



## It Takes a Village: How Teamwork Makes Restoration Work in the Sunol Valley

### Project Permitting Case Study

#### *Project Summary*

The Sunol Valley Fish Passage Project on Alameda Creek was a multi-partner effort led by CalTrout and PG&E on land owned by the San Francisco Public Utilities Commission (SFPUC). Nestled between two active quarries, the project removed a long-standing fish passage barrier created when a concrete erosion control mat was installed over a 36-inch PG&E gas transmission pipeline in the 1960s; channel migration later exposed the line, and the concrete mat created a seven-foot hydraulic drop and velocity barrier that blocked migration for most flows and life stages of Central California Coast Steelhead, Chinook salmon, and lamprey species. To eliminate the barrier, the pipeline was relocated 100 feet downstream and buried 20 feet underground, after which CalTrout regraded the channel, restored natural alluvial processes, and implemented watershed-sourced native revegetation. This work reopened more than 20 miles of high-quality upstream habitat identified by NOAA as having some of the highest intrinsic potential for Steelhead recovery. This case study will elaborate on the details of the Alameda Creek project, focusing on the permitting experience to bring the process to completion.

#### *Project at-a-Glance*

**Title:** Sunol Valley Fish Passage Project at Alameda Creek

**Applicant:** California Trout

**Partners:** McBain Associates-Applied River Sciences, PG&E, San Francisco Public Utilities Commission, DeSilva Gates Aggregates, Hanford ARC, Alameda Creek Alliance, NOAA, Sequoia Ecological Consulting, Stanec Consulting Services, Martin Marietta Materials, GHD, CDFW, East Bay Regional Parks District

**Project Funding Provided By:** PG&E, NOAA Fish Passage Program, PG&E’s Bay Area Steelhead Mitigation Bank, Regional Water Control Board, private foundation funding

**Groups Conducting Monitoring:** California Trout and Sequoia Ecological Consulting

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## Species Benefitted

- Central California Coast Steelhead (*Oncorhynchus mykiss*)
- Chinook Salmon (*Oncorhynchus tshawytscha*)
- Pacific Lamprey (*Entosphenus tridentatus*)
- Western River/Brook Lamprey (*Occidentis ayresii*)
- Northwestern Pond Turtle (*Actinemys marmorata*)
- Sacramento Sucker (*Catostomus occidentalis*)
- California roach (*Hesperoleucus symmetricus*)
- Sacramento Pikeminnow (*Ptychocheilus grandis*)
- Prickly Sculpin (*Cottus asper*)
- Crotch's Bumble Bee (*Bombus crotchii*)
- Loggerhead Shrike (*Lanius ludovicianus*)
- Green Heron (*Butorides virescens*)
- Anna's hummingbird (*Calypte anna*)
- Common Yellowthroat (*Geothlypis trichas*)

## Permitting Approach

The project required a coordinated suite of federal, state, and local permits, beginning with San Francisco Public Utility Commission's internal Project Certificate, which served as the landowner authorization. CEQA compliance was completed through the Statutory Exemption for Restoration Projects (SERP), with San Francisco Planning as lead and supported by CDFW's Cutting the Green Tape Strike Team, while in-stream work was authorized under a CDFW Lake and Streambed Alteration Agreement (LSAA). The project also secured a CDFW Restoration Consistency Determination (CD) to obtain state incidental take coverage aligned with the federal Programmatic Biological Opinions (PBOs) issued by USFWS. At the federal level, the project used Nationwide Permit 27 from the U.S. Army Corps of Engineers, with NEPA compliance provided through NOAA as the project funder. Finally, the Regional Water Board issued a 401 Water Quality Certification through the Statewide Restoration General Order (SRGO), and PG&E relied on its existing NPDES permit for groundwater discharge associated with pipeline excavation. At the local level, the project necessitated an Alameda County Grading Permit and Watercourse Permit through the Alameda Flood Control District that required a substantial refundable bond.

## Permitting Pathways Used

The permits required by any restoration project depend on the nature of the project, its size, likely impacts, species present in the area, and the location. This project required a coordinated suite of federal, state, and local permits.

### ***SFPUC Project Certificate (Landowner Authorization)***

Because the entire project occurred on land owned by the San Francisco Public Utilities Commission (SFPUC), securing an SFPUC Project Certificate was the essential first step and a prerequisite for all other permits. This internal authorization functioned much like a streamlined Lake and Streambed Alteration Agreement (LSA), establishing requirements for biological monitoring, fire prevention, vegetation sourcing, construction protocols, and site access, therefore underscoring SFPUC's central role in shaping project timing and compliance. The certificate also ensured that all restoration and construction activities aligned with SFPUC's broader watershed stewardship goals, making their participation imperative not only for permitting but for project design, revegetation planning, and long-term site management.

Here are some resources to understand the role that SFPUC plays in restoration projects taking place in the San Francisco area:

- [SFPUC Web Page](#)

## Table 1: Project Details

For more information see [Sunol Valley Fish Passage Project Web Page](#)

Name	Date	Treatment	Pathways Used	Funding
Sunol Valley Fish Passage Project at Alameda Creek	2025	Removal of erosion control mat, relocation of gas pipeline, regrading of stream channel and revegetation.	SFPUC Project Certificate SERP CDFW CD USFWS PBO USACE 27 401 SRGO	\$15 M total PG&E: \$8.5 M for pipeline relocation NOAA Fish Passage Program: \$5 M Private foundation funding, PG&E's Bay Area Steelhead Mitigation Bank, and Regional Water Control Board: \$1.5 M

### *CEQA – Statutory Exemption for Restoration Projects (SERP)*

The California Environmental Quality Act (CEQA) is California's primary environmental review requirement, ensuring that public agencies understand and disclose the potential environmental effects of a project before approving it. For a project like the Sunol Valley Fish Passage Project which occurred on public land and involving in-stream construction and requiring multiple state and federal permits, CEQA provides the legal framework that agencies must follow to evaluate environmental impacts, consider alternatives, and identify mitigation measures where needed. CEQA compliance is also a prerequisite for many other permits: agencies such as CDFW, the Regional Water Board, and the U.S. Army Corps cannot issue their approvals until CEQA is complete. In this case, CEQA was completed through the Statutory Exemption for Restoration Projects (SERP), which allowed the project to move forward efficiently while still meeting the state's requirements. The San Francisco Planning Department (SF Planning) acted as the CEQA lead for this project. This was SF Planning's first SERP and thus it required extensive coordination with CDFW's Cutting the Green Tape Strike Team and shepherding by California Trout, particularly around tribal engagement requirements and understanding the differences between SERP and traditional CEQA categorical exemptions. Here is the [SERP concurrence](#) for the project.

Here are some more resources to understand CEQA and SERP:

- [CDFW CEQA Web page](#)
- [California Governor's Office of Planning and Research CEQA 101](#)
- [Accelerating Restoration CEQA Web Page](#)
- [CDFW SERP Web Page](#)



## ***CEQA – Statutory Exemption for Restoration Projects (SERP)***

The CDFW Lake and Streambed Alteration Agreement (LSAA) is a state permit required for any project that will divert, obstruct, or alter the natural flow, bed, bank, or channel of a river, stream, or lake. The Sunol Valley Fish Passage Project involved major in-channel excavation, channel regrading, pipeline removal, and restoration of alluvial processes. CalTrout obtained a traditional LSAA through CDFW's Cutting the Green Tape Strike Team, and the permit covered both CalTrout's restoration activities and PG&E's pipeline relocation work. The LSAA established conditions for construction timing, sediment and erosion control, species protection, fish rescue, revegetation, and post-project monitoring. CDFW later offered to convert the project to a Restoration Management Permit (RMP). The team would have been interested to try the recently expanded RMP, which went into effect on January 1, 2025, and could have been used instead of an LSAA, but they proceeded with the LSAA because construction timelines were already set and ready to begin.

Here are some more resources about LSA Agreements:

- [CDFW LSA Web Page](#)
- [Restoration Management Permit \(RMP\) Web Page](#)



*(Above)* Aerial image of the project site, with the utility crossing and aquatic connectivity barrier in the center of the image.



### ***CDFW Restoration Consistency Determination (CD)***

Restoration Consistency Determination is another permitting pathway that the Cutting the Green Tape Strike Team administers. A CD is used to obtain state incidental take coverage for all species covered under an individual project biological opinion or certain Programmatic BOs issued by NMFS and USFWS. A Restoration CD cannot be used to authorize take of [Fully Protected Species](#).

**According to Claire, this was one of the fastest and most beneficial permits obtained for the project. “The CD was free, simple, and fast... we got full coverage!”**

The species covered by the CD for this project are: California Tiger Salamander - Central California Distinct Population Segment (DPS), Foothill Yellow-Legged Frog - Central Coast DPS, and Alameda Whipsnake.

Here is a resource for understanding CDs and How Cutting the Green Tape can help you get one:

- [CDFW Cutting the Green Tape CD Web Page](#)
- [Accelerating Restoration CD Web Page](#) – lists the USFWS and NMFS PBOs and dually listed species for each PBO that the CD can be used with.

### ***State Water Resources Control Board (Water Board) - Statewide Restoration General Order (SRGO)***

Obtaining the 401 Water Quality Certification from the State Water Resources Control Board was the final, and most delayed, step in the project’s permitting sequence. Although the team had been coordinating with Water Board staff for over a year, the certification was delayed. As Claire described, the team was “biting our nails... even though we’d been working through the process with them for a long time,” underscoring how bottlenecks can occur even for well-prepared restoration projects and the need to start engaging with the Water Board immediately. The [401 Certification](#) (issued just days before construction mobilization!) ultimately confirmed that the project’s in-stream work, sediment management, and construction methods would comply with state water quality standards. PG&E’s existing NPDES permit covered groundwater discharge associated with the deep pipeline excavation, allowing the team to avoid seeking a separate discharge permit.

Here are more resources on Clean Water Act Section 401:

- [EPA Section 401 Web Page](#)
- [State Water Resources Control Board 401 Web Page](#)
- [Sustainable Conservation SRGO Web Page](#)



## The Permitting Experience

### *Early, Personal Relationships with Agency Staff are Essential*

Building rapport with agency staff early, well before submitting applications, was the single most important factor in keeping the 18-month permitting process on track. Claire noted that because she and the CDFW reviewers had already established a working relationship, “we were getting instant responses,” even during high pressure periods. This trust allowed for real time problem solving, quick clarifications, and a shared sense of urgency. Use pre-meetings to establish a direct point of contact, confirm the correct permitting pathways, identify potential bottlenecks, and clarify expectations for deliverables

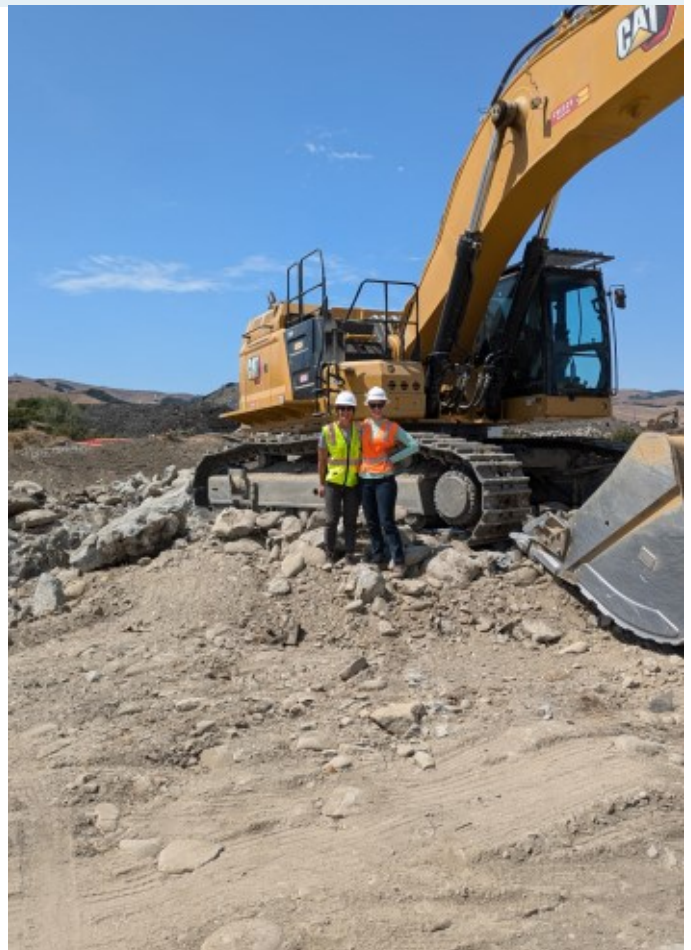
**Tip: Schedule pre-application meetings with every permitting agency, even if you think you already understand the requirements.**



### *Cutting the Green Tape Staff were Pivotal in Navigating State Permits*

CDFW’s Cutting the Green Tape (CGT) team can help determine what streamlined permitting pathways your project is eligible for. They can conduct critical internal coordination across CDFW programs and troubleshoot any issues that arise. Most importantly, they can provide continuity when staff turnover inevitably happens. For this project, CGT went above and beyond coordinating the LSAA, guiding SF Planning through its first SERP, and issuing the CD quickly.

**Tip: Treat the CGT Strike Team as strategic partners, not just reviewers.**



## *Partnering with Utilities Requires Additional Coordination and Flexibility*

Because CalTrout permitted both the restoration work and PG&E's pipeline relocation, they had to ensure that permit conditions were feasible for pipeline engineers and construction crews. This required iterative review of permit language and close coordination during implementation. It also required separating the different aspects of the project in space and time to avoid mixing up management roles, liabilities, oversight, and reporting. This prevented conflicts between permit conditions and construction realities, reducing the risk of costly redesigns or delays.

**Tip: If your project involves a utility or other non-restoration partner, involve their engineers and compliance staff early in permit development.**

## *Landowner Requirements Can Significantly Shape Restoration Design*

Landowners may have specific requirements for internal approval processes, monitoring expectations, construction windows, and access restrictions and sometimes these may be in conflict with or significantly constrain achievement of restoration goals and permit requirements. SFPUC's strict requirements for plant sourcing, nursery selection, and revegetation methods required major adjustments to the restoration plan. These constraints were not fully understood until the team was deep into design and significantly impacted the overall cost of the project Tip: Lean on experienced partners for smooth implementation.

**Tip: Engage landowners early to understand their specific requirements.**



*The regraded channel on Alameda creek after project implementation.*

## ***High Value Ecological Benefits Attract Agency and Funder Support***

Over a decade in the making, this project opened more than 20 miles of priority Steelhead habitat, aligned with NOAA's recovery plan, and was on many agencies lists of priorities. Funders were motivated to help overcome obstacles and once momentum was built, additional funding flowed in, and agencies prioritized the project.

**Tip: Highlight the ecological significance of your project in every permit application and agency meeting.**



(Above) Pacific Lamprey (*Entosphenus tridentatus*) in Alameda creek. The regraded channel after project implementation. Note native riparian vegetation planted surrounding the creek.



## *Having Non-Traditional Partners Can Be Really Useful*

The project footprint overlapped with land leased to two active quarries, DeSilva Gates and Martin Marietta Materials, making their cooperation essential for implementation. Because equipment, materials, and personnel had to move through their properties, the quarries played a critical role in establishing access routes, staging areas, and workable construction windows. As Claire noted, they were “super instrumental in helping figure out logistics and allowing us to move through their property and disrupt their operations for about six months.” Their willingness to temporarily adjust operations not only made construction feasible but also reduced the need for additional access permits, minimized conflicts, and demonstrated unified local support to regulators. Additionally, the quarries provided equipment and in-kind services such as water, gravel, rock, refueling, security, and safety measures. One quarry provided funding to the project as well

Tip: Schedule pre-application meetings with every permitting agency, even if you think you already understand the requirements.

**Tip: Landowner participation is not a box to check, it is a core component of project success.**

## *Contractors as Embedded Team Members*

Rather than operating as separate entities, contractors were full project partners. Claire emphasized that CalTrout “always gives credit” to contractors because they are integral to the project’s success. This collaborative contractor model allowed the team to adapt quickly to field conditions, regulatory requirements, and landowner constraints.

**Tip: Large, multi-partner restoration projects require a team-based management approach that treats every participant—contractors, landowners, utilities, and agencies—as a full partner.**

*(Below) Habitat on Alameda Creek*



## More Permitting Resources

[\*Sustainable Conservation Webpage of Pathways Listed by Agency or Authority\*](#)

[\*Sustainable Conservation Essential Guide for Accelerated Restoration Permitting\*](#)

## Sustainable Conservation

Sustainable Conservation advances the collaborative stewardship of California's land, air, and water for the benefit of nature and people.

Sustainable Conservation developed Accelerating Restoration, a website designed to help restoration project proponents in California find and understand how to use efficient permitting pathways for their aquatic and riparian habitat restoration projects.

- [Permitting pathways by agency](#)
- [Alphabetical list of all accelerated pathways](#)
- [Examples of projects that used accelerated permits](#)

## The California Fish Passage Forum

**The California Fish Passage Forum is a collaborative partnership formed among federal and state agencies, and non-profits to protect and revitalize anadromous fish populations in California by promoting collaboration among public and private sectors for fish passage improvement projects and programs.**

The Forum supports anadromous fish populations by directly funding barrier removals, habitat enhancements, fish passage assessment, monitoring and research projects, facilitating collaboration between agencies and restoration nonprofits, and guiding the development and support of science and data products related to fish passage restoration, such as the California Passage Assessment Database (PAD). Learn more about the Forum at [cafishpassageforum.org](http://cafishpassageforum.org)



**CALIFORNIA FISH  
PASSAGE FORUM**



**Sustainable Conservation**



**Cutting the  
Green Tape**

This case study was produced by the California Fish Passage Forum in partnership with Sustainable Conservation.

## NFHP by the Numbers

The NFHP Projects and accomplishments dashboard records the impact of the NFHP program and 20 FHPs since 2006. As of 2026, those are:

- 1,744 projects supported
- \$71,223,384 in direct funding
- \$351,492,841 in additional leveraged funds
- 12,127 habitat enhancements
- 12,018 river miles conserved
- 126,207 acres conserved
- 3,434 science products produced

## The National Fish Habitat Partnership

The California Fish Passage Forum is one of 20 Fish Habitat partnerships recognized under the National Fish Habitat Partnership. The mission of the National Fish Habitat Partnership is to protect, restore, and enhance the nation's fish and aquatic communities through partnerships that foster fish habitat conservation and improve the quality of life for the American people. NFHP supports the work of the diverse network of fish habitat partnerships, and produces independent data products to assess the state of America's freshwater and marine fish populations and habitats through the National Assessment.

Fish Habitat Partnerships operating on the Pacific coast include the California Fish Passage Forum, Pacific Lamprey Conservation Initiative (PLCI), the Pacific Marine and Estuarine Partnership (PMEP), and the Western Native Trout Initiative (WNTI). Learn more at [www.fishhabitat.org](http://www.fishhabitat.org)



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