map of the survey areas. The map will show surveyor(s) track lines to document that the entire site was covered during field surveys. Field survey conditions that shall include name(s) of qualified botanists(s) and brief qualifications; date and time of survey; survey duration; general weather conditions; survey goals, and species searched. If rare plants are detected, maps(s) will be provided showing the location of individual plants or populations, and number of plants or density of plants per square feet occurring at each location. A description of physical (e.g., soil, moisture, slope) and biological (e.g., plant composition) conditions where each rare plant or population is found. A sufficient description of biological conditions, shall include native plant composition (e.g., density, cover, and abundance) within impacted habitat. 		
MM-BIO-19- Impacts to San Gabriel Oak	<p>The County shall avoid all Project impacts on all rare plant species or sensitive natural communities including San Gabriel oak. If avoidance is not feasible, impacts to individual San Gabriel oak trees shall be mitigated at a ratio of no less than 3:1. All revegetation/restoration areas that will serve as mitigation shall include preparation of a restoration plan, to be approved by CDFW prior to any ground disturbance.</p>	Prior to and during Project activities	County
MM-BIO-20- Impacts to Crotch's Bumble Bee	<p>A pre-construction focused survey for Crotch's bumble bee shall be conducted during the Crotch's bumble bee active period (March to July) prior to the initiation of vegetation removal activities and prior to sediment placement activities each season. Three visual surveys will be conducted by a CDFW-approved qualified Biologist (i.e., one with experience in the identification of bee species). Surveys shall be conducted at least two hours after sunrise and three hours before</p>	Prior to Project activities	County

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	<p>sunset during suitable weather conditions. Sunny days with temperatures greater than 60 degrees Fahrenheit and wind speeds less than eight mph are optimal, but partially cloudy days or overcast conditions are permissible if a person’s shadow is visible. Surveys shall not be conducted during wet, foggy, or rainy conditions. Meandering transects shall be walked slowly within the Maple Canyon SPS impact area (disturbance area plus 50 feet) to obtain a 100% survey cover. Transect spacing will depend on the habitat.</p>		
<p>MM-BIO-21- Impacts to Nesting Birds</p>	<p>The following measures shall be followed prior to work within the entire Project area.</p> <ul style="list-style-type: none"> A. To the extent possible, vegetation clearing shall be conducted during the non-breeding season (September 1 to January 31) in order to minimize direct impacts on nesting birds. If vegetation clearing would be initiated during the breeding season for nesting birds/raptors (February 1–August 31), the maintenance activity shall be conducted in compliance with the conditions set forth in the Migratory Bird Treaty Act. B. In order to avoid direct impacts on active nests, a pre-construction survey shall be conducted by a CDFW-approved qualified Biologist (one with experience conducting nesting bird surveys) for nesting birds and/or raptors within four days prior to clearing of any vegetation or any work near existing structures. The nesting bird survey area shall include a buffer of 300 feet around the work area for nesting birds and a buffer of 500 feet around the work area for nesting raptors. If the Biologist does not find any active nests in or immediately adjacent to the impact area, the vegetation clearing/construction work shall be allowed to proceed. If a cessation of Project activities occurs for 5 or more consecutive days, nesting bird surveys shall be conducted anew. 	<p>Prior to and during Project activities</p>	<p>County</p>

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MM-BIO-22- Impacts to Nesting Birds	The County shall conduct vegetation removal in phases to offer increased protections to nesting birds and other wildlife, as well as better watershed management. If the County intends to begin sediment removal and sediment placement activities by April 2022, the County shall fully avoid the bird nesting season and complete the minimal required vegetation removal in the sediment removal area and Maple Canyon SPS before the next nesting bird season begins February 1, 2022.	Prior to and during Project activities	County
REC-BIO-1- Impacts to Streams	<p>To minimize additional requirements by CDFW pursuant to Fish and Game Code section 1600 <i>et seq.</i> and/or under CEQA, the CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring, and reporting commitments for issuance of the LSA Agreement.</p> <p>Any LSA Agreement issued for the Project by CDFW may include additional measures protective of streambeds on and downstream of the Project site. The LSA Agreement may include further erosion and pollution control measures. To compensate for any on- and off-site impacts to riparian resources, additional mitigation conditioned in any LSA Agreement may include the following: avoidance of resources, on- or off-site habitat creation, enhancement or restoration, and/or protection, and management of mitigation lands in perpetuity.</p>	Prior to Project activities	County
REC-BIO-2- Impacts to Streams	Per Fish and Game Code section 5901, it is unlawful to construct or maintain in any stream any device or contrivance the prevents, impedes, or tends to prevent or impeded, the passing of fish up and downstream. Accordingly, the County should coordinate with CDFW prior to implementing the Project so CDFW may determine if the Project would be in violation of Fish and Game Code section 5901.	Prior to Project activities	County