

Alameda County Water District

Fish Ladder Operations and Water Stewardship (FLOWS) Program Updates



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Agenda

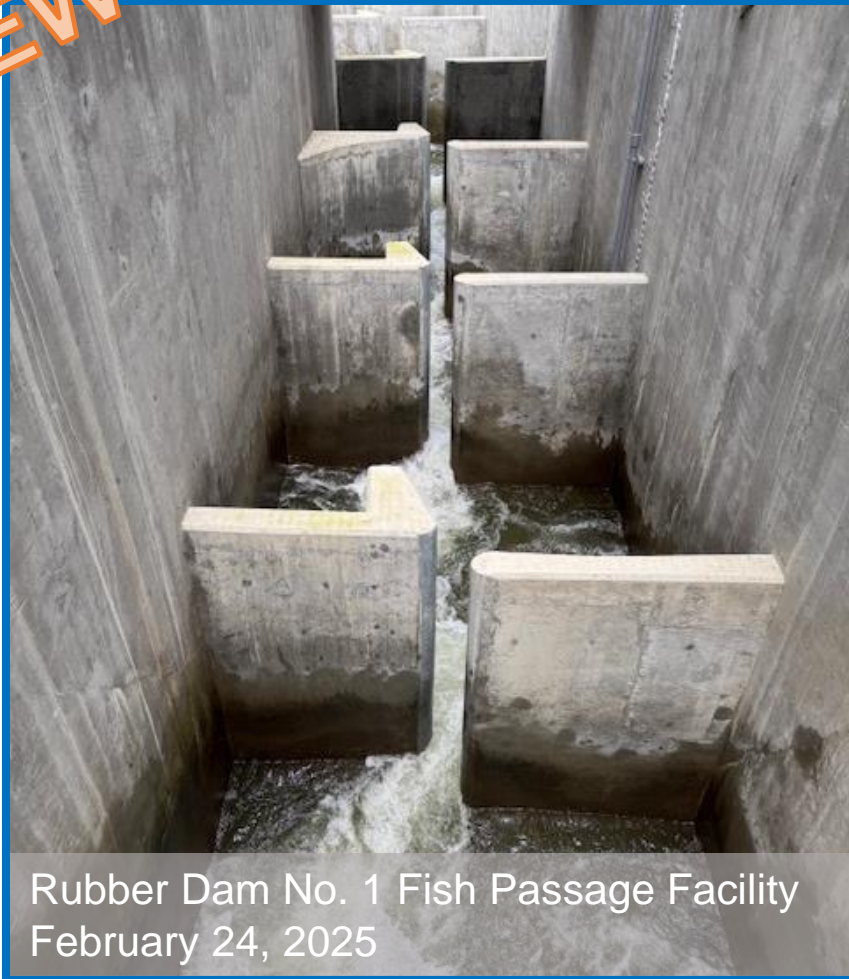
- Brief background on fish passage facilities
- Brief summary of first two years of operation
- 2025 migration season updates



Photo credit: Dan Sarka, Alameda Creek Alliance

Operation of Fish Passage Facilities

REVIEW



Rubber Dam No. 1 Fish Passage Facility
February 24, 2025

Fish Passage Facilities operations provide safe fish passage for Central California Coast Steelhead (*Oncorhynchus mykiss*, or *O. mykiss*):

- Immigration Season: January through March
- Emigration Season: April through May

Background of Fish Passage Facilities

- Two fish passage facilities in the Alameda Creek Flood Control Channel in operation since 2023
- One at Alameda Creek Water District's (ACWD) Rubber Dam No. 3 (RD3) site and one at ACWD's Rubber Dam No. 1 (RD1) site



Rubber Dam No. 1 / Drop Structure Fish Ladder Design



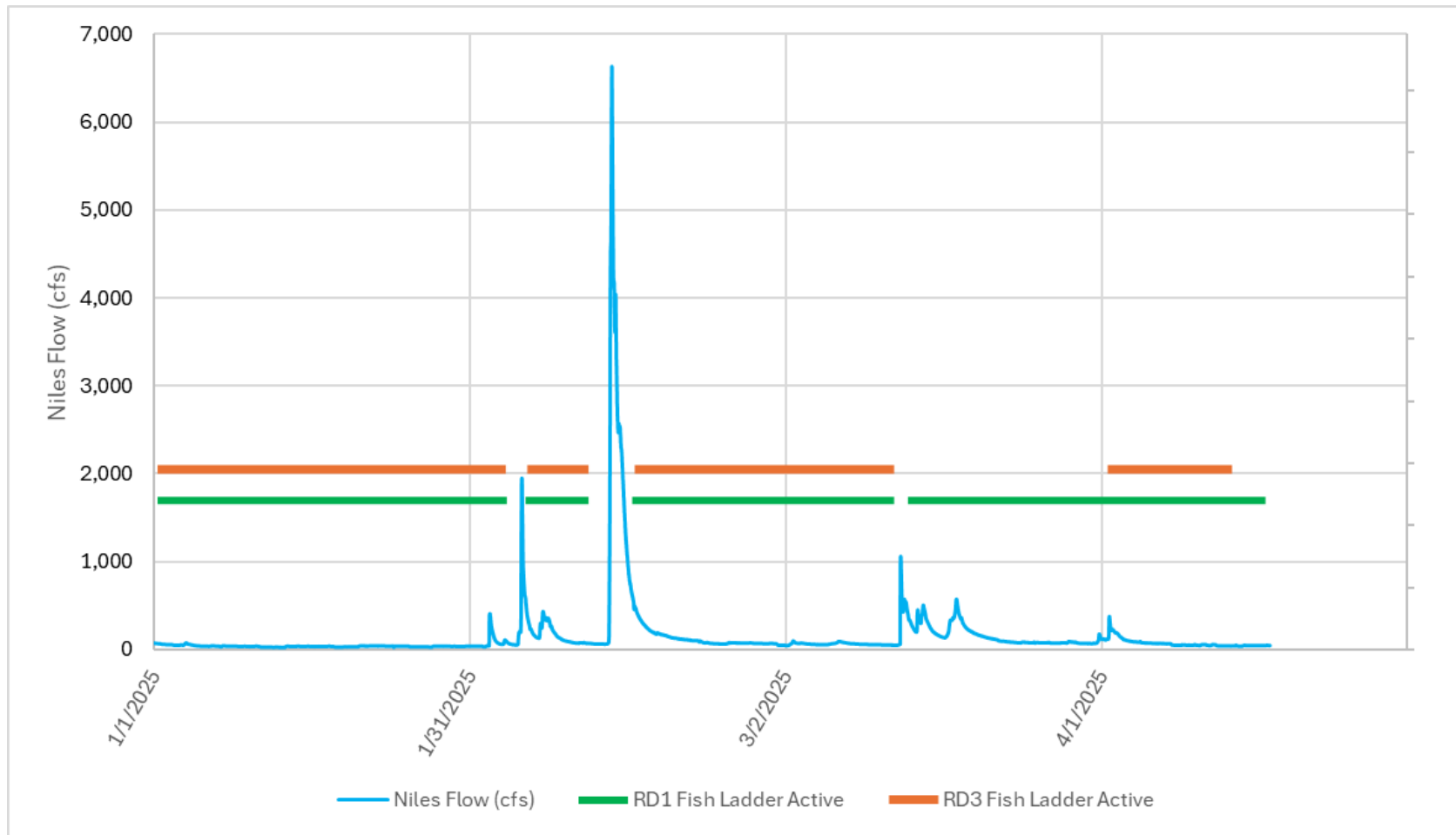
Monitoring

- Biological monitoring includes four Passive Integrated Transponder (PIT) antennas in the fish passage facility at RD1, an Adaptive Resolution Imaging Sonar (ARIS) camera (sonar camera)
- Physical monitoring includes monitoring data at the United States Geological Survey (USGS) Niles and Sequoia gages and monitoring dissolved oxygen (DO) and temperature data within the fish passage facilities and in Alameda Creek

Summary of 2023-2024 Migration Seasons

- Fall 2022: start-up testing of fish passage facilities
- 2023 season: began operation of fish passage facilities; record-breaking wet weather
 - 1 unique PIT tag detection
- 2024 season: wetter than average water year, 51 unique PIT tag detections

2025 Migration Season Updates



Ref: USGS, <https://waterdata.usgs.gov/monitoring-location/11179000/#dataTypeId=continuous-00060-0&showMedian=false&startDT=2025-01-01&endDT=2025-04-07>. Accessed April 17, 2025.

Wildlife Photo Website

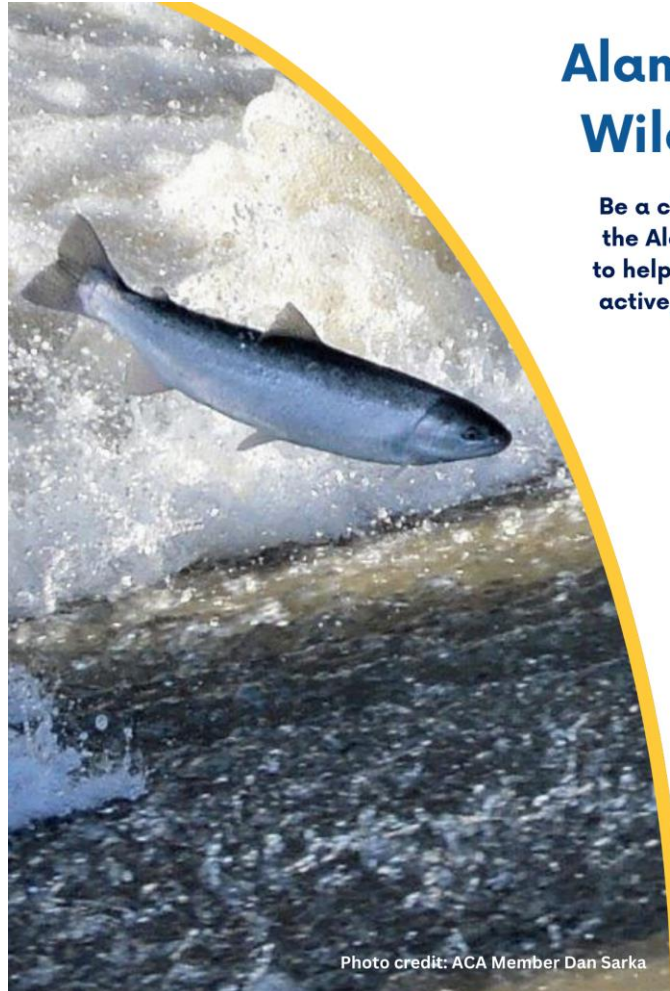


Photo credit: ACA Member Dan Sarka

Alameda Creek Fisheries & Wildlife Image Uploader

Be a citizen scientist and document fish and wildlife along the Alameda Creek trail. Take photos and upload images to help ACWD learn about animal locations, when they are active, predator-prey interactions, and the welfare of our local fisheries and wildlife.



Scan QR code to access website & upload photos



Examples of Wildlife Photos

Photo credit: Wei Luo

@ 威德工作室
WeiDE Studio



Photo credit: Dan Sarka,
Alameda Creek Alliance

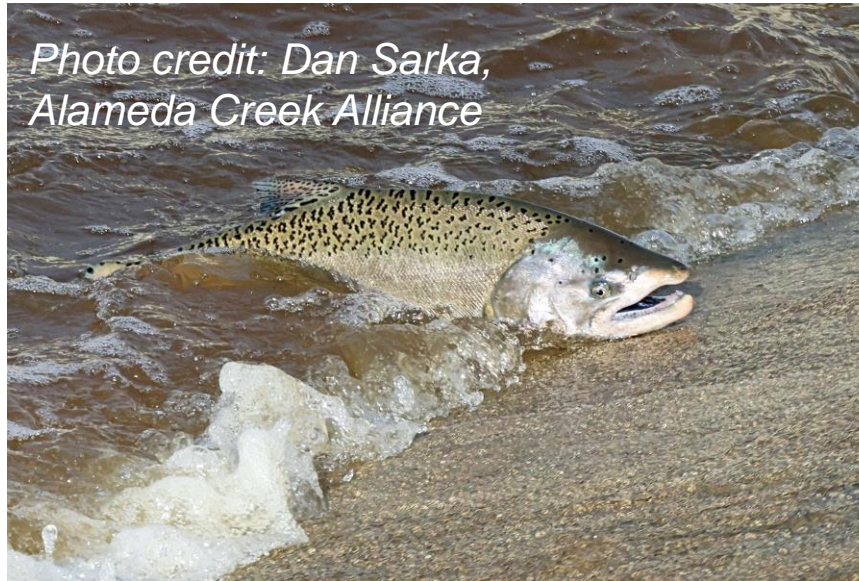


Photo credit: Harvey Trop



Successes of Fish Passage Facilities

- Since the start of operation, monitoring results show that four species/life stages of interest have successfully used the fish ladder.
 - ✓ Chinook during the immigration season
 - Chinook during the emigration season
 - ✓ Pacific lamprey during immigration season
 - Pacific lamprey during emigration season
 - ✓ Juvenile steelhead/rainbow trout during the emigration season
 - Adult steelhead/rainbow trout during the immigration season
 - Steelhead/rainbow trout kelts during the emigration season
- Data sharing with San Francisco Public Utilities Commission (SFPUC)
- Continuous collaboration and engagement with the Alameda Creek Fisheries Restoration Workgroup
- For the 2025 migration season, as of April 23, there have been 17 PIT tag detections