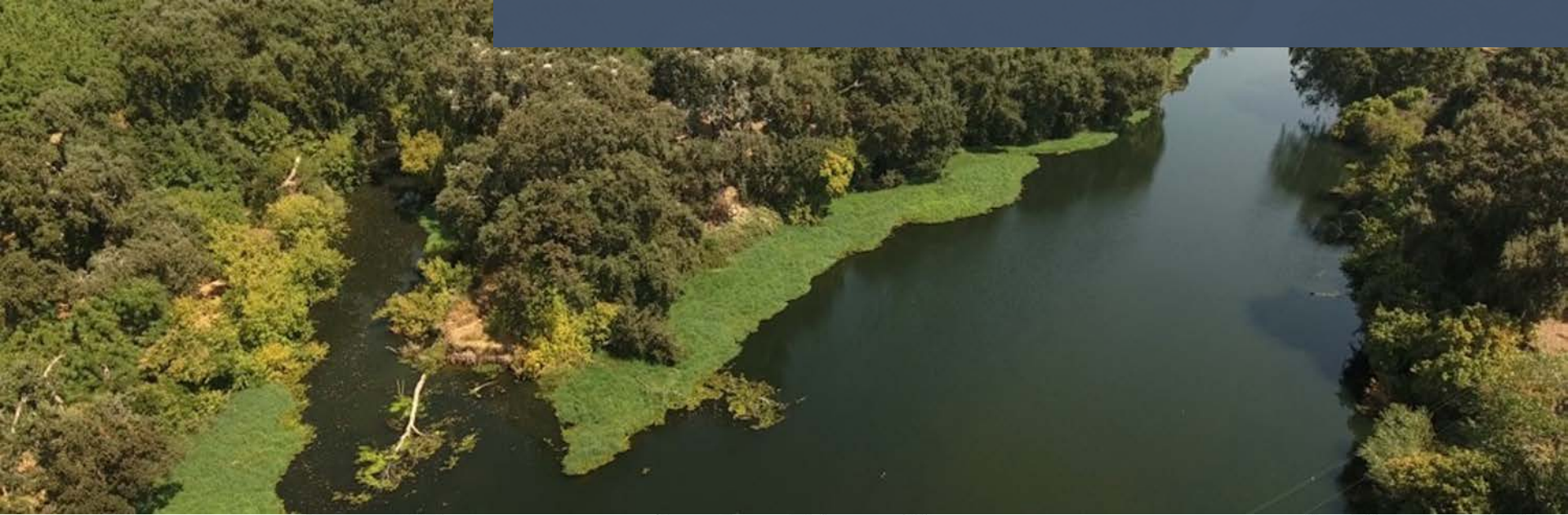




Calaveras River Habitat Conservation Plan Stakeholder Workshop

Prepared in collaboration
with:

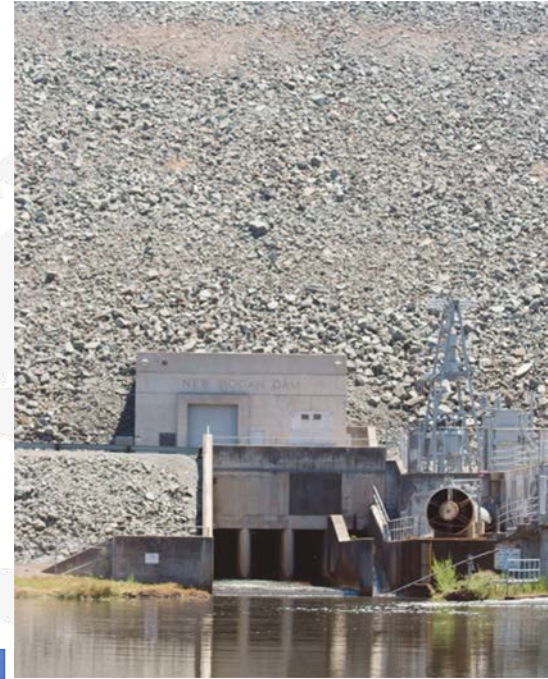
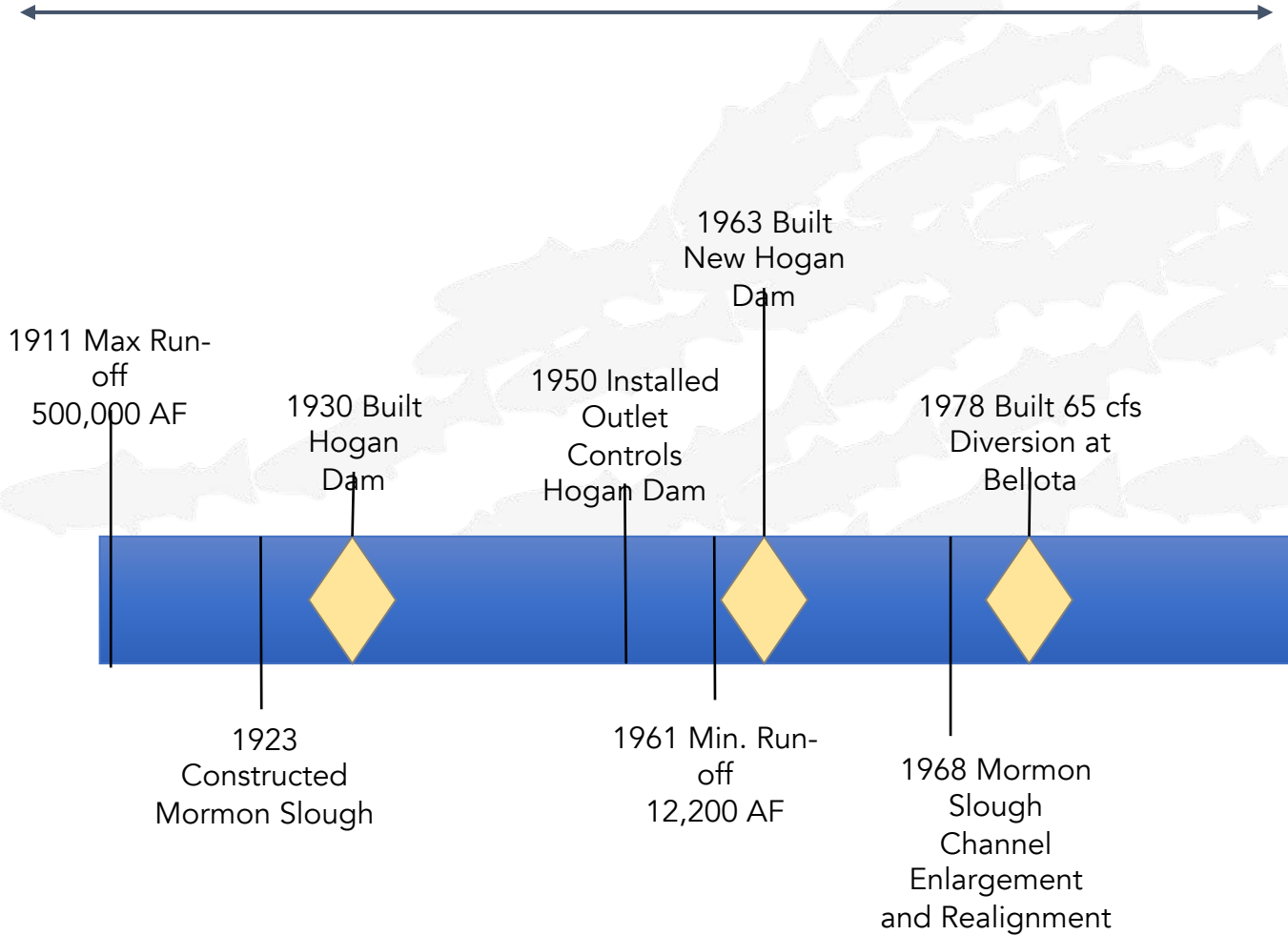




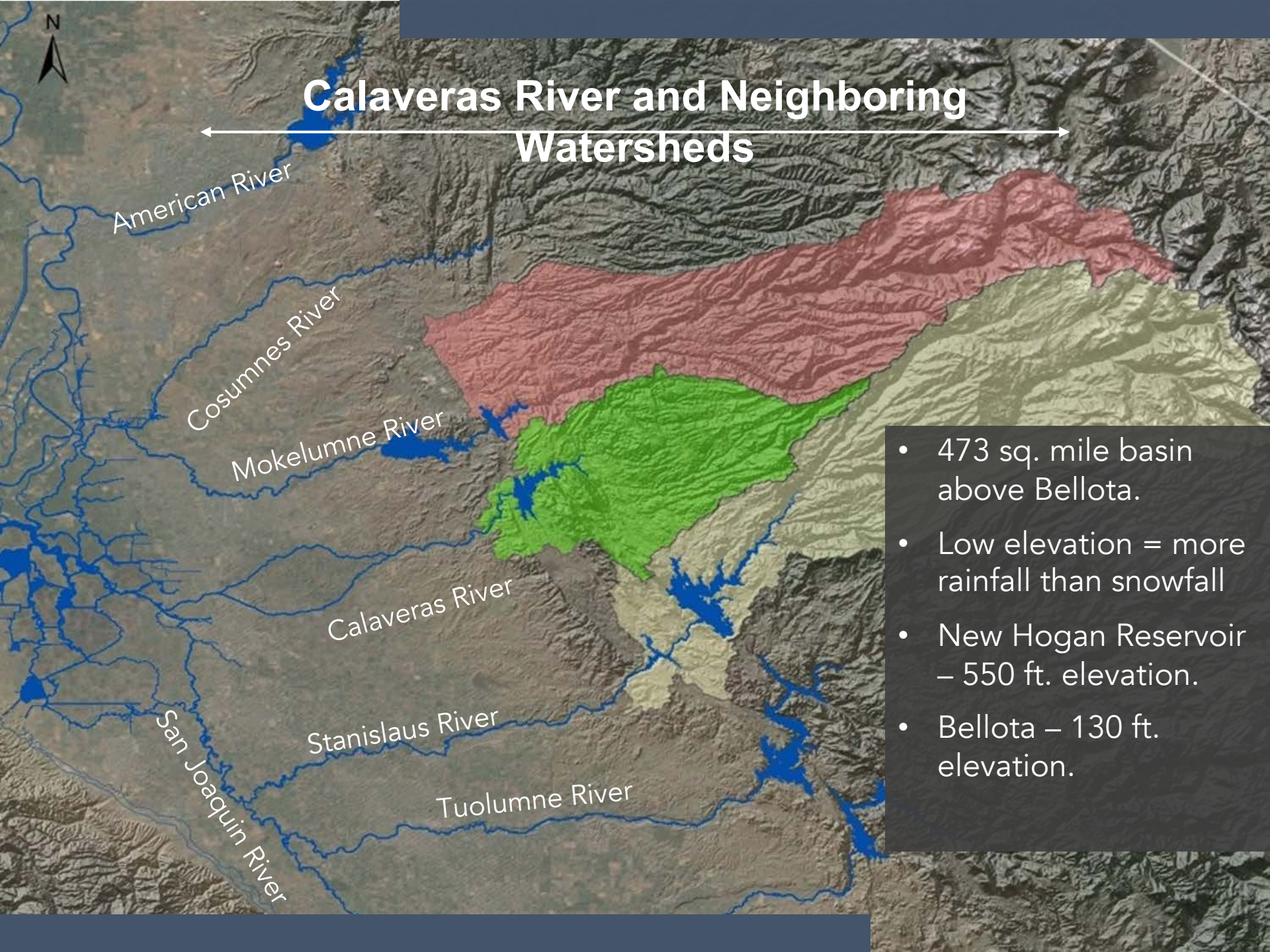
Overview

- What makes the Calaveras River unique?
- What is the Endangered Species Act (ESA) and how could it affect you?
- What are the species that drive management on the Calaveras River?
- What District operations are covered under the HCP?
- How can you help?

Calaveras River Timeline



Calaveras River and Neighboring Watersheds



American River

Cosumnes River

Mokelumne River

Calaveras River

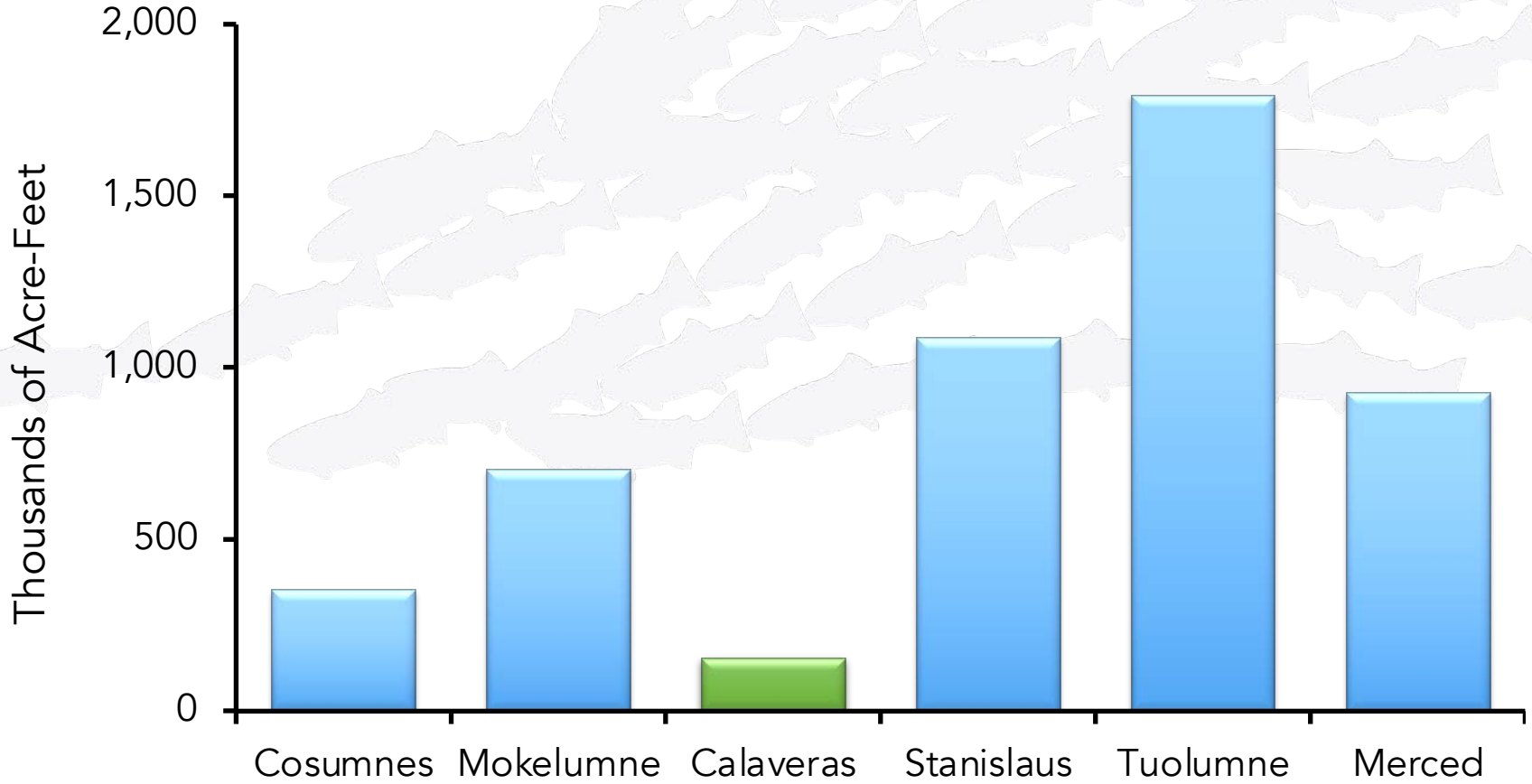
Stanislaus River

Tuolumne River

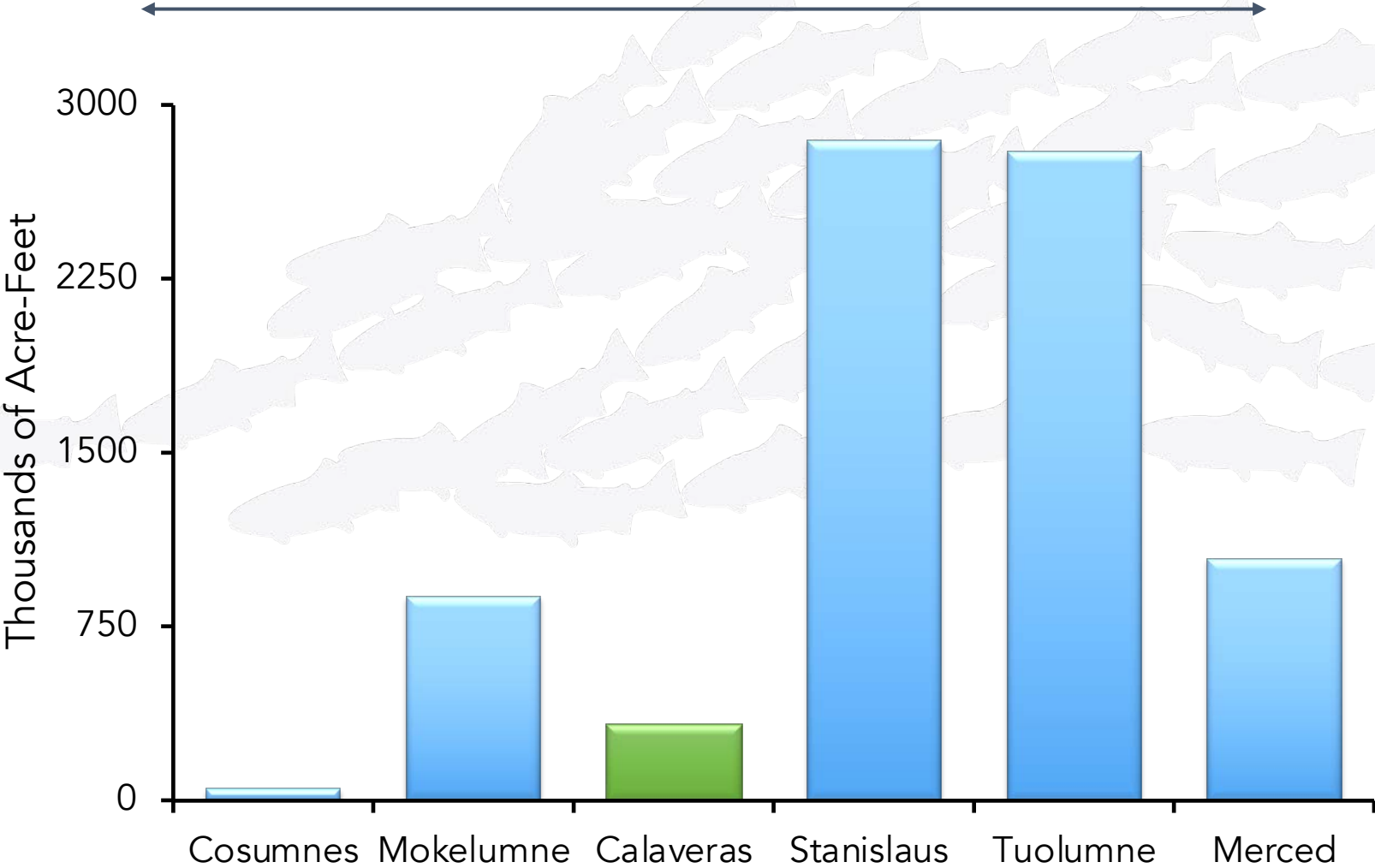
San Joaquin River

- 473 sq. mile basin above Bellota.
- Low elevation = more rainfall than snowfall
- New Hogan Reservoir – 550 ft. elevation.
- Bellota – 130 ft. elevation.

San Joaquin Basin Run-off Comparison

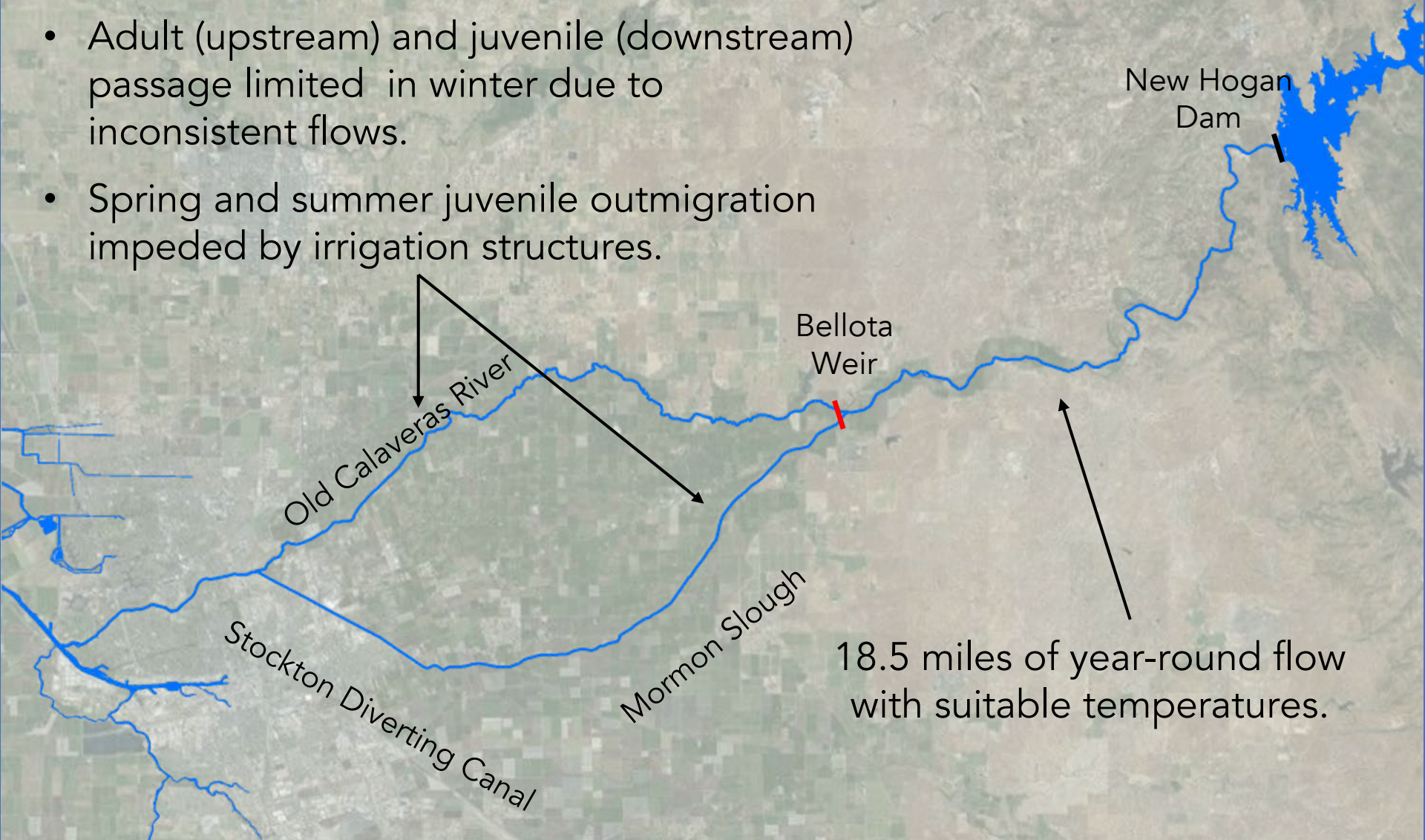


San Joaquin Basin Storage Comparison

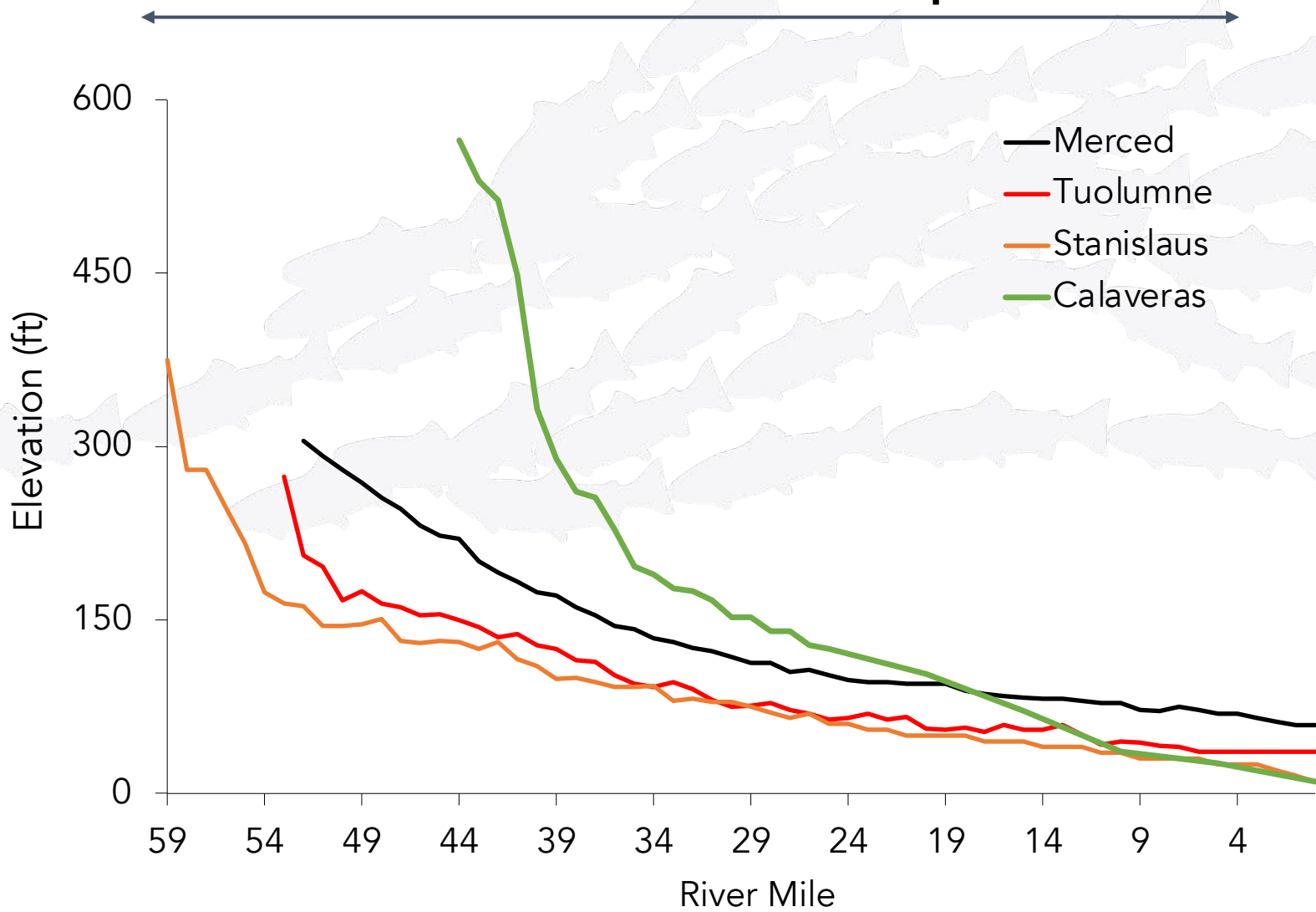


Calaveras River Characteristics Which Limit Fish Passage Opportunities

- Adult (upstream) and juvenile (downstream) passage limited in winter due to inconsistent flows.
- Spring and summer juvenile outmigration impeded by irrigation structures.



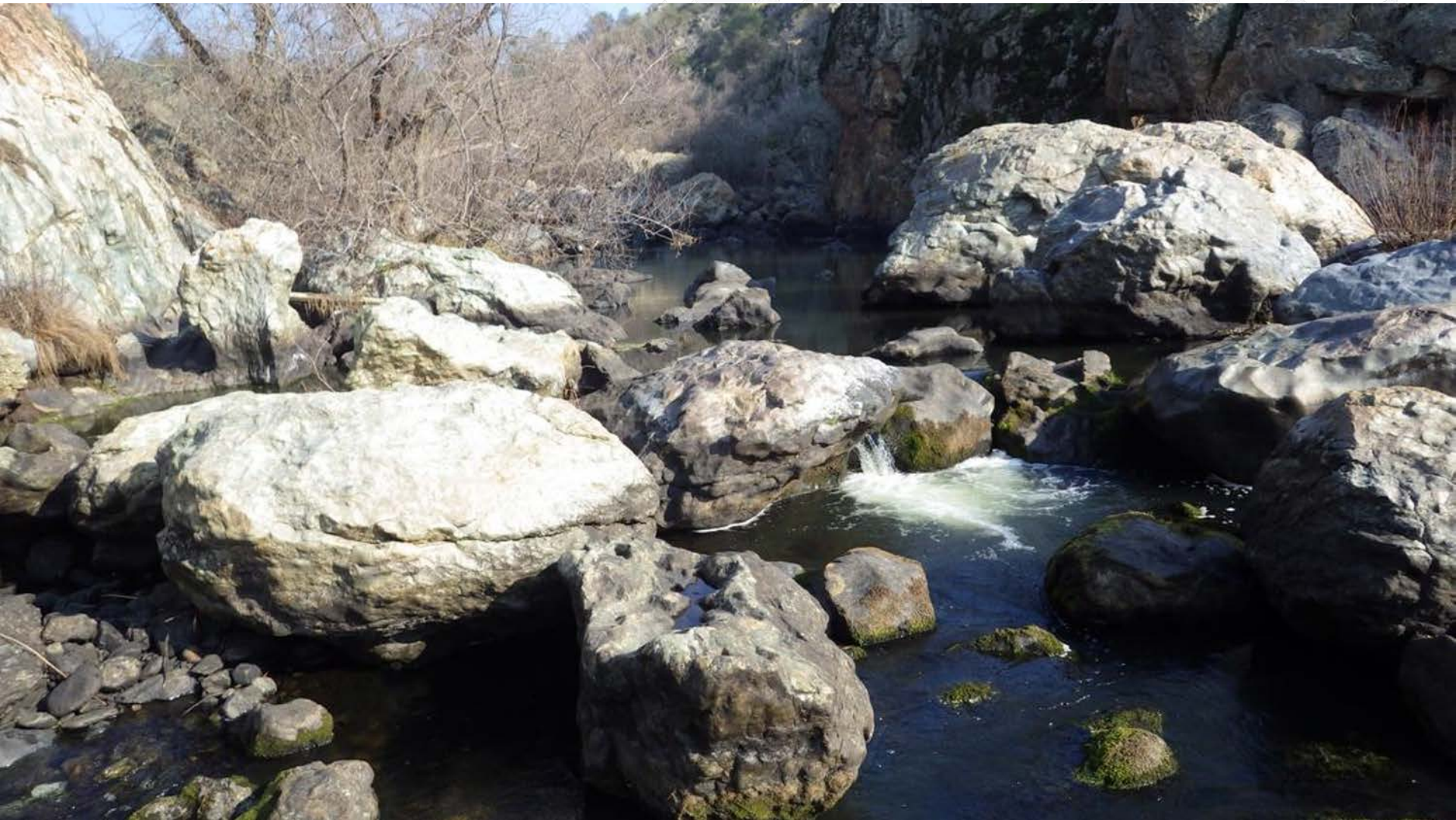
Calaveras River Gradient Comparison



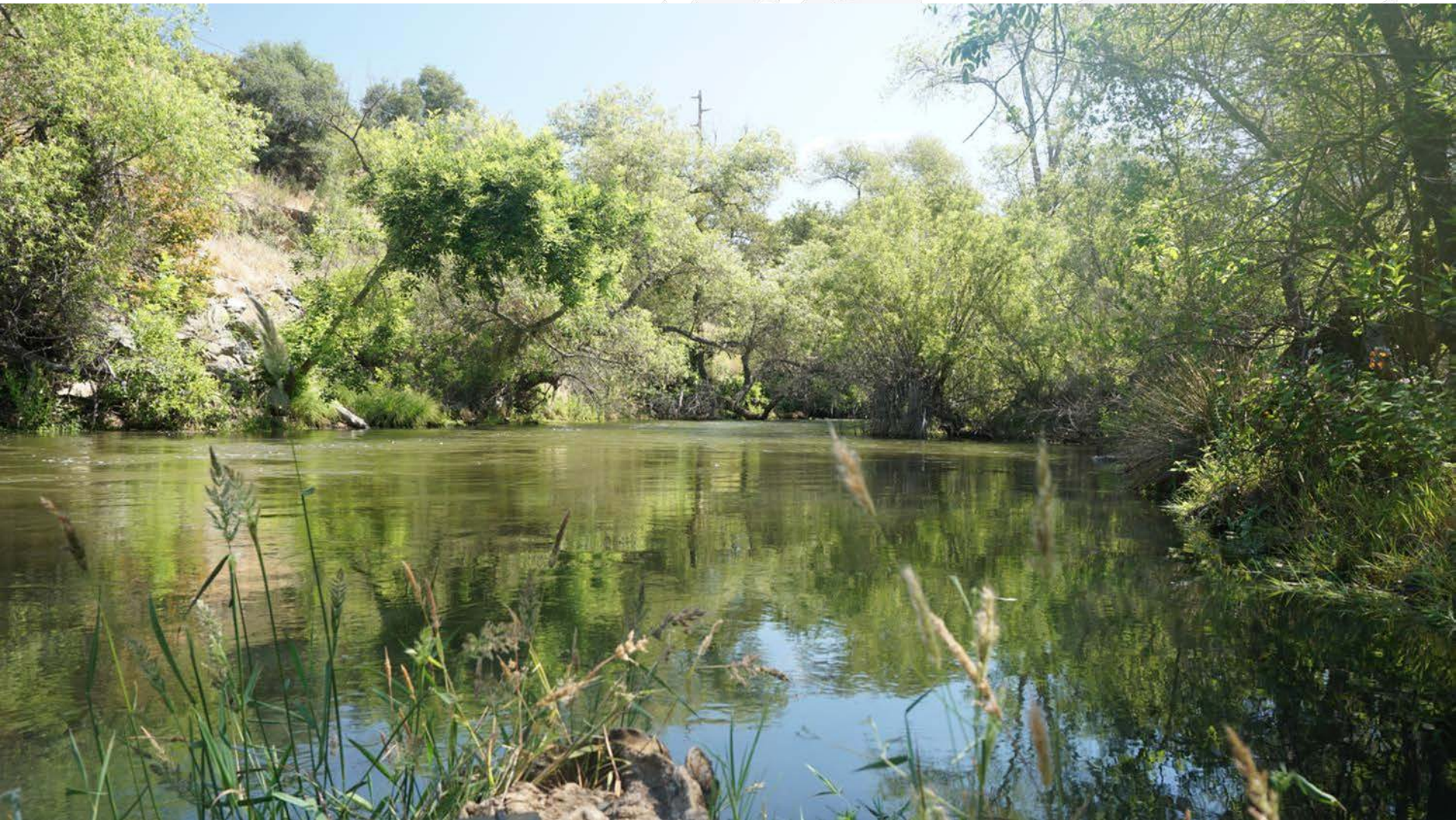
Calaveras River Canyon



Large Boulders Complex



Abundant Riparian Vegetation



Abundant Cover



Abundant Gravel



Mine Tailings



About the District | Stockton East Water District (SEWD)



- Originally formed in 1948
- Constructed New Hogan Dam in 1964
- 1970 – US Bureau of Reclamation guarantees SEWD 56.5% of New Hogan Reservoir's yield.
- 1971 – SEWD's boundaries expand; plans initiated for a new 30-million-gallon-per-day drinking water treatment plant.
- 1977 – Construction completed on Dr. Joe Waidhofer Drinking Water Treatment Plant; began operation 1978.
- Services ~143,300 acres (2014)
- Contributes up to 80% of Stockton's drinking water.



What is the Endangered Species Act (ESA)?



- The Endangered Species Act (ESA) is a federal and state law that requires protection and recovery of species listed as threatened or endangered through scientifically based planning.
- NOAA Fisheries is responsible for anadromous fish such as Chinook salmon and steelhead
 - Anadromous = fish that spawn in freshwater but live much of their life in the ocean.

Why is the ESA Important?

- It gives NOAA Fisheries authority to manage and preserve ESA-listed species.
- Management and preservation actions have potential to affect stakeholders, including:
 - Land-use and water restrictions
 - Mandatory conservation actions



How are Listed Species Protected?



- “Take” of listed species is prohibited unless authorized.
- “Take” is defined as the harassment, harm, pursuit, shooting, wounding, killing, trapping, or collection of a protected species.
- “Take” also applies to impacts to critical habitat that may kill or injure the species by impairing its ability to breed, feed, migrate, or find shelter.
- Water diversions can lead to loss of habitat and entrainment of fish, which is considered “take.”

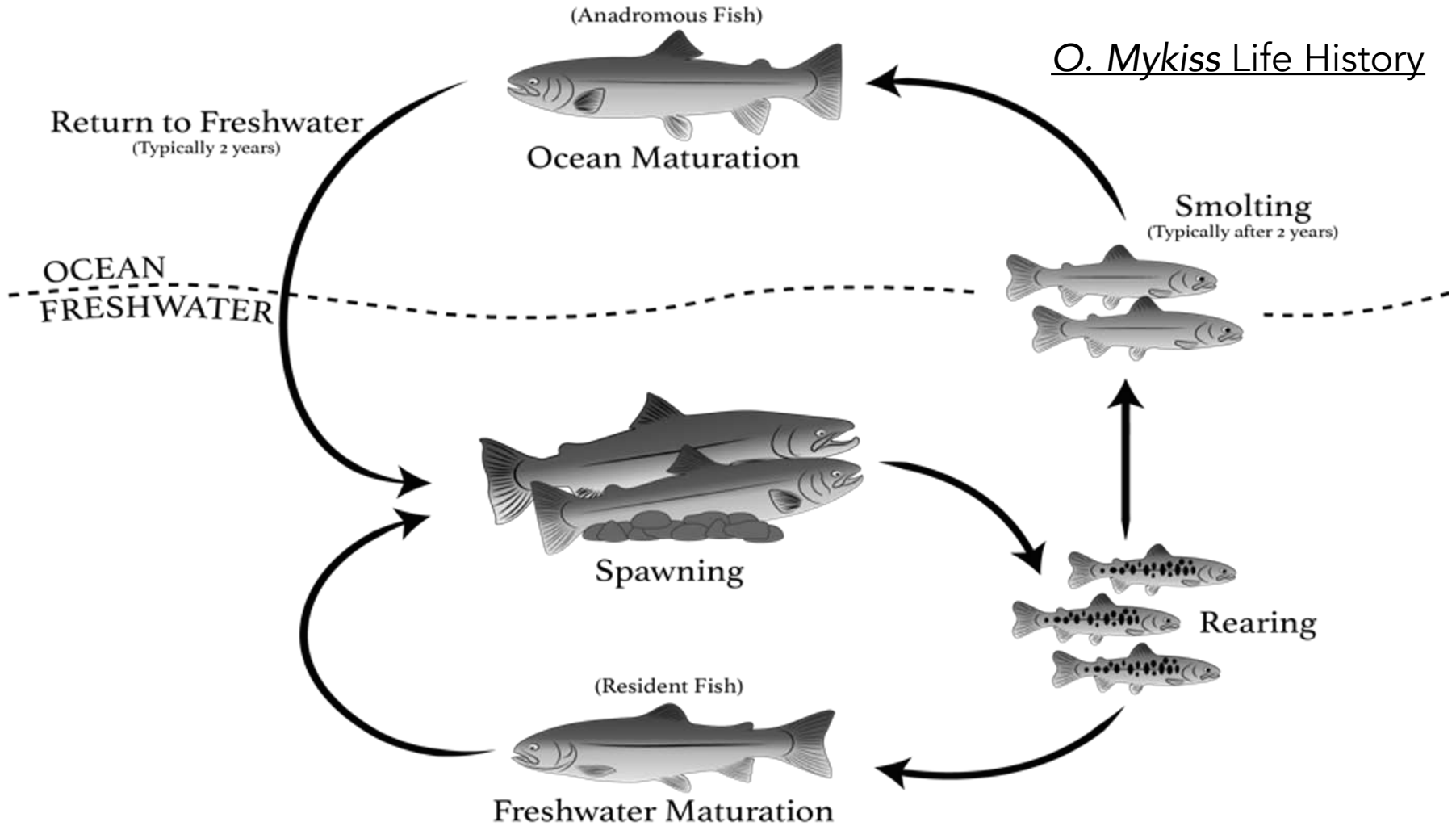
Which Species Drive Management on the Calaveras River?

California Central Valley Steelhead (*Oncorhynchus mykiss*)

- Two forms of *O. mykiss*
 - Rainbow Trout
 - Resident (Top)
 - Steelhead
 - Anadromous (Bottom)
- Only the anadromous form is protected under ESA.
- Listed as "Threatened," January 2006.
- The Calaveras HCP is specifically focused on conserving and protecting *O. mykiss*.



Which Species Drive Management on the Calaveras River?



What Species Drive Management on the Calaveras River?

Chinook salmon (*Oncorhynchus tshawytscha*)

- The HCP does not consider Chinook salmon a primary species of concern, but its activities do cover it.
- Historic use of the Calaveras unknown.
- Uses the Calaveras opportunistically, not present in all years.
- Two potential runs:
 - Spring-run (ESA listed)
 - Fall-run (Not listed)



Why is the ESA Important to Stakeholders?



- Any unauthorized “take” can result in monetary fines or even risk of imprisonment.
- Examples of “take” include polluting the river, changing the river channel, installing a dam that blocks fish passage, and diverting water without proper screening.

What is a Habitat Conservation Plan?



- A written agreement between stakeholders and NOAA Fisheries that provides legal authorization for take of ESA listed species for a period of up to 50 years.
- Stakeholders must operate within the confines of the HCP to be protected from prosecution for take.
- The HCP will cover District stakeholders for normal activities related to water diversion.
- The HCP will require the District to continue to minimize the impacts of its operations on ESA listed species.

What are the goals of the HCP?

- Maintain reliable water delivery to stakeholders by providing greater water security over a 50-year period.
- Comply with ESA laws and obtain an annual, predictable take allotment.
- Protect and manage fishery resources, particularly rainbow and steelhead trout.
- Provide a forum for stakeholder and citizen input in Calaveras River management.



Details of the HCP Process

- The District, and their biologists, worked closely with NOAA Fisheries during development for several years.
- The District has engaged with other resource agencies and stakeholders while finalizing the written plan.
- HCP approved in September 2020.
- The District will now operate within the bounds described in the HCP.



What is Covered by the HCP?

Privately-owned Diversion Facilities Operated within the Service Area



- Prioritize diversion structures and help implement fish screens at privately owned diversions to reduce risk of entrainment.
- Educate stakeholders regarding potential fish impacts from irrigation practices.
- Outreach may consist of workshops, annual newsletters, regular website updates, or social media.

What is Covered by the HCP?

Fisheries Monitoring Program



- Fisheries monitoring has been conducted annually since 2001.
- Program includes both biological and environmental monitoring.

What is Covered by the HCP?

Fisheries Monitoring Program

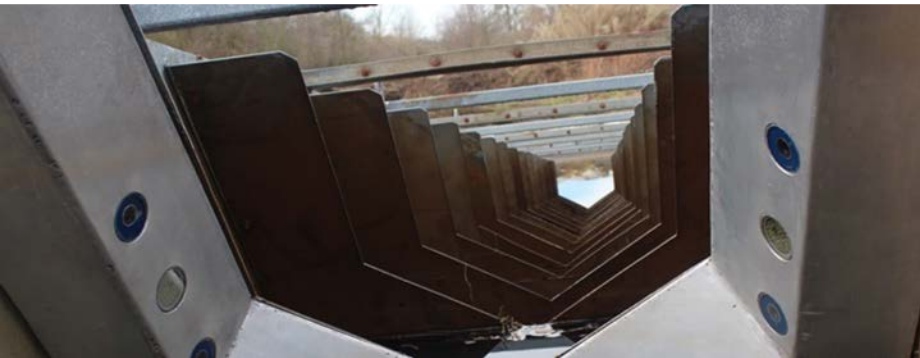
Rotary Screw Trapping (RST)

- Designed to monitor juvenile steelhead and salmon outmigration.
- Used to estimate annual abundance and migration characteristics of juvenile steelhead and salmon.
- *O. mykiss* are tagged to identify recaptures.



What is Covered by the HCP?

Fisheries Monitoring Program



Video Monitoring at Bellota Weir

- Designed to monitor adult salmon and steelhead spawning migration.
- Test effectiveness of ladder for fish passage.
- Quantify adult salmon and steelhead returns to the Calaveras River.

What is Covered by the HCP?

Fisheries Monitoring Program

O. mykiss Population Surveys

- Designed to monitor over-summer population.
- Snorkel surveys provide estimates of relative abundance and distribution of fish.
- Minimally invasive method.
- Consistent dataset allows for evaluation of environmental effects on population.



What is Covered by the HCP?

Fisheries Monitoring Program



O. mykiss Redd Surveys

- Designed to assess adult salmon and trout reproduction success.
- Redd = salmon or trout nest.
- Collect data on timing and location of spawning.
- Helps to inform temperature and flow needs of spawning fish.

What is Covered by the HCP?

Fisheries Monitoring Program

Benthic Macroinvertebrate (BMI) Sampling

- Designed to assess food availability and composition for trout and salmon.
- Can inform trends in water quality over time as BMI composition may change.
- Helps to evaluate presence of highly invasive New Zealand Mudsnail.



What is Covered by the HCP?

Fisheries Monitoring Program

Environmental Data

- Maintain temperature data loggers at numerous sites from dam to confluence.
- Routine flow reports and data collection from dam releases and at Shelton Road.



What Else Does the HCP Require?

Watershed Coordination

- Outreach events to inform general public and interested stakeholders.
- Helping to seek grants for private stakeholders (i.e., funding for fish screens)
- Regular communication with regulatory agencies.



Resources for Stakeholders

The Anadromous Fish Screen Program

- Established in 1994 as part of the Central Valley Project Improvement Act
- Incentive-based program that encourages diversion screening by providing technical assistance and cost-share funding.
- AFSP has a technical team composed of experts from federal and state agencies that provide design review and guidance to diverters
- Can provide up to 50% cost-share funding for a fish screen project



Resources for Stakeholders



The Family Water Alliance

- Operating since 1996 as a program manager collaborating with various state agencies and private contributors
- To date, have installed 40 successful fish screens
- Have raised over \$5.4 million in funding for screening efforts
- Primary objective to screen diversions, but also working to make sure landowners maintain their ability to divert
- Promote education and outreach for stakeholders regarding importance of screening

Resources for Stakeholders



USDA – Natural Resource Conservation Service

- Environmental Quality Incentives Program (EQIP) first authorized in 1996
- To date, NRCS has entered into hundreds of thousands of agricultural producers assistance contracts
- Since 1996, over \$15 billion provided in financial assistance
- Primary objectives to address natural resource concerns and deliver environmental benefits such as: improved water and air quality, conserved ground and surface water, increased soil health and reduced soil erosion and sedimentation, improved or created wildlife habitat, and mitigation against drought and increasing weather volatility

How Will Compliance Be Evaluated?

The HCP requires that the following are documented:

- Daily flow and operations records.
- Implementation of ag and municipal conservation measures.
- Completion of the Old Calaveras Headworks Facility Improvement Project.
- Schedules and implementation status for artificial structure improvement.



How Will Compliance Be Evaluated?

The HCP requires that the following are documented:

- Fall flashboard dam removal and any associated salmonid relocation; annual installation of long-term flashboard notches.
- **Prioritization of fish screens for privately owned diversions.**
- **Stakeholder Education Program activities.**
- Instream Structures maintenance operations.
- Take associated with fisheries monitoring.



How Can Stakeholders Help?

Get educated on fish and water issues

- This workshop and others
- Districts' website
- SEWD email newsletter

Provide feedback to SEWD

- Written comments, questions, concerns
- Call or write the main office
- Email from website

Phone: (209) 948-0333 Address: 6767 East Main Street Stockton, CA 95215

Calendar Employment Media Corner Bids/Proposals

Stockton East Water District
PROVIDING SERVICE SINCE 1948

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Farmington Groundwater Recharge & Seasonal Habitat Program

INTRODUCTION:
The Stockton East Water District (SEWD) provides surface water for both agricultural and urban uses. By providing surface water for agricultural irrigation, the District supports San Joaquin County's agricultural industry, which is the area's leading economic activity.

Latest News & Press Releases

- 2017 Water Rates APRIL 4, 2017
- Reclamation Ann... MARCH 10, 2017
- Feds: Full Water S... MARCH 10, 2017

How Can Stakeholders Help?



- To the extent possible, delay activities that will affect fish passage in the spring.
- Conserve water resources using best practices.
- Screen diversions.
- Stay involved!

Summary

- The District worked closely with NOAA Fisheries to obtain ESA take authorization for routine maintenance operations and temporary construction activities.
- All stakeholders are protected from ESA violations if their activities are consistent with normal practices described in the HCP.
- The HCP is a long-term agreement (50 years) that will require the District to manage fisheries resources.

