



**UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration**

**NATIONAL MARINE FISHERIES SERVICE
West Coast Region
777 Sonoma Avenue, Room 325
Santa Rosa, California 95404-4731**

October 15, 2021

Ryan Heacock
Senior Water Resources Specialist
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, California 95118

Re: NOAA's NMFS' Comments on Draft Program Environmental Impact Report for the Fish and Aquatic Habitat Collaborative Effort

Dear Mr. Heacock:

Thank you for the opportunity to provide comments on the Santa Clara Valley Water District's (Valley Water) June 30, 2021 Draft Environmental Impact Report (DEIR) for the Fish and Aquatic Habitat Collaborative Effort (FAHCE). Valley Water is proposing to implement the 2003 FAHCE Settlement Agreement through a Fish Habitat Restoration Plan (FHRP). NOAA's National Marine Fisheries Service (NMFS) initialed the 2003 Settlement Agreement, and we strongly support the FAHCE objectives to restore and maintain healthy steelhead and salmon populations in Stevens Creek, Guadalupe River, and Coyote Creek watersheds.

All three watersheds included in the FHRP support populations of Central California Coast (CCC) steelhead (*Oncorhynchus mykiss*) which are listed as a threatened species under the Endangered Species Act (ESA). Additionally, the Coyote Creek and the Guadalupe River watersheds also support populations of non-listed Central Valley fall-run Chinook salmon (*Oncorhynchus tshawytscha*). The FHRP has been designed by Valley Water as a restoration project and will serve as an implementation plan for the three watersheds: Guadalupe River, Coyote Creek, and Stevens Creek. The June 30, 2021, DEIR evaluates the environmental impacts that could result from implementation of the FHRP in the Stevens Creek and Guadalupe River watersheds. Valley Water will be evaluating the environmental impacts that could result from FHRP actions on Coyote Creek in the environmental impact report for the Anderson Dam Seismic Retrofit Project, scheduled for public review in April 2022. Based on this schedule for agency and public review of documents, we offer in this letter our comments on the DEIR for FAHCE Phase 1 measures in the Stevens Creek and Guadalupe River watersheds, and comments on the FHRP (DEIR Appendix A) for all three watersheds.

General Comments on the DEIR

Document Length and Readability: CEQA Guidelines § 15140 specifies environmental impact reports (EIR) to be written in plain language so decision makers can rapidly understand documents, and CEQA Guidelines § 15141 states that the text of draft EIRs should normally be less than 150 pages and for proposals of unusual scope or complexity should normally be less



than 300 pages. The FAHCE DEIR and its 16 appendices exceed 3,000 pages. Due to its size and organization, we found the DEIR cumbersome to navigate and portions difficult to read and understand.

NMFS suggests Valley Water use more concise and plain language, and incorporate additional tables and figures in the DEIR. Tables and figures can effectively communicate information that allows readers to analyze and understand the qualitative and quantitative data that is presented. For example, NMFS suggests creating tables that clearly present and compare alternatives, as many of the important details of the FAHCE and FAHCE-plus alternatives are not presented in the DEIR (see specific comments in Enclosure 1). NMFS also suggests creating hydrographs to illustrate current and projected stream flow conditions under all alternatives.

Regulatory Approvals: Section 1.4 of the DEIR discusses regulatory approvals for Valley Water's implementation of the Proposed Project, including applicable federal statutes. NMFS wishes to clarify that the incidental take of threatened Central California Coast steelhead is occurring under current reservoir operations in Stevens Creek, Coyote Creek, and Guadalupe River watersheds, and expected to continue to occur under the FHRP. Incidental take associated with reservoir operations can be exempted from the prohibitions of section 9 through an Endangered Species Act (ESA) section 7 consultation. However, NMFS is unaware of any upcoming action with a federal nexus to Valley Water's reservoir operations in the Guadalupe River and Stevens Creek watersheds. In the absence of a federal nexus, it is incumbent on Valley Water to apply for an ESA section 10(a)(1)(B) incidental take permit in order for these reservoirs to be exempt from the prohibitions of ESA section 9 and to fulfill the goal of obtaining required federal agency authorizations prior to implementation of the Proposed Project.

Climate Change Analysis: In California, we are already facing many climate-related impacts including prolonged periods of drought, an increase in duration and intensity of wildfires, sea level rise, and historic weather events. In order for Valley Water to adequately address the effects of climate change, the DEIR should present the Proposed Project and alternatives under future climate change scenarios. Specifically, streamflow, reservoir storage and water temperatures are expected to differ from past conditions under future climate change scenarios. Modeling of the Proposed Project, alternatives, and future baseline scenarios should reflect potential changes to precipitation patterns and temperature associated with climate change, and results presented quantitatively.

Implementation Schedule: Section 2.8 indicates the exact start date for implementing specific measures varies and in some cases is unknown due to the need address environmental reviews, water rights, and dam safety. The reader is referred to Table 6-13 in Appendix A which also does not contain specific dates for implementation of measures. NMFS recommends Valley Water develop a schedule with general target dates (i.e., year) for the implementation of measures that takes into consideration the various actions that need to occur prior to implementation. This schedule is essential in understanding how the various elements of the Proposed Project fit together and sequencing could be designed to address the most urgent needs of steelhead and Chinook in the Stevens Creek and Guadalupe River watersheds.

Baseline Fisheries Conditions: Although Section 3.7.4.1 includes a sub-section regarding the occurrence of steelhead and Chinook salmon in the study area, this summary of fisheries surveys over the past 20 years does not convey the current status of the anadromous salmonid populations in these watersheds and the need for the Proposed Project. Additional information regarding steelhead and Chinook salmon abundance and distribution is available (e.g., Valley Water construction activities with fish collection/relocation activities, Vaki River water monitoring, PIT tagging, genetics studies, Guadalupe Flood Project monitoring program, spawning surveys) and should be included here. Available information can illustrate population trends over the past 20+ years and provide baseline information in which to gage the success of the Proposed Project. We also recommend summarizing the results of habitat typing and other surveys to describe existing habitat conditions for steelhead and salmon in the study area.

Alternatives and Alternatives Analysis: The DEIR does not adequately explain several key components of the FAHCE-plus Alternative. For example, the DEIR states that the FAHCE-plus Alternative expands the timing of pulse flows for adult salmonid upstream migration and includes a new safeguard pulse. However, the flow rate and duration of the safeguard pulse and expanded pulses are not presented. Another key component of the FAHCE Settlement Agreement is the establishment of cold water management zones where specific temperature criteria are maintained during the dry season. For the FAHCE-plus Alternative, the DEIR only states the temperature limits were raised and temperature criteria are not specified.

The DEIR analysis of alternatives is lacking in that it only compares the FAHCE and FAHCE-plus to existing conditions and future baseline conditions. It does not compare FAHCE and FAHCE-plus directly to each other; thus it is challenging to make comparisons between the two alternatives. Each of these two alternatives has beneficial attributes that could be combined into a hybrid alternative. We recommend the evaluation of an alternative that contains all the multiple flow tier levels for base flows from the FAHCE rule curves, the FAHCE summer temperature criteria, and multiple pulse flow events in the winter and spring to accommodate adult and juvenile migration.

Analytical Approach and Presentation of Results: Chapter 3 and 4's *Impact Analysis on Aquatic Biological Resources* (Sections 3.7.7.1 and 4.10) are possibly the most important sections of the DEIR because two of three project objectives (Section 2.3 *Project Objectives*) are associated with restoring and maintaining healthy steelhead and salmon populations. We found the evaluation of flow measures for steelhead and Chinook salmon in Sections 3.7.7.1 (*Proposed Project*) and 4.10 (*Alternatives*) difficult to read and interpret. Projected impacts are presented as changes to the amount of effective habitat (i.e., spawning, fry rearing, and juvenile rearing) based on the FAHCE Water and Evaluation Planning (WEAP) Model. Projected impacts to salmonid migration are presented as changes in the number of passage days per year. These WEAP model results are difficult to follow as they are embedded in the text over several pages. Results should be presented in tables and/or figures. Figures or tables would also allow for display of the range of conditions that are expected to occur between water year types, because average values can mask the extent of potential impacts in dry and critically dry water years. Additionally, it is difficult to determine if the Proposed Project will meet the objectives of the FAHCE Settlement Agreement (i.e., restoring and maintaining healthy steelhead and Chinook

salmon populations) by focusing primarily on relative changes in habitat area and passage days between alternatives and baseline conditions.

Environmentally Superior Alternative: Section 4.20 of the DEIR states the FAHCE-plus Alternative is environmentally superior to the Proposed Project because modeling determined it improves habitat conditions and migration potential for steelhead to the largest extent. Modeling results for comparing effective habitat improvements and fish passage days are not presented in DEIR Chapters 3 and 4 in a format to support this conclusion. However, data are available in Appendix K to compile a table comparing fish passage days between the Proposed Project and FAHCE-plus Alternative. By extracting information from various tables in Appendix K, NMFS created the table below that shows there is relatively little difference for adult passage days between FAHCE 2035 and FAHCE-plus 2035, but FAHCE 2035 appears to perform slightly better. For juvenile fish passage with inclusion of the water temperature criteria, FAHCE 2035 is largely superior to FAHCE-plus 2035.

Watershed	2035 FAHCE		2035 FAHCE-plus	
	Average # Adult Passage Days/Year for all POI	Average # Juvenile Passage Days/Year with Water Temperature Criteria	Average # Adult Passage Days/Year for all POI	Average # Juvenile Passage Days/Year with Water Temperature Criteria
Stevens Ck	57	49	56	42
Guadalupe River	124	37	124	37
Los Gatos Ck	40	36	40	35
Guadalupe Ck	18	25	17	24
Alamitos Ck	53	22	54	20
Calero Ck	11	29	11	31

Validity of WEAP Model Results: Valley Water developed the WEAP fisheries habitat availability estimation methodology in collaboration with NMFS and other resource agencies in 2016 and 2017. These WEAP model results are referenced extensively in the DEIR and serve as the primary assessment tool for evaluating the effects of the Proposed Project and alternatives on steelhead and Chinook salmon. Although NMFS and other resource agencies generally agreed on the approach for model formulation for the WEAP habitat availability estimation, we still have some concerns regarding the validity of the model results. In other words, we are unsure whether the model, based on existing HEC-RAS cross-sections, provides an accurate representation of actual conditions in the field (i.e., flow, water depth and velocity). NMFS and other agencies have expressed these concerns in technical workgroup meetings, and following some preliminary field validation surveys conducted by NMFS and Valley Water on Coyote Creek, our concerns regarding model validity remain. NMFS recommends that Valley Water explore alternative methods for quantifying fish habitat with the FAHCE Adaptive Management Team. We realize

that conducting additional field surveys and modeling is a large undertaking, but it is critical that appropriate models are used to predict and measure success for this important project.

Recirculation of DEIR: We recognize that considerable resources have gone into the preparation of the DEIR and appreciate Valley Water's achievement of this important project milestone. We also acknowledge that there is a need to rapidly proceed with implementation of the FAHCE restoration actions due to the precarious status of steelhead in these watersheds. However, there are significant issues associated with the DEIR's readability and a need to incorporate additional technical analysis, as described in our comments above and in the enclosed table. Therefore, NMFS requests Valley Water prepare a supplemental EIR which clarifies the impacts and analyses, and presents this information in a more clear and concise format. The supplemental EIR should be circulated for public review and comment prior to Valley Water's issuance of the final EIR.

Specific Comments on the DEIR and FHRP

In addition to the above general comments on the DEIR, NMFS offers specific comments on the DEIR and the FHRP in the enclosed table.

We look forward to continuing our work with Valley Water on the FAHCE program and are available to assist with preparation of supplemental information/analyses for the EIR. Please direct questions regarding this letter to Nick Van Vleet at nicholas.vanvleet@noaa.gov or 707-575-6077.

Sincerely,



Gary Stern
San Francisco Bay Branch Chief
North Central Coastal Office

Enclosure

cc: Sarah Young, Valley Water (SYoung@valleywater.org)
 Craig Weightman, CDFW (Craig.Weightman@wildlife.ca.gov)
 Jessica Maxfield, CDFW (Jessica.Maxfield@Wildlife.ca.gov)
 Brenda Blinn, CDFW (Brenda.Blinn@wildlife.ca.gov)
 Mayra Molina, CDFW (Mayra.Molina@Wildlife.ca.gov)
 Emily Jacinto, CDFW (Emily.Jacinto@Wildlife.ca.gov)
 Joseph Terry USFWS (Joseph_Terry@fws.gov)
 Susan Glendening, SF Bay RWQCB (Susan.Glendening@waterboards.ca.gov)
 Liz Morrison, SF Bay RWQCB (Elizabeth.Morrison@waterboards.ca.gov)
 Keith Lichten, SF Bay RWQCB (Keith.Lichten@waterboards.ca.gov)
 Steve Marquez, State Water Board (Steve.Marquez@waterboards.ca.gov)
 Scott McFarland, State Water Board (Scott.McFarland@waterboards.ca.gov)
 Katerina Galacatos, Corps of Engineers (Katerina.Galacatos@usace.army.mil)
 Keith Hess, Corps of Engineers (Keith.D.Hess@usace.army.mil)
 Copy to E-File ARN 151416WCR2021SR00209

NMFS' Comment Table on FAHCE DEIR and Appendix A (FHRP)

Document and Section	Page(s)	Comment
DEIR 2.2	2-2	DEIR concludes the Project will not substantially affect aquatic habitat conditions in tidal areas; however, it is not clear if an analysis was performed to evaluate the effects of changes to streamflow rates (i.e., freshwater discharge into tidal areas) on estuarine water quality (i.e., salinity, turbidity, and nutrient input).
DEIR 2.4.1	2-11 through 2-19	The document presents the FAHCE reservoir rule curves, but there is no information presented on the expected frequency of the flow tiers. It would be very informative to present the percentage of time that flow in a stream is likely to equal or exceed a flow tier (i.e., exceedance level). We suggest providing exceedance probability tables with 10% increments for each month, as was developed for Coyote Creek to support our work on the ADSRP. For the ADSRP, Valley Water compiled tables that showed the difference between alternatives (e.g. FAHCE flows in cfs minus FAHCE-plus flows in cfs). Display of water temperature information in this format is also helpful. Presentation of hydrographs that display the modeled flow conditions by water year types (critical, dry, below normal, above normal and wet) is an additional useful illustration of expected conditions under the Proposed Project and alternatives.
DEIR 2.4.1.4	2-18	NMFS recommends the creation of an operations work group with resource agency representatives to assist Valley Water with the timing of pulse flow events. Ideally, pulse events would be timed to coincide with precipitation events and will take into consideration real-time information from the fish monitoring program.
DEIR 2.4.1.6	2-19	Suggest the proposed ramping schedule from the FRHP be presented here. Additionally, a table with an example would provide a clear illustration of this element of the FHRP.
DEIR 3.7.4.1	3-159	Text describing the “independent” populations of steelhead in Stevens Creek and Guadalupe River watersheds is potentially misleading, because it could be interpreted to indicate that these populations currently have a high likelihood of persisting over the next 100 years. While both populations are classified as independent populations (Guadalupe River, functionally independent and Stevens Creek, potentially independent), this classification represents their historical status. This does not reflect their current extinction risk.

Document and Section	Page(s)	Comment
DEIR 3.7.4.1	3-161	DEIR notes that reservoirs in the Guadalupe River watershed block sediment transport and access for anadromous salmonids to upstream habitat. These conditions also apply to Stevens Creek.
DEIR 3.7.4.1	3-161 through 1-162	Suggest the description of the current status of steelhead and salmon populations in the study area be expanded. Surveys and sampling from various sources can provide information on the distribution, abundance, and may indicate population trends. The results of habitat typing and other stream assessments should also be presented to describe the existing condition of salmonid habitat in the study area.
DEIR 4.3.3	4-9 through 4-10	The FACHE-plus Alternative is not adequately described. Please include additional information regarding the magnitude (cfs), duration, frequency, and timing of pulse flows. Please also provide the specific water temperature criteria for cold water management zones.
Appendix A 1.4.2, Table 1-1	1-8	Evelyn Fish Ladder: Although Valley Water completed construction of a fishway at the Evelyn Avenue Bridge in 2016, erosion in the channel exposed steel sheet piles and washed away compacted fill material during the winter of 2017. The project’s Year 3 monitoring report (2019) indicates velocity issues could arise affecting fish passage if a narrow gap now plugged with sediment and debris fails. Scouring continues to be an issue at several sheet piles and fish passage at the facility is tenuous. This fishway requires extensive repairs and should not be considered “completed” for purposes of FAHCE Phase 1.
Appendix A 1.4.2, Table 1-1	1-8	Stream Gate 35: A fishway was completed at this location in 2002, but the structure failed to meet CDFW passage assessment criteria in an analysis completed by AECOM and Michael Love & Associates. ¹ The structure received a score of “12” indicating that it is high in limiting access to Stevens Creek. The structure is also known to strand fish when streamflows recede in the spring months. This fishway should be remediated and not be considered “completed” for purposes of FAHCE Phase 1.
Appendix A 1.4.2, Table 1-1	1-9	Almaden Dam Volitional Passage Study: The status of this measure is “in progress” and the reader is referred to Chapter 4 for additional information. However, the description presented in Chapter 4 is verbatim from Provision 6.6.2.1.3.3(A) of the Settlement Agreement. The FHRP should provide additional information regarding the study now underway, including the schedule and process for agency and public review.

¹ AECOM and M. Love & Assoc. 2020. Stevens Creek Fish Passage Analysis. Prepared for Valley Water, June 2020.

Document and Section	Page(s)	Comment
Appendix A 1.4.2, Table 1-1	1-9	<p>Plan for Almaden Lake: The proposed plan for Almaden Lake as presented in the <i>Almaden Lake Improvement Project Final Environmental Impact Report</i> (2021) does not fulfill the Phase 1 measure in the Settlement Agreement, because the plan does not extend downstream to the reach including Guadalupe Creek. Provision 6.6.2.1.3.3(B) in the Settlement Agreement explicitly states the Alamitos Creek Facilities Plan will include both Alamitos and Guadalupe creeks. NMFS’ comments on the <i>Almaden Lake Improvement Project Draft Environmental Impact Report</i> (NMFS letter dated February 4, 2020) noted this deficiency and we requested the project extend restoration actions downstream of Coleman Road to include the confluence with Guadalupe Creek. Improvements at Almaden Lake and the reach extending to the Alamitos Drop Structure are critically important for the restoration of steelhead and salmon habitat in the Guadalupe River watershed. This highly modified reach is deleterious to fish passage, water temperature, riparian vegetation, bedload transport, riverine riffle-run-pool habitat, and creates a refuge for non-native predatory fish. The benefits attributed to the proposed Almaden Lake Improvement Project will not be fully realized if the plan does not extend further downstream and Valley Water will miss a unique opportunity to apply an ecological restoration approach to long-standing habitat problems in this reach. To fulfill Provision 6.6.2.1.3.3(B) of the Settlement Agreement, restoration actions must extend to the reach that includes the confluence with Guadalupe Creek.</p>
Appendix A 1.4.2, Table 1-1	1-10	<p>Upper Penitencia Recharge Pond Diversion/Noble: This water diversion is no longer operated by Valley Water and the fish ladder/screen have been buried in sediment since the Stream Maintenance Program began annual inspections in 2014. The facility should be completely removed from the channel to restore unimpeded fish passage at this site. With the facility no longer in operation and not maintained, this measure should not be considered “completed”.</p>
Appendix A 1.4.2, Table 1-1	1-10	<p>Coyote Percolation Ponds (Metcalf Ponds) Stream Corridor Restoration-Feasibility Study: As described above for volitional passage at Almaden Dam, this measure is “in progress” and the reader is referred to another chapter for additional information. However, the description presented in Chapter 5 is verbatim from Provision 6.4.2.1.3(B) of the Settlement Agreement. The FHRP should provide additional information regarding the Coyote Percolation Ponds study now underway, including the schedule and process for agency and public review.</p>

Document and Section	Page(s)	Comment
Appendix A 2.4.2.2	2-24	Restoration project sites identified in Valley Water’s <i>Study of Santa Clara County Steelhead Streams to Identify Priority Locations for Gravel Augmentation and Large Woody Debris Placement</i> were based on multi-criteria scoring and weighting that included District Fee and Easement Maps. We recognize that the feasibility of access and staging is an important consideration, but also encourage Valley Water to include high value restoration opportunities on private land and seek out landowners amenable to restoration activities on their properties.
Appendix A Chapter 6	6-1 through 6-54	<p>The U.S. Department of Interior’s Adaptive Management Technical Guide² offers sound advice for the establishment of objectives in an adaptive management program. In the context of adaptive management, objectives should exhibit the following features: (1) Specific – metrics and target conditions; (2) Measureable – contain elements that can be readily measured; (3) Achievable – based on the capacities of the natural resource system; (4) Results-oriented – contain resource endpoints or conditions representing achievements; and (5) Time-fixed – indicate timeframe. These features are also referred to as “SMART” objectives.</p> <p>Several of the objectives proposed in the AMP do not include all the above elements. NMFS recommends the objectives included in the FAHCE AMP contain SMART features.</p>
Appendix A 6.3.3	6-5	<p>The AMP proposes to not use population metrics as a measurable objective or the basis to determine overall program performance. NMFS disagrees with this approach and recommends population metrics be used to gage program performance.</p> <p>Population metrics including adult escapement, redd surveys, juvenile growth and survival, and smolt production are commonly measured in salmonid streams and methodologies well established. NMFS recommends the FAHCE AMP utilize monitoring methods for coastal California streams presented in CDFW Fish Bulletin 180, <i>California Coastal Salmonid Population Monitoring: Strategy, Design, and Methods</i> (CMP). The CMP was developed by CDFW and NMFS to measure the progress of salmonid populations towards recovery, including the evaluation of habitat restoration effectiveness.</p> <p>While small population sizes can complicate monitoring and trend analysis, these challenges can be overcome with a comprehensive monitoring program. Additionally, if populations are too small to</p>

² Williams, B.K., R.C. Szaro, and C.D. Shapiro. 2007. Adaptive Management: The U.S. Department of the Interior Technical Guide. Adaptive Management Working Group, U.S. Department of the Interior, Washington, DC.

Document and Section	Page(s)	Comment
		<p>monitor, it would seem that the FAHCE objectives haven't been met. We recommend that Valley Water work with the AMT to develop the fisheries monitoring program that incorporates the CMP and an adaptive management framework that includes population condition, habitat conditions, and biological responses.</p> <p>Information regarding the viability of salmonid populations in FAHCE streams will be essential to understanding the effectiveness of restoration actions and determining progress towards the Settlement Agreement's primary objective: "... restore and maintain healthy steelhead trout and salmon populations as appropriate to each of the Three Creeks...". Therefore, understanding the status of the steelhead and salmon populations in these watersheds is integral to evaluating program success and informing adaptive management decisions.</p>
Appendix A 6.4.1.1	6-7	<p>This section of the AMP states "[m]aximum instream flows are not prescribed since high flow events are determined by local hydrology and runoff (including flood flows) that may exceed reservoir storage and release limitations." This statement only applies to the winter/spring period extending from November 1 through April 30, and does not apply to the summer/fall season extending from May 1 through October 31. Maximum reservoir release rates during the summer/fall to cold water management zones are determined by the process described in Appendix E of the Settlement Agreement, and are based on the available hypolimnetic volume and the rule curves. Appendix E notes that release rates may only exceed the calculated cold water release if the hypolimnetic volume would produce a cold water flow of less than 1 cfs throughout the summer period. If release rates exceed the calculated release level, there could be detrimental effects on the volume of the cold water pool and it would reduce end-of-year reservoir carryover storage. Therefore, it is important for reservoir release rates during the period between May 1 and October 31 to not exceed levels defined in the FAHCE reservoir rule curves to cold water management zones. Please clarify in the FHRP that there is a maximum instream flow criteria for cold water management zones during the period between May 1 and October 31.</p>
Appendix A 6.4.1.1	6-7 through 6-8	<p>Operational decisions regarding pulse flows and reservoir release rates are defined by the rule curves and procedures presented in Appendix E of the Settlement Agreement. However, some operational adjustments and decisions will likely be necessary to respond to fish monitoring information, weather forecasts, unplanned maintenance needs, etc. We recommend a work group be established</p>

Document and Section	Page(s)	Comment
		to assist Valley Water with operational decisions at northern Santa Clara County reservoirs, similar to the operations work group established for Uvas and Llagas reservoirs.
Appendix A 6.4.1.1, Table 6-2	6-8	Beginning February 1, the transfer rule curve and the pulse flow rule curve are equal for Almaden Reservoir (Figure 4-9). When storage exceeds the curve, a pulse flow event will be initiated. Appendix E of the Settlement Agreement specifies that pulse flows and water transfers from Almaden Reservoir to Calero Reservoir may take place simultaneously provided there is adequate storage above the curve to meet two pulse flow events. If less than two pulse flow events have taken place for the season, pulse flows to Alamitos Creek have priority over water transfers.
Appendix A 6.4.1.2	6-9	The AMP describes deployment of a network of self-contained water temperature recorders as part of the annual monitoring program and annual reports will be provided to the AMT. This annual process does not accommodate the need for real-time monitoring and potential adjustments to reservoir operations in the event that temperature objectives are not being met. Table 6-3 presents the compliance requirements for the three cold water management zones, and the targets are daily averages and daily maximums. As recommended above, an operations work group should be established with real-time access to stream temperature and flow data to monitor conditions and be prepared to promptly respond if daily averages or maximums are exceeded.
Appendix A 6.4.2 Table 6-5	6-10 through 6-11	The AMP proposes use of water depth and velocity as measureable objectives for fish passage, spawning, and rearing related to instream flows. The proposed criteria for fish passage at critical riffles appears appropriate as a measurable objective, but the spawning objective is vague, does not incorporate a spatial/distribution component, and does not incorporate substrate conditions, an essential consideration for spawning. Similarly, the rearing measureable objective does not include a spatial/distribution component and habitat attributes other than temperature. We recommend Valley Water work with the AMT to develop objectives for spawning and rearing that are consistent with “SMART” objectives (see comment above for Chapter 6). Additionally, Valley Water and the AMT should work together to develop measureable objectives for spawning and rearing that are based on a biological response to FAHCE measures.

Document and Section	Page(s)	Comment
Appendix A 6.4.3	6-11	The AMP proposes measurable objectives for future non-flow measures be based on site-specific characteristics and the habitat functions intended by the project. We recognize the challenge of assigning project-specific measurable objective before project conception and appreciate the proposal to base project-specific monitoring on physical parameters and guidelines provided in Flosi et al. (2010). To further support the timely development of project-specific measurable objectives, we recommend Valley Water work with the AMT to include a framework in the AMP that will guide the development of measurable objectives during the planning phase of future non-flow measures.
Appendix A 6.5	6-13	The AMP indicates a monitoring program will be developed by Valley Water, but does not describe the role of the AMT in the development of the program. Monitoring is a foundational element of the AMP and the AMT should be fully engaged in the development of the monitoring component of the AMP.
Appendix A 6.5.1.1 and 6.5.1.2	6-20 through 6-21	Where lacking, stream gages, reservoir storage gages, and water temperature monitoring devices should be equipped with telemetry and results made available in real-time via Valley Water’s Surface Water Data Portal.
Appendix A 6.5.2	6-23 through 6-27	Validation monitoring should include biological response to FAHCE measures. See comments above regarding the CMP and biologically-based metrics (i.e., growth, survival, abundance, distribution) to evaluate program success and inform adaptive management decisions.
Appendix A Table 6-13	6-51	Provision 6.4.2.1.1(D) of the Settlement Agreement (<i>Plan/Operate for Reducing Smolts Entrainment and Predation at the Coyote Percolation Facility</i>) appears in Table 6-13, but is not described elsewhere in the FHRP. This measure pertains to the development and implementation of a plan to minimize the creation and maintenance of ponds of water by modifying operation of the Coyote Percolation Facility from February 1 through April 30 for the purpose of improving conditions for outmigrating smolts. Provision 6.4.2.1.1(D) requires the development of the plan with 13 months of the effective date and implementation of the plan upon completion. Table 6-13 presents an implementation schedule that is inconsistent with this provision in the Settlement Agreement. Please correct this oversight by describing this measure in the FHRP and correcting the schedule in Table 6-13 to be consistent with the Settlement Agreement.

Document and Section	Page(s)	Comment
Appendix A 6.9	6-54	<p>Section 6.9 indicates Valley Water will make available a maximum of \$42 million for each of Phases 1, 2 and 3. This funding amount remains unchanged from Valley Water’s commitment when the Settlement Agreement was initialed in 2003. We recommend adjusting the maximum amount upward to compensate for inflation. Updating this amount for inflation will maintain the same purchase power as was agreed to in 2003 and better ensure expected benefits are realized.</p>
Appendix A Additional Items for the FHRP Suggested by NMFS	n/a	<p>Commitment to Volitional Fish Passage at Almaden Dam: During the development of the Three Creek Habitat Conservation Plan (HCP), NMFS and Valley Water tentatively reached agreement in 2009 to include volitional fish passage at Almaden Dam. As noted in Table 5.5-1 in the DEIR, Almaden Dam requires major upgrades including a new intake structure and reconfiguration of the spillway. These modifications to Almaden Dam provide an opportunity to incorporate facilities for volitional fish passage and, in 2009, a schedule was developed for the study, design and construction of the project over a 9-year timeframe. The upper Alamos Creek watershed supports perennial cold water streamflow and contains several miles of high quality salmonid habitat which makes this project an exceptional and unique restoration opportunity for steelhead.</p> <p>Removal of the Mabury Water Diversion: The Mabury water diversion facility on Upper Penitencia Creek includes a poorly designed fish screen and a fish ladder that frequently requires sediment removal. Its purpose is to fill ponds in the City of San Jose’s Overfelt Gardens Park. In recent years, the diversion facility has not been operated due to the lack of adequate imported water supplies. The April 2009 Draft Three Creeks HCP proposed removal of this water diversion facility and restoration of the Upper Penitencia Creek channel through removal of the ladder and screen. NMFS recommends this measure be included in the FHRP.</p> <p>Screening of Recharge Basin Outlets: Several species of non-native fish are known to reside in Valley Water percolation ponds. The outlets of some ponds have been screened to prevent the release of exotic fish into local waterways, but not all have adequate screens. Of note, the Robert Gross Ponds on Upper Penitencia Creek contain an overflow weir that allows water and fish to discharge directly into the creek. Similar to the above two items, Valley Water included this measure in 2009 Draft Three Creeks HCP. NMFS recommends this measure be included in the FHRP.</p>

Document and Section	Page(s)	Comment
		<p>Almaden Lake and Alamos Drop Structure: Please see comments above regarding the Plan for Almaden Lake (Provision 6.6.2.1.3.3(B) in the Settlement Agreement) and NMFS' comments on the <i>Almaden Lake Improvement Project Draft Environmental Impact Report</i> (NMFS letter dated February 4, 2020). Improvements at Almaden Lake and the reach extending to the Alamos Drop Structure would provide substantial restoration benefits to approximately 3,500 linear feet of channel, and benefit miles of habitat downstream in Guadalupe River by reducing thermal warming and restoring sediment transport. NMFS recommends implementation of this measure be included in the FHRP.</p>