Project Overview

Lower Alameda Creek Fish Passage Projects

Project Overview:
ACWD’s service area receives approximately 40% of its water supply from the Alameda Creek Watershed. Threatened steelhead trout utilize Alameda Creek to migrate between the San Francisco Bay and spawning and rearing area in the upper part of the watershed. ACWD is implementing the following projects to support a regional steelhead trout restoration effort, as well as maintain the reliability of our water supply infrastructure:

Scope of Work for Fish Passage Improvements:
Completed Projects:
- Fish Corcoran 1/Mission Fish Corcoran 2009
- Bunting Pond Fish Screen – 2009
- Lower Rubber Dam (RD#2) Removal and Fishway Installation – 2009

Current Projects:
- Fish Ladder at Middle Rubber Dam (RD#1) and Alameda County Flood Control drop structure
- Fish Ladder at ACWD’s Upper Rubber Dam (FD#3)
- Kaiser Pond Fish Screen – Replace and install a fish screen on a pipeline that moves water from Alameda Creek to Kaiser Pond
- Shinn Pond Fish Screens – Phase 1 to consolidate two existing diversions from Alameda Creek to Shinn Pond

Scope of Work for Water Supply Reliability Improvements:
- Rubber Dam (RD#1) Replacement – Replace aging rubber dam, instrumentation and controls with new materials and equipment
- Shinn Gravity Rediversion No. 2 – Replace existing pumped pipeline with new gravity pipeline between Shinn and Stevenson Ponds
Construction Impacts

Temporary closure of the fishing pier in 2013 at Quarry Lakes to comply with Americans with Disabilities Act requirements.

Access to the Alameda Creek Trail through Rancho Arroyo Park will be temporarily impacted by construction projects. Alternative access routes will be posted along recreational trails and on the District’s website to alert the public of impending closures and possible trail rerouting.

Lower water levels in several areas, including Quarry Lakes, Shinn Pond and Kaiser Pond. Once the 2013 projects are complete, levels will be restored, dependent upon the timing of rainfall and streamflow conditions.

A temporary gated fence to provide for an enclosed off-leash dog area at Shinn Meadow.
Rubber Dam No. 1 Flood Control Drop Structure Fish Ladder

1. Rock lined Channel
2. Transition Pool
3. Fish Ladder Structure
4. Culvert under Dam Foundation
5. Low Water Level Exit Channel
6. High Water Level Exit Channel
7. Plunge Pool

Artist Rendering of Fish Ladder

View of Rock Lined Channel

View of Low and High Water Exit Channel

Project Location Map
Rubber Dam No. 3 Fish Ladder

- Path of Adult Fish
- Path of Juvenile Fish

- 1 Fish Ladder Structure
- 2 Exit Channel
- 3 Plunge Pool

Project Location Map
Rubber Dam No. 1 Drop Structure Fish Ladder, Rubber Dam No. 1 Bag Replacement and Shinn Pond Fish Screens

Public Access and Construction Traffic Routing Along Alameda Creek
Rubber Dam No. 1 Drop Structure Fish Ladder, Rubber Dam No. 1 Bag Replacement and Shinn Pond Fish Screens

Project Construction Traffic Routes and Entrances
Rubber Dam No. 1 Replacement

Rubber Dam No. 1 Project Location (Near BART & UP RR Crossings)

Deflated

Inflated

Rubber Dam & Foundation Section

Installation and Anchorage of the Rubber Dam Rubberized Fabric (Bladder)

Rubber Dam No. 3 Inflation Testing (1989)

Rubber Dam No. 3 Completed
In Service with Bunting Pond Fish Screen in Background
Kaiser Pond Fish Screen

Project Location

Profile of New Diversion Pipe through Creek Levee
(Shaded area will be excavated while trail access is maintained on alternate half of levee)

Fish Screen on Creek Embankment

Fish Screen Brushes

Conceptual Photo of New Kaiser Pond Fish Screen
Shinn Pond Fish Screen

Project Location

- Existing 54" Diversion Pipes
- Existing 36" Diversion Pipes
- PROJECT SITE

Project Site

- New Fish Screens
- Fish Screens (future expansion)
- New Fish Ladder

Existing Alameda Creek Fish Screens
Located Near Mission Blvd
(New Shinn Pond Fish Screens will look similar)

Existing Alameda Creek Fish Screens
Retracted Out of Creek While Not in Use
(New Shinn Pond Fish Screens will look similar)

Fish Screen Docked on Diversion Pipe Intake While in Use
Construction In-Progress

Excavation for Jacking Pit

Stockpile Management

Concrete Slab Installation at the Bottom of the Pit
Construction In-Progress

- Installation of Slide Rail Shoring
- Steel Casing Pipe Installation
- Trench Excavation for the Fish Screen
- Temporary Access Bridge to Detour the Trail during the Construction
Contractor Requirements

- All personnel receive environmental training prior to work
- Work will only take place within designated construction areas
- Construction crews will limit speeds to 10 mph or less in construction areas
- Barrier fencing and field signs will be used for safety

Questions? Call (510) 668-4410
Construction Impacts

• Construction hours will typically take place between 7:00 a.m. and 7:00 p.m., Monday through Friday
• As equipment is moved in and out of the project construction site, temporary slow traffic zones, temporary street closures, and monitored traffic safety measures will be implemented
• Areas around construction sites may have limited access for periods of time

Construction notices will be posted near construction sites. Construction information can also be found online at www.acwd.org or by visiting us on Twitter or Facebook. Questions can be answered by calling (510) 668-4410.
Environmental Effects

- ACWD is dedicated to protecting and preserving our environment.
- To ensure compliance with federal, state and local regulations, a team of environmental specialists and biologists will monitor construction projects.
Environmental Effects

Environment

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About the Site

• ACWD will be monitoring the site for a diverse array of plants and animals, including:
  • Burrowing Owl: CA Species of Special Concern
  • Western Pond Turtle: CA Species of Special Concern
  • Congdon’s Tar Plant: CA Species of Special Concern
  • Migratory Nesting Birds
Water Levels

Now You See It... Now You Don’t

Water in the Quarry Lakes appears and disappears on a seasonal cycle. In the winter the lake in front of you may be brimming with water. In September it may appear only half full. Here’s how this “vanishing act” works:

So if water levels seem unusually low right now, remember that the water that “disappears” from the lakes reappears as the water supply for the Tri-City area.