



**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**

January 27, 2021

Refer to NMFS No: INQ-2020-00037
Project No. 5737-000, 5737-007 – California’s
Anderson Dam Hydroelectric Project
Santa Clara Valley Water District

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

John Bourgeois
Deputy Operating Officer
Watershed Stewardship and Planning Division
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, California 95118-3686

Subject: NMFS’ Comments Pertaining to the Design of the Coyote Percolation Pond Inflatable Dam for Santa Clara Valley Water District’s FERC Order Compliance Project (FERC Project No. 5737-000, 5737-007)

Dear Secretary Bose and Mr. Bourgeois:

This letter responds to the Santa Clara Valley Water District’s (Valley Water) request for NOAA’s National Marine Fisheries Service (NMFS) to provide design considerations for the Coyote Percolation Pond inflatable dam project by February 1, 2021.¹ These comments supplement technical assistance and emergency consultation recommendations provided by NMFS on the replacement of the Coyote Percolation Dam in our letters of June 29, 2020, August 31, 2020, September 17, 2020, and November 23, 2020. Valley Water proposes to replace the existing steel flashboard dam at the Coyote Percolation Pond on Coyote Creek with an inflatable bladder dam as part of the Federal Energy Regulatory Commission (FERC) Order Compliance Project (FOCP). Phase 1 of the project would include construction of the inflatable bladder dam and Phase 2 would modify the channel downstream of the dam to allow fish to safely pass over the deflated bladder.

To inform the design of Phase 1 of the bladder dam project, Valley Water committed to completing a feasibility analysis for Phase 2 by July 2021, in coordination with NMFS, California Department of Fish and Wildlife (CDFW), and the U.S. Fish and Wildlife Service.² To date, Valley Water has convened three meetings of a sub-committee of the Anderson Dam Seismic Retrofit Project Technical Work Group (TWG) for the purpose of soliciting input on the bladder dam design from

¹ Request made by way of Valley Water’s January 15, 2021, Anderson Dam Seismic Retrofit Project – Environmental Compliance and Permitting Monthly Progress Report, January 2021.

² Valley Water’s September 25, 2020, letter to FERC and NMFS.



NMFS and CDFW. In early January 2021, Valley Water provided the sub-committee with a tentative schedule for deliverables and meetings. On January 22, 2021, Valley Water provided the sub-committee a technical memorandum with the results of HEC-RAS modeling for the project reach of Coyote Creek. We appreciate this coordination and will provide comments on the HEC-RAS modeling through the TWG sub-committee.

A critical design consideration to be incorporated into the project pertains to the range of streamflows under which unimpeded fish passage would be provided over the deflated bladder. HEC-RAS model results presented in the technical memorandum were performed for two different flow events: 850 cfs and 1,400 cfs. Although the bladder dam may not require deflation until flows exceed its safe operating limit of 800 cfs, significant benefits to steelhead and Chinook salmon can be provided if the bladder dam is deflated at lower streamflows. To fully achieve the fish passage improvement potential offered by an inflatable bladder, the replacement dam should be designed to provide unimpeded upstream and downstream passage across the deflated bladder over a wide range of flows including conditions expected during implementation of the Fish and Aquatic Habitat Collaborative Effort (FAHCE) Plus reservoir rule curves.³ Information regarding the need for fish passage over the deflated bladder dam under lower streamflow conditions is presented below.

Valley Water's FOCP Effects Analysis for Threatened Steelhead

Valley Water's December 2020 *Revised Analysis of Effects on National Marine Fisheries Listed Species and Designated Critical Habitat from Anderson Dam Reservoir FERC Order Compliance Project (FOCP Effects Analysis)* discusses the fisheries benefits of deflating the bladder dam and draining the Coyote Percolation Pond more frequently. Page 69 of the *FOCP Effects Analysis* describes the lowering of the bladder dam as a benefit to steelhead in Coyote Creek by reducing competition pressures and predation from non-native fish species. Periodic deflation of the bladder drains warm water from the percolation pond which is described in the *FOCP Effects Analysis* as "the stronghold of the non-native warm water adapted species in Coyote Creek."

FAHCE Settlement Agreement Phase 1 Measures for Coyote Creek

During development of the FAHCE Settlement Agreement the benefits of seasonally draining the Coyote Percolation Pond were recognized and incorporated into the agreement to protect outmigrating steelhead smolts. FAHCE Phase 1 Measure 6.4.2.1.1(D) requires Valley Water to develop and implement a plan during the period from February 1 to April 30 that "... will modify operation of the Coyote Percolation Facility to minimize the creation and maintenance of ponds of water so to reduce the entrainment and predation of out-migrating steelhead trout smolts ...".

Spring 2020 Coyote Creek Pulse Flow Event

In May 2020, Valley Water implemented a pulse flow action to encourage the outmigration of juvenile steelhead from Coyote Creek in advance of the Anderson Reservoir drawdown. The initial pulse was a release of approximately 120 cfs from Anderson Reservoir and it was ramped down over several days to approximately 60 cfs to mimic a natural spring flow event in the watershed.

³ FAHCE Plus reservoir release scenarios for Coyote Creek include an outmigration pulse event of 60 cfs, and an upstream migration pulse of 90 cfs. With up to 20 cfs of groundwater infiltration between Anderson Dam and Coyote Percolation Dam, 40 cfs may be expected at the Percolation Dam during a FAHCE Plus outmigration pulse event of 60 cfs.

Concurrent with this May 2020 pulse event, Valley Water drained the Coyote Percolation Pond to improve fish passage conditions and reduce predation risk in this reach of Coyote Creek. The TWG, including NMFS, believes the combination of increasing reservoir release rates and draining the Coyote Percolation Pond is an effective strategy that benefits the outmigration of juvenile anadromous salmonids from Coyote Creek.

FAHCE Plus Reservoir Rule Curves

Future pulse flow releases to assist the migration of anadromous salmonids in Coyote Creek are a key element of Valley Water's proposed post-retrofit operation of Anderson Dam. Reservoir release schedules developed for Coyote Creek, referred to as FAHCE Plus reservoir rule curves, contain pulse flow events of 90 cfs for up to 10 days per year for adult upstream migration and 60 cfs for up to 7 days per year for juvenile outmigration. NMFS supports the use of reservoir pulse releases to aid anadromous salmonid migration and, as deployed by Valley Water in May 2020, the addition of draining the Coyote Percolation Pond adds considerable benefit to this pulse flow measure. The operational flexibility provided by a bladder would allow Valley Water to easily raise and lower the dam at the percolation pond in response to pulse flow events for fish passage.

For the reasons presented above, NMFS requests the replacement bladder dam at the Coyote Percolation Pond be designed to provide unimpeded upstream and downstream fish passage over the deflated bladder at streamflow rates as low as those expected to occur under FAHCE Plus pulse flow events. We recognize that Valley Water also intends to modify the existing fish ladder at the dam to pass fish when the bladder is deflated. However, the ladder's flow capacity is limited to 50 cfs, and streamflow in excess of the ladder's capacity will spill either through the facility's radial gates or over the deflated bladder. As described in our September 17, 2020, letter to FERC, multiple flow paths at the Coyote Percolation Dam can result in adverse effects to adult and juvenile salmonids, including injury/mortality, delayed migration, and attraction to blocked migration routes. To address these issues, Phases 1 and 2 of the bladder dam project should be designed to provide fish passage across the deflated bladder over a wide range of flow conditions and not rely solely on the ladder for passage when streamflows are less than 850 cfs.

Thank you for the opportunity to comment on the replacement dam design, and we look forward to discussing this issue at the next meeting of the TWG sub-committee. Should you have questions regarding these comments, please contact Darren Howe at 707-575-3152 or by email at Darren.Howe@noaa.gov.

Sincerely,



Alecia Van Atta
Assistant Regional Administrator
California Coastal Office

cc: Jennifer Ambler, FERC, Washington, D.C.
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ARN File #151422WCR2020SR00062

**UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION**

Santa Clara Valley Water District's)	Project No. P-5737-000
Design of the Coyote Percolation Pond Inflatable Dam)	Project No. P-5737-007
California's Anderson Dam Hydroelectric Project)	
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CERTIFICATE OF SERVICE

I hereby certify that I have this day served, by first class mail or electronic mail, a letter to Secretary Bose, Federal Energy Regulatory Commission, containing NOAA's National Marine Fisheries Service's comments pertaining to the Santa Clara Valley Water District's Design of the Coyote Percolation Pond Inflatable Dam, California's Anderson Dam Hydroelectric Project, P-5737-000 and -007. This Certificate of Service is served upon each person designated on the official P-5737-000 and -007 Service Lists compiled by the Commission in the above-captioned proceedings.

Dated this 28th day of January 2021,

Andrea Berry

Andrea Berry
Administration Support Assistant
National Marine Fisheries Service

