



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
2825 Cordelia Road, Suite 100
Fairfield, CA 94534
(707) 428-2002
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



February 4, 2020

Governor's Office of Planning & Research

FEB 04 2020

STATE CLEARINGHOUSE

Mr. Michael Martin
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
MichaelMartin@valleywater.org

Subject: Almaden Lake Improvement Project, Draft Environmental Impact Report,
SCH #2014042040, Santa Clara County

Dear Mr. Martin:

The California Department of Fish and Wildlife (CDFW) received a Notice of Availability of a Draft Environmental Impact Report (EIR) from the Santa Clara Valley Water District (Valley Water) for the Almaden Lake Improvement Project (Project) on December 18, 2019 pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.; hereafter CEQA; Cal. Code Regs., § 15000 et seq.; hereafter CEQA Guidelines).

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that are within CDFW's area of expertise and relevant to its statutory responsibilities (Fish and Game Code, § 1802), and/or which are required to be approved by CDFW (CEQA Guidelines, §§ 15086, 15096 and 15204). We appreciate Valley Water extending the deadline for submitting comments on the draft EIR to February 4, 2020 (per email dated January 23, 2020).

CDFW ROLE

CDFW is a Trustee Agency with responsibility pursuant to CEQA for commenting on projects that could directly or indirectly impact biological resources. CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (i.e., biological resources). As a Trustee Agency, CDFW is responsible for providing, as available, biological expertise to review and comment upon environmental documents and impacts arising from project activities (CEQA Guidelines, § 15386; Fish and Game Code, § 1802).

CDFW is also considered a Responsible Agency if a project would require discretionary approval, such as permits issued under the California Endangered Species Act (CESA), the Native Plant Protection Act, the Lake and Streambed Alteration (LSA) Program, and other provisions of the Fish and Game Code that afford protection to the State's fish and wildlife trust resources. CDFW will act as a Responsible Agency because it anticipates issuing an LSA Agreement for Project activities that impact a stream (Fish and Game Code, §§ 1600 – 1616), specifically Alamitos Creek, Guadalupe Creek, and Guadalupe River. CDFW may also act as a Responsible Agency in issuing a CESA Incidental Take Permit (ITP) if Project activities result in

"take" of any species listed as candidate, threatened, or endangered pursuant to CESA (Fish and Game Code, § 2050 et seq.).

PROJECT DESCRIPTION

Background: Almaden Lake was created by gravel quarry operations, circa late 1940s to 1960. The off-stream quarry operation was located along the east side of Alamos Creek and was comprised of two main large pits. After the gravel quarry operations ceased, heavy storm events eroded the levee that separated the creek from the quarry, resulting in discharge of creek waters into the former quarry area, creating Almaden Lake. Almaden Lake Park (Park) was developed through a partnership with the City of San Jose and Valley Water in the late 1970s. The 65-acre recreational Park includes the 32-acre Almaden Lake. However, due to historic mining activities upstream of Almaden Lake and the lake's deep bathymetry, mercury-laden sediment has become trapped in the lake, resulting in considerable buildup of mercury. Driven by anoxic conditions at the lake bottom, microbial buildup of mercury has resulted in high levels of methylmercury in water and fish. Almaden Lake is also subject to other water quality issues, including high temperature, high bacterial count, toxic algal blooms, and low dissolved oxygen.

Objective: Valley Water seeks to restore Alamos Creek's function within the footprint of the Park in order to improve physical habitat for steelhead and other anadromous fish, while improving water quality within Almaden Lake, and minimizing impacts to existing recreational features within the Park.

Specific objectives of the draft EIR are as follows:

- Separate Alamos Creek from Almaden Lake
- Reduce production of methylmercury and mercury in fish in Almaden Lake to meet applicable water quality objectives
- Remove potential lake entrainment and impacts to predatory fish to cold-water fish
- Improve temperature conditions for native fish
- Minimize impacts to existing recreation features

The objectives would be achieved by constructing a levee to separate Alamos Creek from Almaden Lake, re-contouring the remaining lake bottom and capping it with clean clay fill, continuing to implement measures to manage and reduce future methylmercury production, establishing native vegetation, connecting the lake via pipeline to an imported water supply from the nearby Almaden Valley Pipeline, adding a pipeline connection between the lake and the Los Alamos Percolation Pond, expanding the Park area into a small portion of the existing lake at the beach area, and stabilizing the existing island and construction a new additional island.

Location: The Project area includes the entirety of Almaden Lake and proposed pipeline corridors connecting Almaden Lake to the Almaden Valley Pipeline (upstream) and Los Alamos Percolation Pond (downstream), as well as the southwestern portion of Almaden Lake Park for temporary staging areas. Almaden Lake Park is located within the southern portion of the City of San Jose, Santa Clara County. Almaden Lake and Alamos Creek are within the

Guadalupe River Watershed and are tributaries of the Guadalupe River, which begins at the confluence of Guadalupe Creek and Alamitos Creek. Latitude: 37.240565, Longitude: -121.871467.

COMMENTS AND RECOMMENDATIONS

CDFW offers the below comments and recommendations to assist Valley Water in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. These comments and recommendations are based on the requirement for the environmental document to include the following information:

Project Description and Environmental Setting

Comment 1: Alamitos Creek and Almaden Lake Separation

The draft EIR states that the preferred alternative project would create a new 17-acre Almaden Lake capped with a clay liner to contain existing mercury laden sediments and would be fed by imported water from the Almaden Valley Pipeline (AVP). The lake would be a flow through system and would typically circulate 5 to 7.5 cubic feet per second (cfs) before being pumped to Los Alamitos Percolation Pond (Pond) for recharge operations or alternatively discharged to Alamitos Creek. The Project would restore 1,800 linear feet of Alamitos Creek, and create 11 acres of floodplain along the new stream channel. Alamitos flashboard dam would continue to impound 200 feet of the restored channel when operated.

Important details regarding future operations of the new lake facilities are not adequately described in the Project Description. CDFW recommends that additional information be provided and further assessment in Chapter 3 Environmental Setting, Impacts, and Mitigation be included. Key information that should be further described include water supply reliability to the new lake, frequency in which water from the new lake will be discharged to Alamitos Creek, and whether discharge will impact stream temperatures or seed stream with non-native predatory fish. Furthermore, the EIR should include an analysis of the continued operation of the Alamitos flashboard dam and how the operation is anticipated to affect steelhead and other native fish after the separation of Almaden Lake from Alamitos Creek. This assessment should include, but not be limited to, potential impacts to temperature, fish passage, and predation.

Comment 2: Flow Through System from AVP to Almaden Lake to Alamitos Percolation Pond

As previously mentioned, the preferred alternative would include a flow through system through Almaden Lake. The draft EIR states that horizontal directional drilling will occur to install a pipeline under Guadalupe Creek in order to pump water from the lake to the Pond. Impacts from this method were not clearly described in Chapter 3. This activity has the potential for "frac-out" (release of drilling fluid) into the creek, which would cause direct impacts to biological resources. The EIR should include a requirement for preparation of a frac-out plan, which would address all potential biological impacts and include a contingency plan with avoidance, minimization and mitigation measures in the event that a frac-out occurs.

For the pipeline that will connect the AVP to the lake, CDFW recommends that the EIR include a more complete description of this system. The draft EIR states that water will be gravity fed into the lake, but it is unclear whether flow of water will be controlled from the AVP to this new pipeline.

Comment 3: Fish Relocation

The draft EIR states that fish relocation would occur by using an electrofishing boat, backpack electrofishing, and seines. CDFW recommends that as many native fish as feasible be captured and relocated. If steelhead smolts or steelhead kelts are captured during the relocation effort, CDFW recommends placing them downstream in the Guadalupe River so they can migrate to San Francisco Bay. It may be preferable to put other species of native fish downstream as well, while steelhead parr and resident trout should be relocated upstream of the Project area. CDFW staff is available for coordination on the fish relocation plan prior to finalization of the EIR.

Comment 4: Project Phases and Dewatering

The draft EIR does not adequately describe all construction phases of the preferred alternative. Pages 2-37 and 2-38 state that dewatering of Alamos Creek and the existing Almaden Lake would occur between June 1 and October 15 by installing a series of sheet piles along the future levee site to prevent creek flow from entering Almaden Lake. A cofferdam and pumps would also be installed to divert water around the work area and would be discharged to Alamos Creek downstream of the lake. Additional pumps would then be used to drain isolated ponded water from the existing lake. Page 2-44 states that the configuration of the new lake and island will occur in the first summer of construction, while construction of the new creek channel and floodplain would occur in the second year of construction. It is unclear how volitional passage of fish will occur through the Project site during the winter between construction in years 1 and 2. It is also unclear whether sheet pile walls are required and whether it would be less impactful to dewater the Project area as a whole. CDFW recommends that the EIR include additional information and a more detailed dewatering plan to address the comments above. The dewatering plan should also include a figure showing where cofferdams, pipelines, baker tanks, and other structures or equipment will be placed for the diversion. The EIR should also provide a more thorough description of Project sequencing; Table 2-2 should be revised to indicate time windows by month and year for each phase of the Project.

Comment 5: Alamos Creek Channel Restoration

An objective of the Project is to build a new Alamos Creek channel and floodplain system in stable equilibrium. Page 2-46 states that with the preferred alternative Valley Water anticipates stream maintenance will be necessary, including removal of 5,000 cubic yards of sediment from the reconstructed floodplain and channel on a 10-year recurrence interval. CDFW believes that a channel requiring this level of maintenance is unlikely to provide the benefits stated in the draft EIR. With a new 11-acre floodplain, CDFW recommends that Valley Water strive to design a system capable of containing the 100-year flow and that will also allow for anticipated levels of sediment flux and aggradation. A detailed hydraulic model for the Project should be developed

that is capable of reasonably predicting sediment dynamics that will be observed in the restored stream channel and floodplain.

As part of the restoration objective of this Project, CDFW recommends that Valley Water consider inclusion of specific features that will improve habitat conditions for steelhead, such as large woody debris structures, and construction of secondary channels which are important habitats utilized by juvenile salmon and steelhead. San Francisco Estuary Institute's technical memorandum on *Historical Vegetation and Drainage Patterns in Western Santa Clara Valley* (Beller et al. 2010) is an important resource that should be considered to inform design concepts. CDFW recommends that the Project design team begin coordinating at each stage of design with CDFW staff and the National Marine Fisheries Service. We strongly believe that the design and implementation of projects of this scale are greatly facilitated when an iterative process is established that includes close coordination between scientists and engineers at the resource agencies and an experienced multi-disciplinary project design team.

Comment 6: Levee Construction

The draft EIR states that a levee would be constructed to separate the lake from the creek. The levee would be constructed using clean fill along with cement deep soil mixing (CDSM) at the base of the levee for reinforcement. The draft EIR also states that there is potential for California ground squirrel (*Otospermophilus beecheyi*) to occur within the Project area. Considering that levee maintenance typically includes fossorial mammal control to eliminate burrows as well as other maintenance activities that could result in potential impacts to biological resources, and sediment run-off into the stream, CDFW recommends that the draft EIR consider other options to construction of an earthen levee or further discuss how potential impacts to biological resources could be reduced from future maintenance activities.

Comment 7: Water Quality Monitoring

The draft EIR states that the preferred alternative would address and improve water quality such as methyl mercury accumulation within Almaden Lake, but it is unclear if or how improvements would occur downstream. The Project area of the preferred alternative encompasses Almaden Lake Park, a section of Alamos Creek adjacent to the park, and a portion of Guadalupe Creek and the Los Alamos Percolation Pond (part of the Alamos diversion dam facility). Water quality monitoring should extend to the Alamos flashboard dam, considering that it is closely linked to the preferred alternative and existing conditions at the dam may be similar to the lake. CDFW therefore recommends that the EIR include water quality monitoring not just within Almaden Lake but within Alamos Creek and Guadalupe River (at the Alamos diversion dam) as well.

Comment 8: Tree Removal and Impacts

The draft EIR states that 81 trees will be removed during Project construction under the preferred alternative and that a small portion of them occur within riparian habitat. CDFW recommends that a figure be included showing the location of the trees in relation to habitat

types. Additionally, the EIR should include an impacts table that identifies impacts specific to habitat types not just Project features (Table 3.D-2).

Comment 9: Nesting Bird and Roosting Bat Impacts, and Best Management Practices

As part of the preferred alternative, the draft EIR states that the existing island in the lake, which is nesting bird habitat for a number of species (e.g., herons and egrets), will be expanded. Part of the activities for the expansion include excavation, which could result in significant disturbance to nesting birds if conducted during the nesting bird season. The EIR should fully address how construction-related work will avoid take of nesting birds (pursuant to Fish and Game Code section 3503 and 3503.5). The EIR should also include more detailed information on the potential direct and indirect impacts to nesting, roosting, denning, perching, foraging and other habitat types for wildlife species that occur on the islands, including birds and bats. Furthermore, the EIR should describe potential impacts of dewatering the lake and interrupted feeding to bird species using this area, as well as impacts to other wildlife species dependent on the aquatic habitat. CDFW recommends that the EIR include effective avoidance, and minimization measures and compensatory mitigation for all impacts of the Project to nesting birds and other wildlife that cannot be completely avoided.

Table S-2 and within Chapter 3 describe the nesting bird season from February 1 to August 31. CDFW recommends that this information be updated to the timeframe of January 15 to September 1. Additionally, nesting bird surveys for passerines should include two surveys (Draft EIR states only one survey will be conducted). The first to be conducted at least within 7 days prior to the beginning of Project related activities, and an additional survey conducted within 48 hours prior to the start of Project related activities. If there is a lapse of 7 days (not 10 days) or longer in Project related activities, another focused survey should be conducted. Additional surveys for raptors may be necessary especially surveys earlier in the nesting season to document early signs of nesting when raptors are more conspicuous.

Comment 10: 30% Design Plans

CDFW appreciates that Valley Water submitted the 30% design plans for the preferred alternative project on January 29, 2020. At this time, we have not had a chance to review these plans in their entirety but will in the near future, and we look forward to coordinating and discussing these designs in further detail with Valley Water. At this time, CDFW recommends that clarification be provided and additional information be included in the EIR. The longitudinal profile provided indicates that when the flashboards are raised at the Alamitos flashboard dam, the water surface can be impounded to a maximum elevation of 192 feet, and a footnote on the profile indicates the water surface is typically maintained at 188 feet. Please provide further details and clarification on typical water surface level during operation of the dam. The draft EIR currently states that with the preferred alternative, only 200 feet of the restored channel would be impacted by operation of the flashboard dam. However, if water is impounded above 188 feet, a much greater length of the restored channel versus what is indicated in the draft EIR would be backwatered by the dam.

Alternatives

Comment 11: Option 8

Table 4-3 in Chapter 4 of the draft EIR lists 11 alternatives that were considered but rejected from consideration as viable alternatives for the Project. One of the alternatives that was rejected was Option 8. This alternative would consist of stream restoration that would be extended an additional 1,700 feet downstream of Coleman Road (approximately 3,500 linear feet total) compared to the preferred alternative. Alamitos Creek and the Guadalupe River would be restored to a more natural channel gradient by removing the Alamitos flashboard dam and replacing it with an alternative water diversion system. The draft EIR states that the reasons for rejecting Option 8 were for the following: it would not reduce the significant environmental impacts of the Project; it would be beyond the scope and budget provided by Valley Water's Board; it could lead to downstream loss of potentially jurisdictional waters of the U.S.; and there is uncertainty of the feasibility of an alternate diversion system. The environmental impacts described for Option 8 are related to construction activities; however, the draft EIR does not fully address and acknowledge the overall and long-term benefit of a reach-wide project versus a site-specific project.

CDFW believes that implementation of Option 8 would provide substantial environmental benefits greater than the preferred alternative analyzed in the draft EIR. These environmental benefits include:

- Restoration of a larger segment of Alamitos Creek and Guadalupe River and associated riparian areas and floodplain ecosystem. Conditions would greatly improve habitat for Central California Coast (CCC) steelhead trout (*Oncorhynchus mykiss*) and other native fish.
- Removal of the Alamitos flashboard dam would restore 1,700 feet of stream channel that currently becomes impounded when weir panels are raised. Similar to Almaden Lake, the impoundment created by the flashboard dam warms and impairs downstream water and provides habitat suitable for non-native predatory fish. This negatively impacts steelhead and other native fish. Removal of the flashboard dam would further improve conditions for steelhead and other native fish by improving water temperatures and reducing non-native predatory fish populations in the Project vicinity.
- Fish passage improvements with removal of the Alamitos flashboard dam. The Alamitos flashboard dam, despite having a fish ladder, negatively impacts fish passage. Passage through the reach with the flashboard dam is presumably most problematic for steelhead smolts due to the slack water, lack of cover in the channel, abundance of non-native predatory fish, and impaired temperature conditions that result from the operation of the flashboard dam. Also, during high flow conditions when the flashboards are typically removed, downstream migrating smolts and steelhead kelts are likely to pass the flashboard dam via spill over the dam face and energy dissipation structure at the base of the dam and not through the fish ladder. This could cause injury or mortality to migrating fish. A natural stream channel in this corridor would improve passage conditions for steelhead and other native fish in the watershed.

- Restoration of sediment transport and reduction of aggradation. The Alamitos flashboard dam impairs sediment movement in the Guadalupe River. Removing the flashboard dam would reduce aggradation in the reach upstream and restore sediment transport downstream which would enhance stream habitat conditions for native fish. This would also alleviate the need for channel maintenance and sediment removal periodically performed by Valley Water upstream of the existing flashboard dam to maintain stream channel capacity and conveyance.
- Valley Water would no longer have to maintain Alamitos flashboard dam and fishway. Valley Water would potentially be able to divert water more frequently from the Guadalupe River, since diversion could be operated during a wider period in the calendar year. Currently the flashboards at this facility are removed in the winter and diversion ceases since operation is a flood hazard during higher flows.

Taking into account these benefits, CDFW believes that Option 8, when weighed against alternatives considered in the draft EIR, is the environmentally superior alternative. Valley Water's reasons to reject Option 8 may be valid, but further evaluation is needed. With Option 8, the existing impoundment behind the flashboard dam would be restored to a more natural stream channel and floodplain ecosystem as mentioned previously.

Furthermore, although there may be uncertainty in the feasibility of an alternate diversion system, Valley Water may not have fully considered an alternate diversion system. Table 4-3 of the draft EIR lists a pumping station and fish screens as an alternative water diversion mechanism to divert water to Alamitos and Guadalupe recharge ponds. A gravity fed infiltration gallery may also be a feasible, cost effective and an environmentally superior mechanism capable of supplying diverted water to these recharge facilities. Option 8 could also be constructed in a two-phase approach, if needed. In the first phase, Alamitos Creek would be separated from Almaden Lake, and in the second phase, the profile of the stream channel and floodplain would be constructed to tie-in with removal of the Alamitos flashboard dam along with re-grading the channel profile in this section. CDFW is available to assist Valley Water in developing Option 8.

CDFW strongly recommends that Valley Water reconsider Option 8 as the preferred alternative for this Project. We recognize that this would cause a significant delay in implementing the Project with additional planning and potentially additional costs. The current preferred alternative would also benefit steelhead trout and other native fish as well as other biological resources, but restoring the entire Alamitos flashboard dam and Almaden Lake reach to a more natural riverine channel and floodplain ecosystem with restored sediment transport, would provide a much more substantial ecological benefit.

REGULATORY REQUIREMENTS

California Endangered Species Act

Please be advised that a CESA ITP must be obtained if the Project has the potential to result in "take" of plants or animals listed under CESA, either during construction or over the life of the Project. Issuance of a CESA ITP is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the

Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA ITP. For more information on CESA and the ITP application process, please visit our website at: <http://www.wildlife.ca.gov/Conservation/CESA>.

CEQA requires a Mandatory Finding of Significance if a project is likely to substantially restrict the range or reduce the population of a threatened or endangered species. (Pub. Resources Code, §§ 21001, subd. (c), 21083; CEQA Guidelines, §§ 15380, 15064, and 15065). Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration (FOC). The CEQA Lead Agency's FOC does not eliminate the Project proponent's obligation to comply with CESA.

Lake and Streambed Alteration

CDFW requires an LSA Notification, pursuant to Fish and Game Code section 1600 et. seq., for Project activities affecting lakes or streams and associated riparian habitat. Notification is required for any activity that may substantially divert or obstruct the natural flow; change or use material from the bed, channel, or bank including associated riparian or wetland resources; or deposit or dispose of material where it may pass into a river, lake or stream. Work within ephemeral streams, washes, watercourses with a subsurface flow, and floodplains are subject to notification requirements. CDFW will consider the CEQA document for the Project for issuance of the LSA Agreement. CDFW may not execute the final LSA Agreement (or ITP) until it has complied with CEQA as a Responsible Agency. CDFW recommends that Valley Water submit an LSA Notification when 60% design plans for the Project are prepared as well as encourages early consultation when 30% design plans are available.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. [Pub. Resources Code, § 21003, subd. (e)]. Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be submitted online or emailed to CNDDDB at the following email address: cnddb@wildlife.ca.gov. The types of information reported to CNDDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary (Fish and Game Code, § 711.4; Pub. Resources Code, § 21089). 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.

Mr. Michael Martin
Santa Clara Valley Water District
February 4, 2020
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CONCLUSION AND FUTURE COORDINATION

CDFW appreciates the opportunity to comment on the draft EIR to assist Valley Water in identifying and mitigating Project impacts on biological resources. Questions regarding this letter or further coordination should be directed to Ms. Mayra Molina, Environmental Scientist, at (707) 428-2067 or Mayra.Molina@wildlife.ca.gov; or Ms. Brenda Blinn, Senior Environmental Scientist (Supervisory), at (707) 944-5541 or Brenda.Blinn@wildlife.ca.gov.

Sincerely,



Gregg Erickson
Regional Manager
Bay Delta Region

ec: State Clearinghouse #2014042041

Ms. Susan Glendening, San Francisco Regional Water Quality Control Board
susan.glendening@waterboards.ca.gov

Mr. Gary Stern, NOAA Fisheries
gary.stern@noaa.gov

Mr. Joseph Terry, U.S. Fish and Wildlife Service
joseph_terry@fws.gov

Mr. Patrick Samuel, California Trout
psamuel@caltrout.org

Ms. Stephanie Moreno, Guadalupe Coyote Resource Conservation District
smoreno@gcrcd.org