

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:

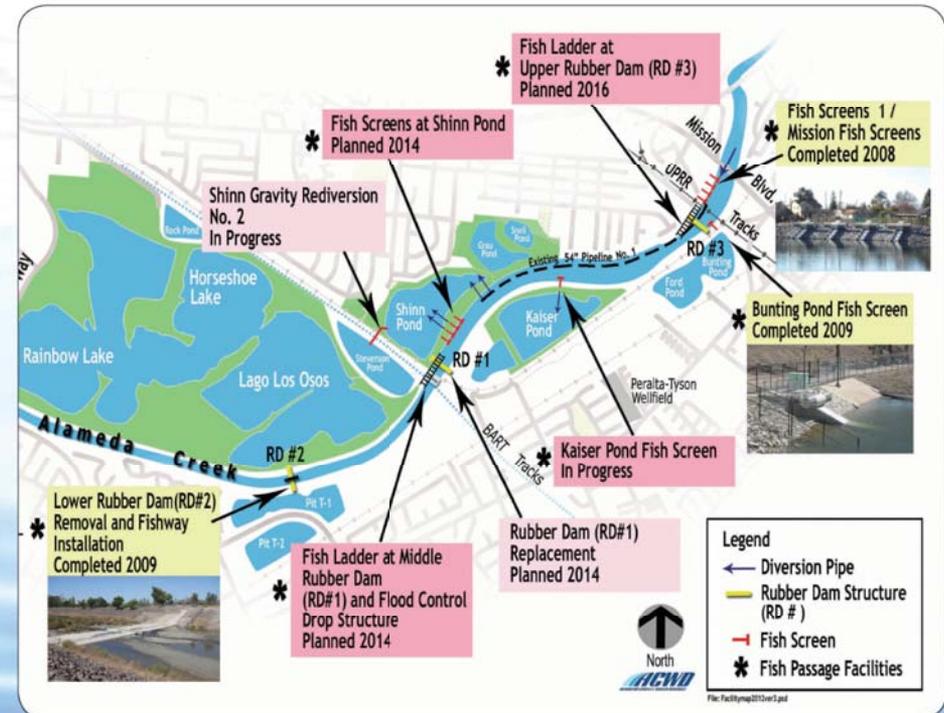
- Fish Screen 1/Mission Fish Screens – 2008
- Bunting Pond Fish Screen – 2009
- Lower Rubber Dam (RD#2) Removal and Fishway Installation – 2009

Current Projects:

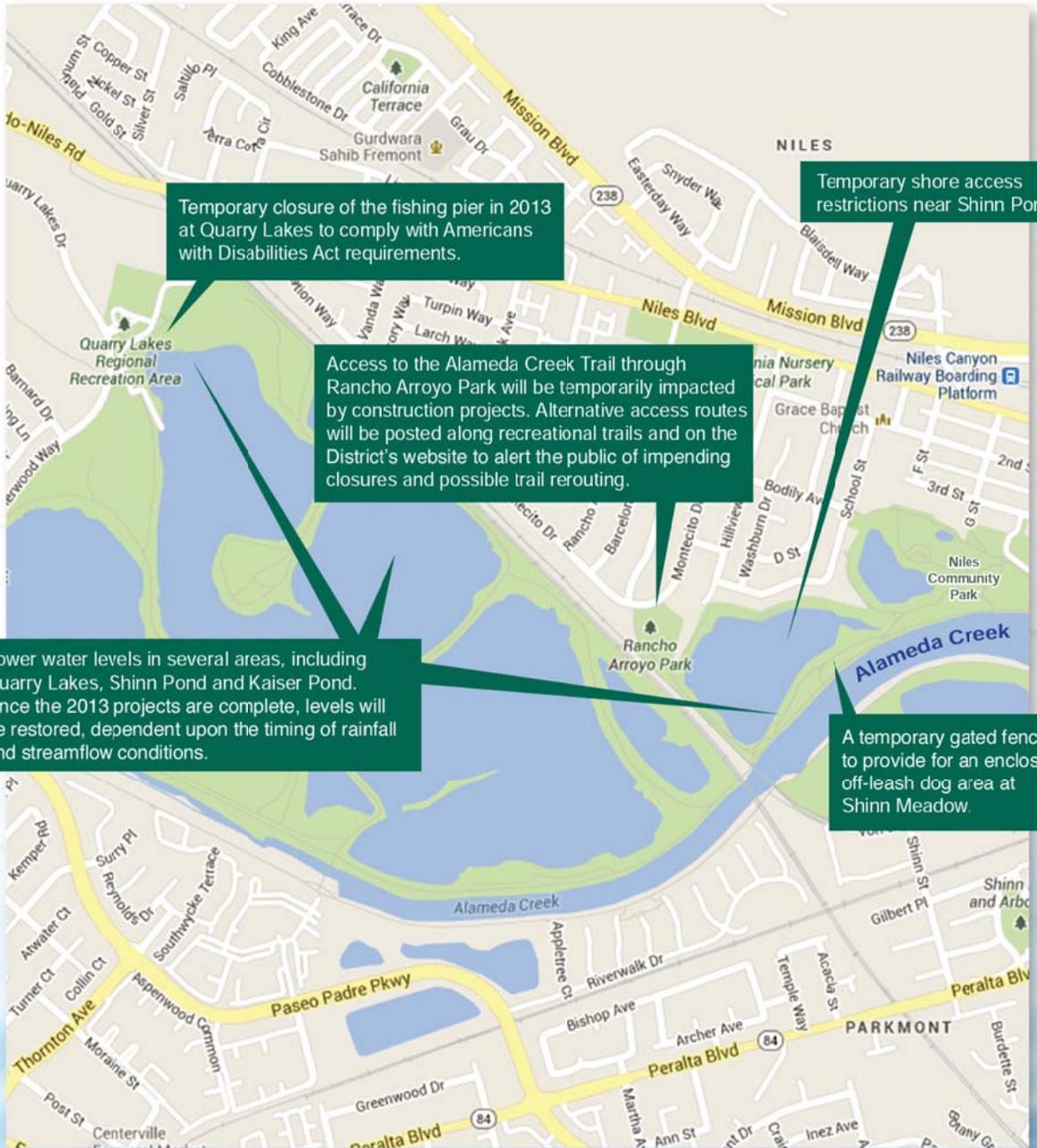
- Fish Ladder at Middle Rubber Dam (RD#1) and Alameda County Flood Control drop structure
- Fish Ladder at ACWD's Upper Rubber Dam (RD#3)
- Kaiser Pond Fish Screen – Replace and install a fish screen on a pipeline that moves water from Alameda Creek to Kaiser Pond
- Shinn Pond Fish Screens – Phase 1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

Scope of Work for Water Supply Reliability Improvements:

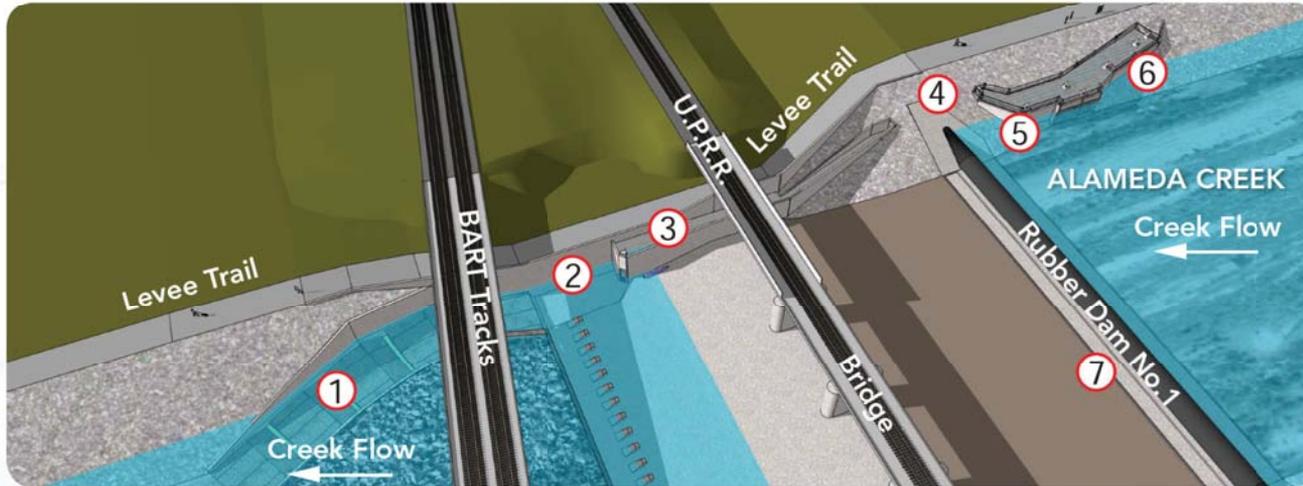
- Rubber Dam (RD#1) Replacement – Replace aging rubber dam, instrumentation and controls with new materials and equipment
- Shinn Gravity Rediversion No. 2 – Replace existing pumped pipeline with new gravity pipeline between Shinn and Stevenson Ponds



Construction Impacts

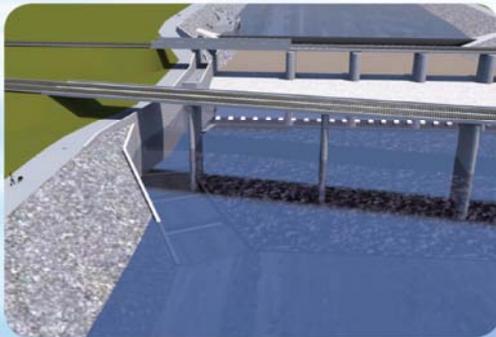


Rubber Dam No. 1 Flood Control Drop Structure Fish Ladder



- 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. 1 Fish Ladder

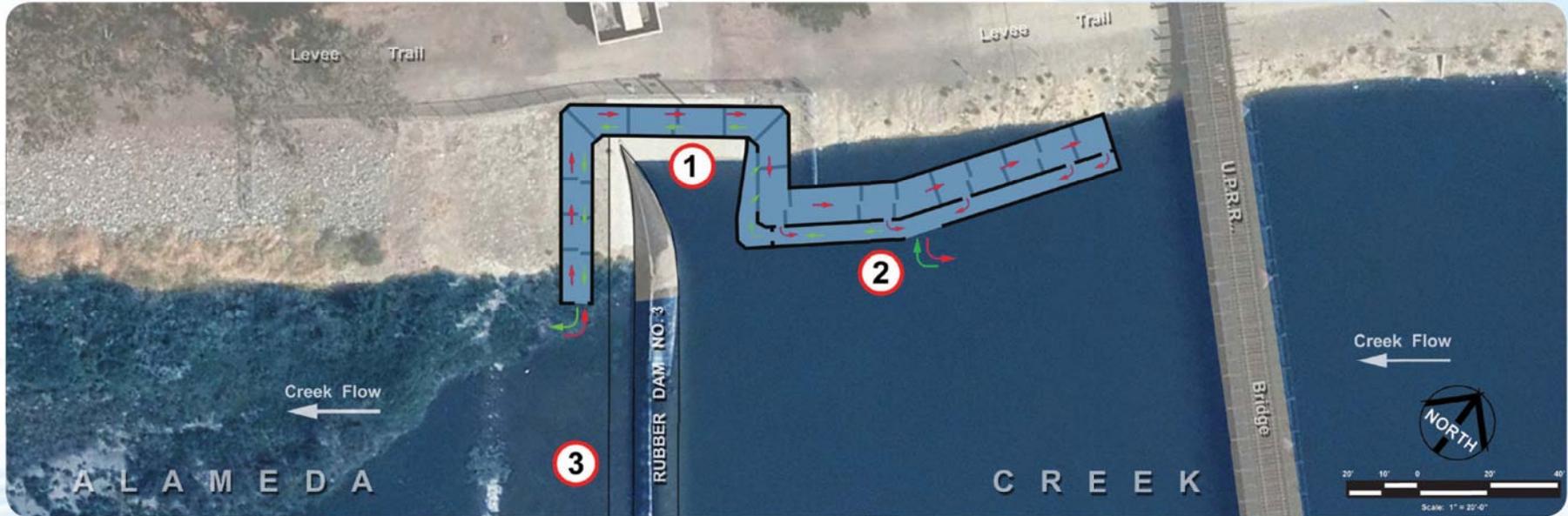


Flood Control Drop Structure

Rubber Dam 1 Structure

- Path of Adult Fish
- Path of Juvenile Fish
- 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

Rubber Dam No. 3 Fish Ladder



Rubber Dam 1 Structure

- 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



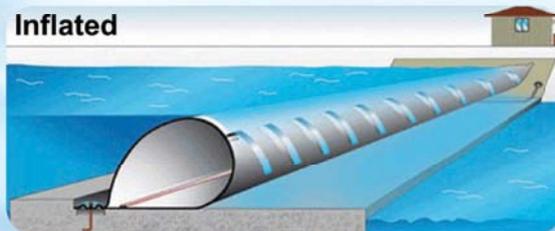
Rubber Dam No. 1 Replacement



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



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



Rubber Dam & Foundation Section

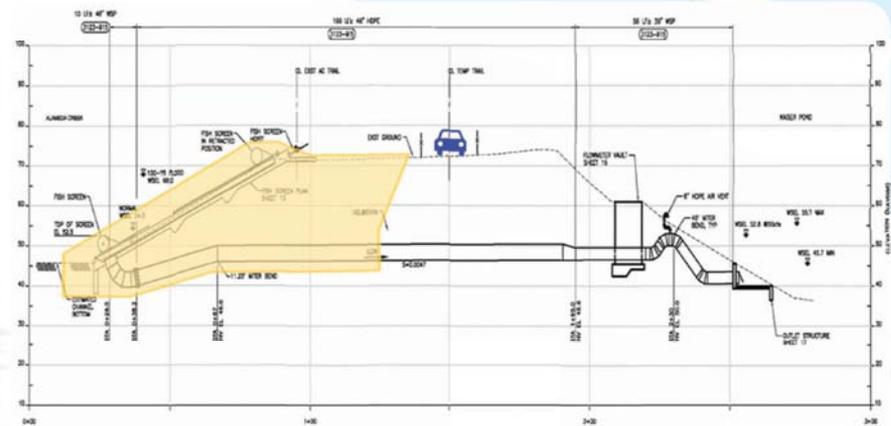


Rubber Dam No. 3 Inflation Testing (1989)



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

Kaiser Pond Fish Screen



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

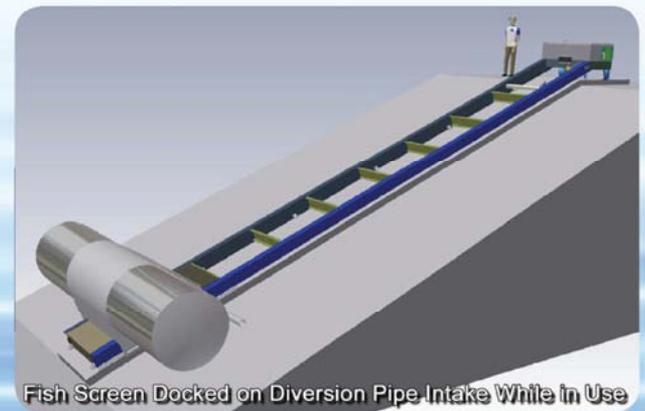


Fish Screen Brushes



Conceptual Photo of New Kaiser Pond Fish Screen

Shinn Pond Fish Screen



Construction In-Progress



Installation of Interlocking Steel Sheet Piles in the Jacking Pit



Dump Truck and Excavator



Hydraulic Piling Rig (ABI)

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

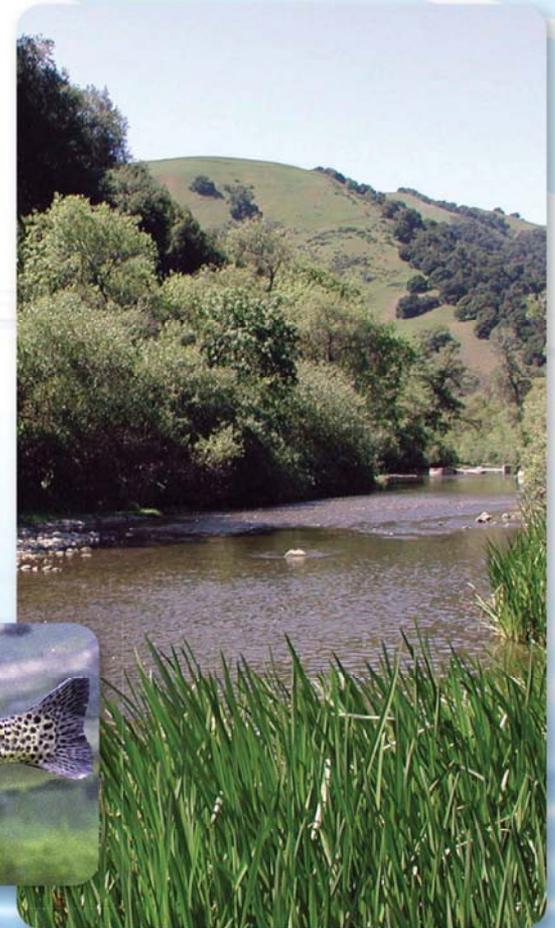


Keeping Dust Down With a Water Truck

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

- 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 continuously monitor construction projects.

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



Burrowing Owl
(*Athene cunicularia*)



Rare Plants – e.g.
Congdon's Tarplant



Migratory Nesting Birds



Aquatic Species

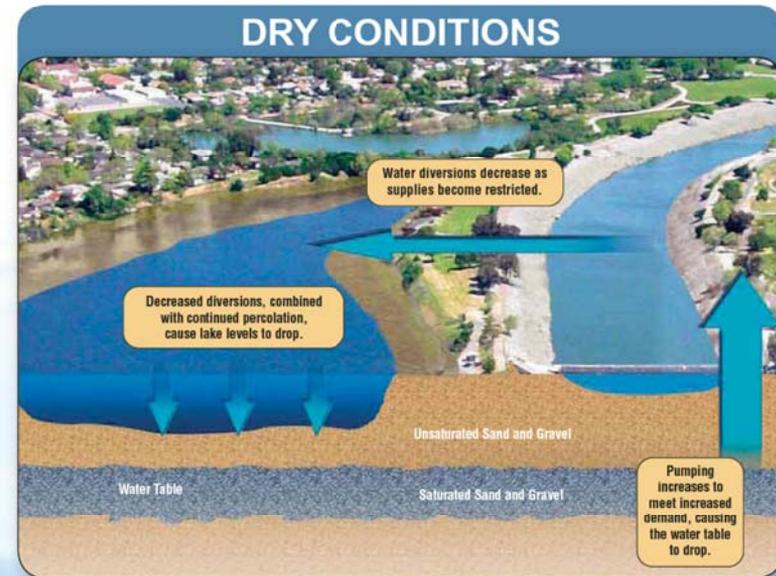
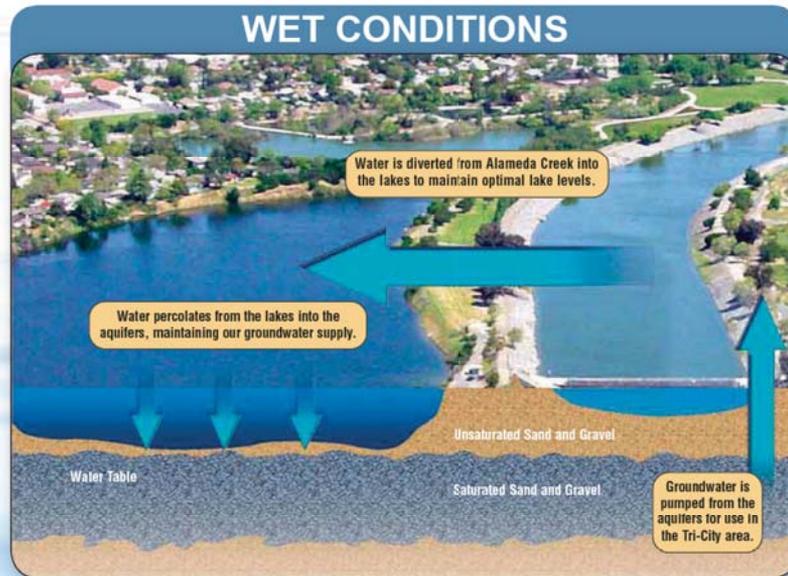


Western Pond Turtle
(*Emys marmorata*)

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.