



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

August 2, 2023

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

Re: NOAA's National Marine Fisheries Service's (NMFS) Comments regarding the Final Environmental Impact Report and Proposed Project for the Fish and Aquatic Habitat Collaborative Effort

Dear Mr. Bourgeois:

The purpose of this letter is to provide additional comments regarding the Santa Clara Valley Water District's (Valley Water) proposed project for the Fish and Aquatic Habitat Collaborative Effort (FAHCE). NMFS provided comments on Valley Water's June 30, 2021 Draft Environmental Impact Report (DEIR) for the FAHCE Program by letter dated October 15, 2021, and we have reviewed the Final EIR (FEIR) released by Valley Water on June 30, 2023. We greatly appreciate and support Valley Water's efforts to implement a program with the overall objective to restore and maintain healthy steelhead and salmon populations in streams of northern Santa Clara County.

Steelhead populations in Stevens Creek, Guadalupe River, and Coyote Creek watersheds are part of the Central California Coast (CCC) Distinct Population Segment; and they are listed as a threatened species under the federal Endangered Species Act of 1973. Portions of these watersheds are also designated as critical habitat for CCC steelhead, and habitat conditions that support viable salmonid populations in these watersheds have been significantly degraded. Since the FAHCE Settlement Agreement was initiated in 2003, instream habitat conditions for CCC steelhead in the streams of northern Santa Clara County have continued to deteriorate and populations have further declined over the past 20 years. The condition of CCC steelhead critical habitat, specifically its ability to provide for conservation, is severely degraded from conditions known to support viable salmonid populations. Fish monitoring performed by Valley Water and Dr. Jerry Smith has shown steelhead populations declining sharply. The currently depressed populations in these watersheds will require extraordinary actions to reverse this trend. Accordingly, it is critically important to start implementation of the FAHCE Program as soon as possible; however, we believe that more robust reservoir operations plans are needed to achieve the FAHCE objectives to restore and maintain healthy populations of CCC steelhead and salmon below Valley Water's reservoirs.

In our 2021 DEIR comment letter, we provided comments on the Proposed Project (based on the original FAHCE reservoir rule curves) and the FAHCE-plus Alternative (based on the FAHCE-



plus reservoir rule curves) and recommended additional modeling to better inform assessment of the proposed flow programs. The FEIR's Proposed Project and another FEIR alternative, the FAHCE-plus Alternative, incorporate many beneficial non-flow measures that include several actions specified in the October 2016 NMFS CCC steelhead recovery plan (NMFS 2016). The principle difference between the FEIR's Proposed Project and FAHCE-plus Alternative pertains to instream flows and water temperature management below Valley Water reservoirs. The original FAHCE Operation Rule Curves contained in the FEIR's Proposed Project provide a foundation for winter/spring streamflows and managing water temperatures during the summer/fall period in Stevens Creek and the Guadalupe River watershed. The FEIR FAHCE-plus Alternative differs from the FAHCE Operation Rule Curves by providing enhanced winter/spring pulse flows for fish migration in Stevens Creek and the Guadalupe River watersheds, but the FAHCE-plus Alternative compromises winter/spring streamflows and summer/fall water temperatures.

Recognizing the strengths of each FEIR alternative, NMFS suggests a hybrid alternative that incorporates the winter/spring streamflows and summer temperature management components from the FEIR Proposed Project and the pulse flow components from the FEIR FAHCE-plus Alternative. To demonstrate how the FAHCE Proposed Project and the FAHCE-plus Alternative could be combined, NMFS presented a version of a hybrid alternative to the Initialing Parties at the February 1, 2023 meeting (see Enclosure 1 for details). By utilizing actions that are part of the FEIR Proposed Project and the FEIR FAHCE-plus Alternative to create a hybrid alternative, additional analysis and delays to complete the California Environmental Quality Act (CEQA) process will be minimized. NMFS recommends that the hybrid alternative be included in the FAHCE program and further developed with the FAHCE adaptive management team.

We look forward to working with Valley Water in the implementation of the FAHCE Program and our continued participation on the adaptive management team. Please direct questions regarding these comments to Darren Howe at darren.howe@noaa.gov or 707-575-3152.

Sincerely,



Brian Meux
Acting San Francisco Bay Branch Chief
North-Central Coast Office

Enclosure

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REFERENCES

National Marine Fisheries Service (NMFS). 2016. Final Coastal Multispecies Recovery Plan, California Coast Chinook Salmon, Northern California Steelhead, Central California Coast Steelhead. West Coast Region, Santa Rosa, CA. October 2016.

Hybrid Flows Alternative

Combining FAHCE and FAHCE+

January 26, 2023

Hybrid Flows Alternative

Keep components of **FAHCE Plus**¹ (represented in red text), add components of **Original FAHCE**² (represented in blue text), and add components that are intermediate between FAHCE and FAHCE Plus (represented in purple text):

Stevens Creek

- **Upmigration Pulse:** Pulse flows of 38 cfs to occur between January 1 and April 30. The storage level required to trigger a pulse flow is based on the highest winter base flow tier in the FAHCE Rule Curves (16 cfs for Stevens Creek). The duration of each Upmigration Pulse Flow event is 3 days.
- **Upmigration Safeguard Pulse:** If no prior pulse flows have occurred and reservoir storage is $\geq 1,600$ AF on March 1, then, as a one-time-event, a 38 cfs Upmigration Safeguard Pulse will occur for 3 days.³
- **Outmigration Pulse:** If reservoir storage is between 1,600 AF and the highest winter base flow tier (16 cfs) on April 15, then, as a one-time-event, a 20 cfs Outmigration Pulse will occur for 5 days.⁴
- **Maximum Number of Pulses:** The maximum number of pulse flows will be 9 events per year (January 1 through April 30).
- **Winter Base Flow:** Winter base release rates are six tiers based on reservoir storage (16, 12, 8, 5, 3 and 1 cfs).
- **Summer/Fall Base Flow:** Summer/fall reservoir releases to maintain the cold water management zone are based on cold water pool of 15°C.

¹ FAHCE Plus is an alternative in the June 30, 2021 DEIR

² FAHCE is the proposed action in the June 30, 2021 DEIR

³ NMFS recommends “on March 1” be replaced with “between March 1 and March 15” to allow for the pulse flow initiation date to vary and coincide with environmental conditions (i.e., rainfall events).

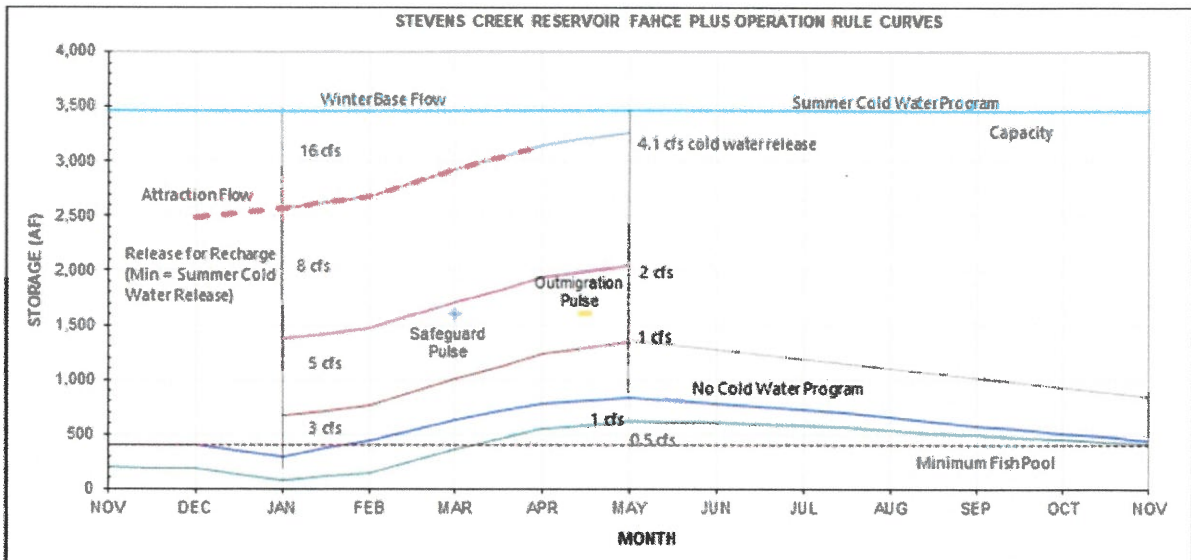
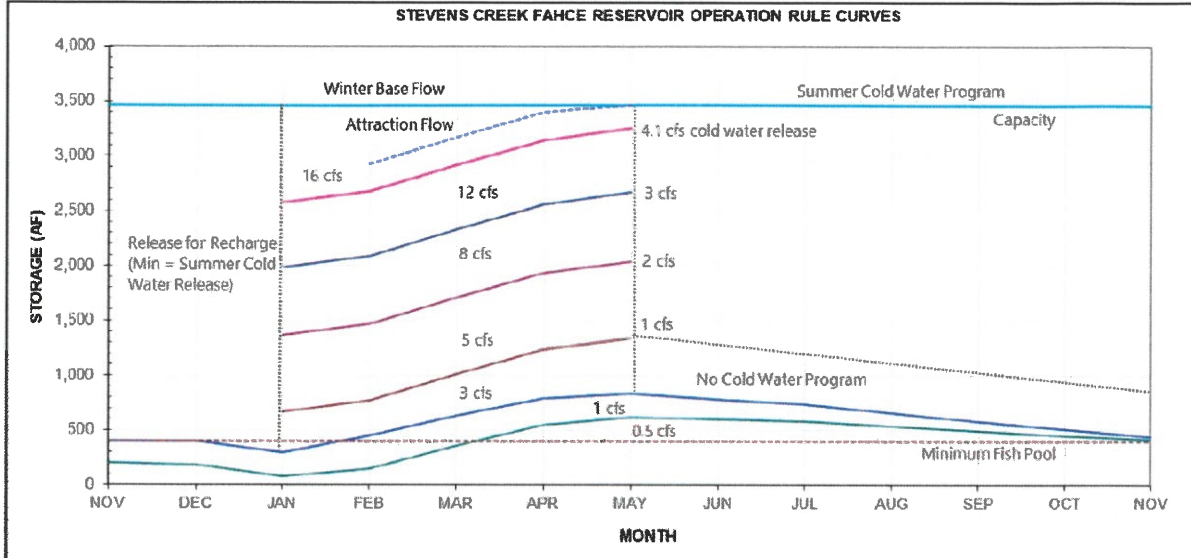
⁴ NMFS recommends “on April 15” be replaced with “between April 15 and April 30” to allow for the pulse flow initiation date to vary and coincide with environmental conditions (i.e., rainfall events).

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New Rule curve figures would be needed. Original FAHCE and FAHCE Plus rule curves provided for reference.



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FAHCE Plus (represented in red text)

Original FAHCE (represented in blue text)

Intermediate between FAHCE and FAHCE Plus (represented in purple text)

Guadalupe Creek

- Upmigration Pulse: Pulse flows of 38 cfs to occur between January 1 and April 30. The storage level required to trigger a pulse flow is based on the highest winter base flow tier in the FAHCE Rule Curves (11 cfs for Guadalupe Creek). The duration of each Upmigration Pulse Flow event is 2 days.
- Upmigration Safeguard Pulse: If no prior pulse flows have occurred and reservoir storage is $\geq 1,700$ AF on March 1, then, as a one-time-event, a 38 cfs Upmigration Safeguard Pulse will occur for 2 days.³
- Outmigration Pulse: If reservoir storage is between 1,700 AF and the highest winter base flow tier (11 cfs) on April 15, then, as a one-time-event, a 20 cfs Outmigration Pulse will occur for 5 days.⁴
- Maximum Number of Pulses: The maximum number of pulse flows will be 9 events per year (January 1 through April 30).
- Winter Base Flow: Winter reservoir releases rates are five tiers based on reservoir storage (11, 8, 5, 3 and 1 cfs).
- Summer/Fall Base Flow: Summer/Fall reservoir releases to maintain the cold water management zone are based on cold water pool of 14°C.

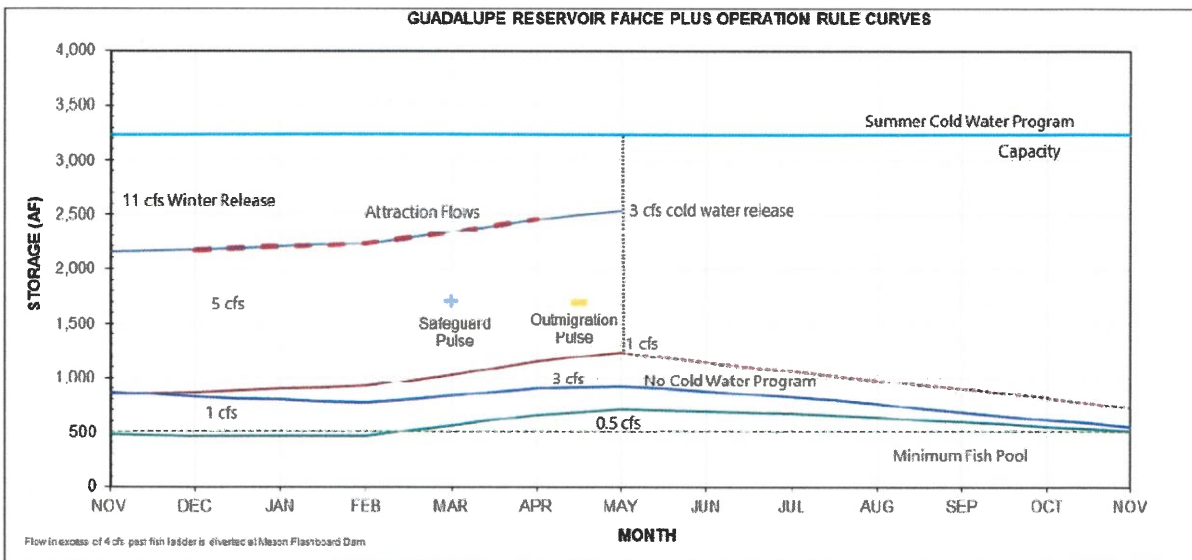
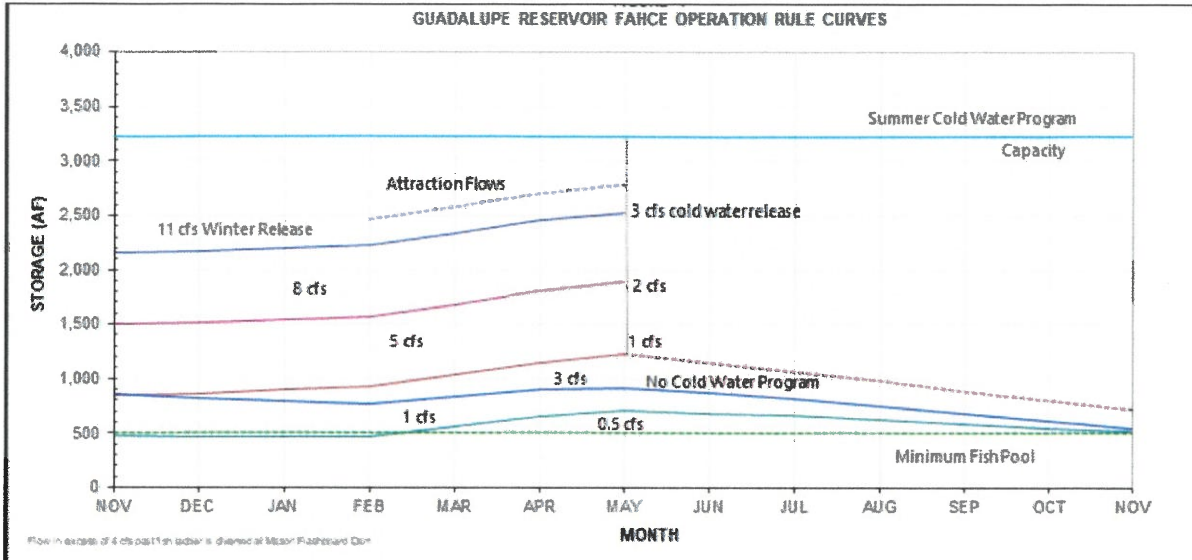
³ NMFS recommends “on March 1” be replaced with “between March 1 and March 15” to allow for the pulse flow initiation date to vary and coincide with environmental conditions (i.e., rainfall events).

⁴ NMFS recommends “on April 15” be replaced with “between April 15 and April 30” to allow for the pulse flow initiation date to vary and coincide with environmental conditions (i.e., rainfall events).

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FAHCE Plus (represented in red text)

Original FAHCE (represented in blue text)

Intermediate between FAHCE and FAHCE Plus (represented in purple text)

Alamitos Creek (Almaden Reservoir)

- Upmigration Pulse Flows: Pulse flows of 50 cfs to occur between January 1 and April 30. The storage level required to trigger a pulse flow is based on the transfer curve for the Almaden-Calero Canal. Upmigration Pulse Flows take priority over water transfers as described in 2003 FAHCE Settlement Agreement.⁵ The duration of each Upmigration Pulse Flow event is 3 days.
- Upmigration Safeguard Pulse. If no prior pulse flows have occurred and reservoir storage is $\geq 1,400$ AF on March 1, then, as a one-time-event, a 50 cfs Upmigration Safeguard Pulse will occur for 3 days.³
- Outmigration Pulse: If reservoir storage is between 1,400 AF and the transfer curve for the Almaden-Calero Canal on April 15, then, as a one-time-event, a 18 cfs Outmigration Pulse will occur for 5 days.⁴
- Maximum Number of Pulses: Maximum number of pulse flows will be 9 events per year (January 1 through April 30).
- Winter Base Flow: Winter reservoir release rates are four tiers based on reservoir storage (14, 8, 3 and 1 cfs).
- Summer/Fall Base Flow: No summer temperature management.

³ NMFS recommends “on March 1” be replaced with “between March 1 and March 15” to allow for the pulse flow initiation date to vary and coincide with environmental conditions (i.e., rainfall events).

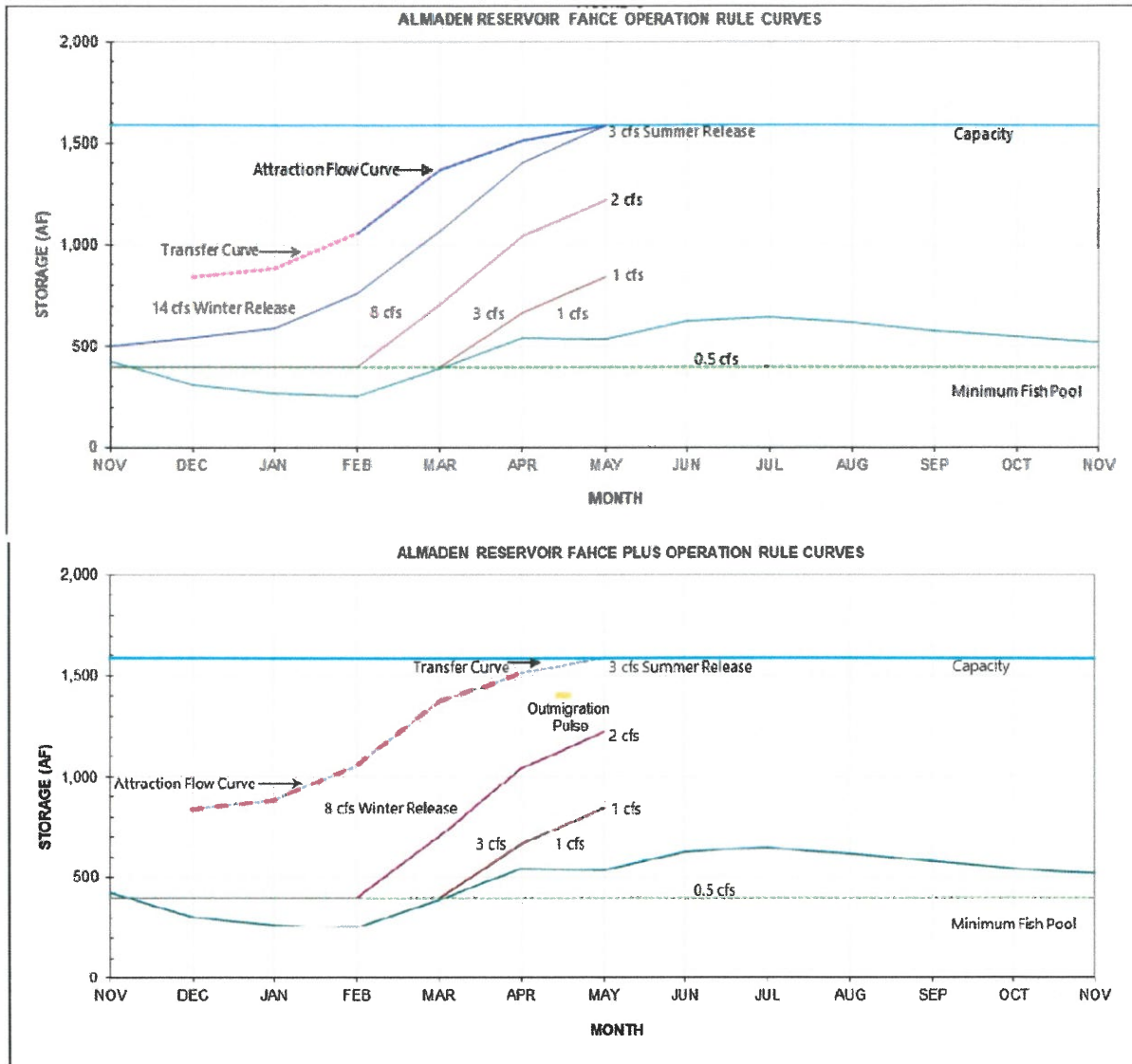
⁴ NMFS recommends “on April 15” be replaced with “between April 15 and April 30” to allow for the pulse flow initiation date to vary and coincide with environmental conditions (i.e., rainfall events).

⁵ If the Almaden Reservoir storage from December 1 to January 31 exceeds the Almaden to Calero transfer curve, water will be transferred to Calero Reservoir via the Almaden-Calero Canal. Pulse flows and water transfers to Calero may take place simultaneously provided there is adequate storage in Almaden Reservoir above the transfer curve to fully provide for a 3-day pulse event at 50 cfs and transfer water to Calero. Otherwise, if storage is less than the amount required for a 3-day pulse event and water transfers, pulse flows have priority over water transfers. (Text revised from the FAHCE Settlement Agreement to accommodate up to 9 pulse flow events)

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FAHCE Plus (represented in red text)

Original FAHCE (represented in blue text)

Intermediate between FAHCE and FAHCE Plus (represented in purple text)

Calero Creek

- Upmigration Pulse: Pulse flows of 34 cfs to occur between January 1 and April 30. The storage level required to trigger a pulse flow is based on the highest winter base flow tier in the FAHCE Rule Curves (10 cfs for Calero Creek). The duration of each Upmigration Pulse Flow event is 2 days.
- Upmigration Safeguard Pulse: If no prior pulse flows have occurred and reservoir storage is $\geq 5,000$ AF on March 1, then, as a one-time-event, a 34 cfs Upmigration Safeguard Pulse will occur for 2 days.³
- Outmigration Pulse. If reservoir storage is between 5,000 AF and the highest winter base flow tier (10 cfs) on April 15, then, as a one-time-event, a 14 cfs Outmigration Pulse will occur for 5 days.⁴
- Maximum Number of Pulses: The maximum number of pulse flows will be 9 events per year (January 1 through April 30).
- Winter Base Flow: Winter base release rates are five tiers based on reservoir storage (10, 7, 5, 3, and 1 cfs).
- Summer/Fall Base Flow: No summer temperature management.

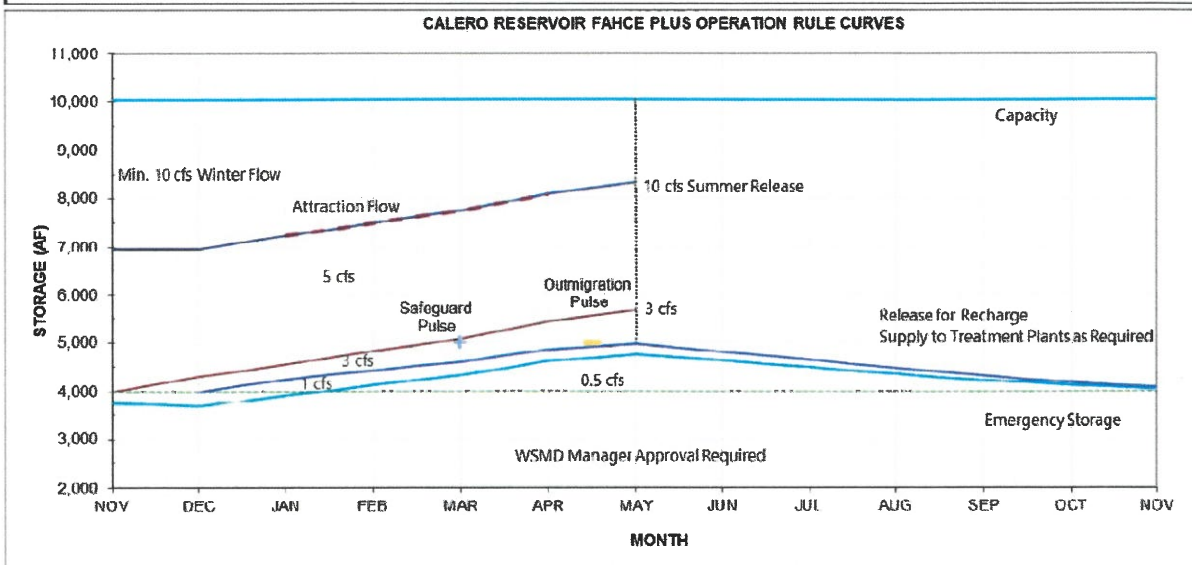
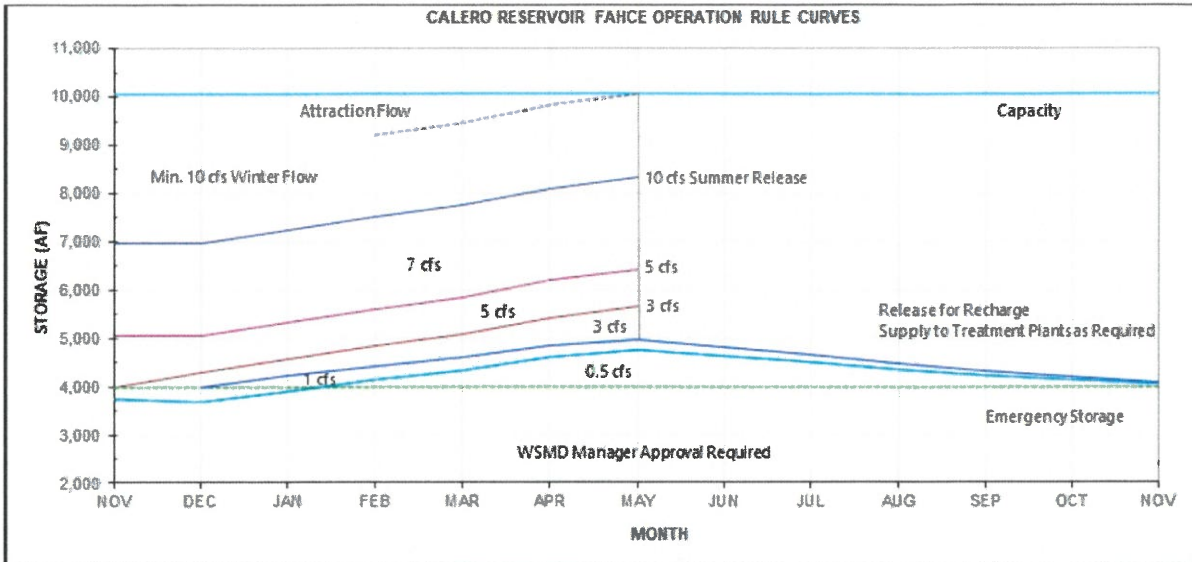
³ NMFS recommends “on March 1” be replaced with “between March 1 and March 15” to allow for the pulse flow initiation date to vary and coincide with environmental conditions (i.e., rainfall events).

⁴ NMFS recommends “on April 15” be replaced with “between April 15 and April 30” to allow for the pulse flow initiation date to vary and coincide with environmental conditions (i.e., rainfall events).

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Los Gatos Creek (Lexington Reservoir)

For the period between November 1 and April 30, when Lexington Reservoir storage is above the low storage rule curve and below the water supply rule curve, releases will be made so that there is 3 cfs at Stream Flow Station 50 (SF-50) located at Lincoln Avenue.

For the period between November 1 and April 30, when storage is above the highest winter base rule curve, releases will be made to obtain 13 cfs at SF-50.

C2. FAHCE vs FAHCE Plus Scenarios

Categories of Changes	Scenarios		Creeke			Calero
	Coyote	Stevens	Guadalupe	Alamitos		
A. Outmigration Pulse						
Timeframe	FAHCE		Feb 1 to Apr 30			
	FAHCE Plus		Feb to Apr 15			
Magnitude (cfs)	FAHCE		50			
	FAHCE Plus	60	20	20	18	7
Duration (days)	FAHCE	5		5		
	FAHCE Plus	7		5		
B. Upmigration Pulse						
Safeguard Timeframe	FAHCE		N/A			
	FAHCE Plus		Mar 1			
Maximum No.	FAHCE		2			
	FAHCE Plus		9			
Time Frame	FAHCE		Feb 1-Apr 30			
	FAHCE Plus		Dec 1-Apr 1			
Magnitude (cfs)	FAHCE		50		50	50
	FAHCE Plus	90	38	38	50	17
Duration (days)	FAHCE		5			
	FAHCE Plus	10	3	2	2	2
C. Summer Flow						
Temperature (°C) Threshold for Cold Water Pool	FAHCE	14	15	14	NA	NA
	FAHCE Plus		16		NA	NA
D. Winter Flow						
Flow Tiers (cfs)	FAHCE	NA	16, 12, 8, 5, 3, 1	11, 8, 5, 3, 1	14, 8, 3, 1	10, 7, 5, 3, 1
	FAHCE Plus	NA	16, 8, 5, 3, 1	11, 5, 3, 1	14, 3, 1	10, 5, 3, 1



For October 25, 2019 Meeting Only