

Almaden Lake Improvement Project

A voter-approved stream stewardship creek and lake separation project



Almaden Lake History and Existing Conditions

Almaden Lake is a 32-acre man-made water body and former gravel quarry in the Guadalupe Watershed. After operations ceased, heavy storms washed away the levee separating Alamitos Creek from the quarry, creating Almaden Lake and with it, several environmental challenges:

Fish habitat and migration

The Guadalupe Watershed, which includes Alamitos Creek, supports federally threatened Central California Coast steelhead and other native fish. Steelhead use freshwater creeks and rivers for spawning and the ocean for adult growth. When adult steelhead return to the creeks and rivers to spawn, they must pass through Almaden Lake to reach their upstream spawning habitats in Alamitos and Calero creeks. Juvenile steelhead then pass through the lake when migrating down the Guadalupe River to the San Francisco Bay. The co-mingling of Almaden Lake with Alamitos Creek disrupts migration. Fish risk getting lost in the lake rather than migrating upstream or downstream and must avoid being preyed by non-native fish such as Bass. Varying water temperatures can also impact cold-water fish since higher temperatures can decrease oxygen supply, disrupt metabolism and increase toxin susceptibility.

Water quality

The lake suffers from elevated bacteria levels and seasonal algae blooms. These are caused by a series of factors including waste from birds such as seagulls and geese, poor water circulation, varying temperatures, and storm water inputs.

Because Almaden Lake is downstream from the historic New Almaden Quicksilver Mine, mercury-laden sediment has accumulated in the lake. During warm summers, lake conditions promote the conversion of mercury to methylmercury, the most toxic form of mercury. While not a drinking water issue, mercury can accumulate in fish in amounts harmful to humans and wildlife that eat them.

A View of project from Winfield Boulevard.

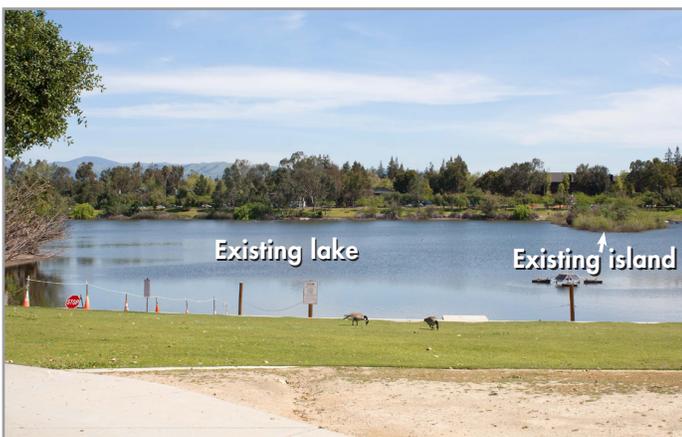


Before



After

B View of project from Almaden Expressway.

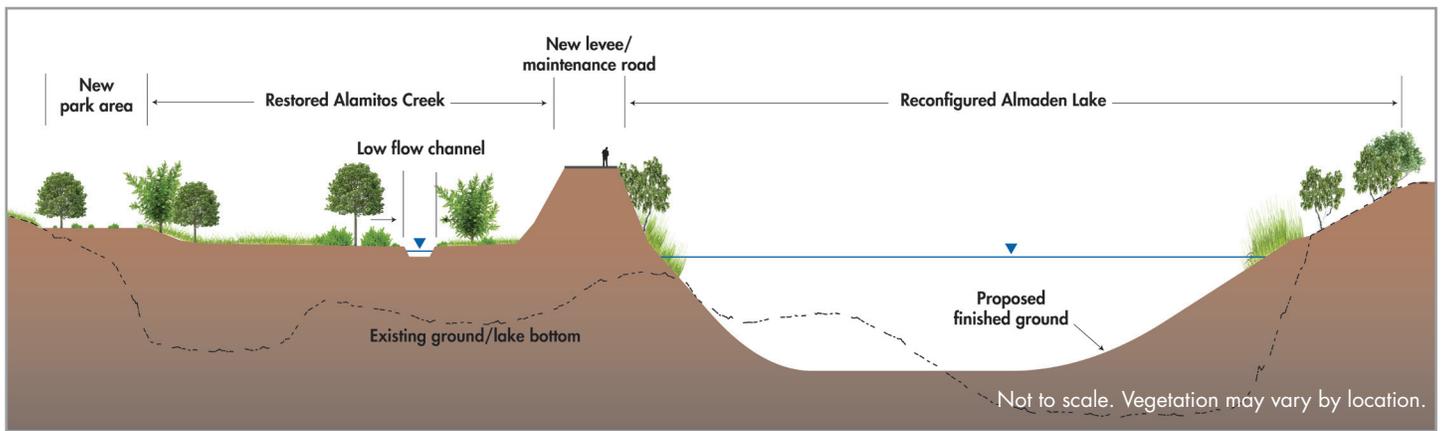


Before



After

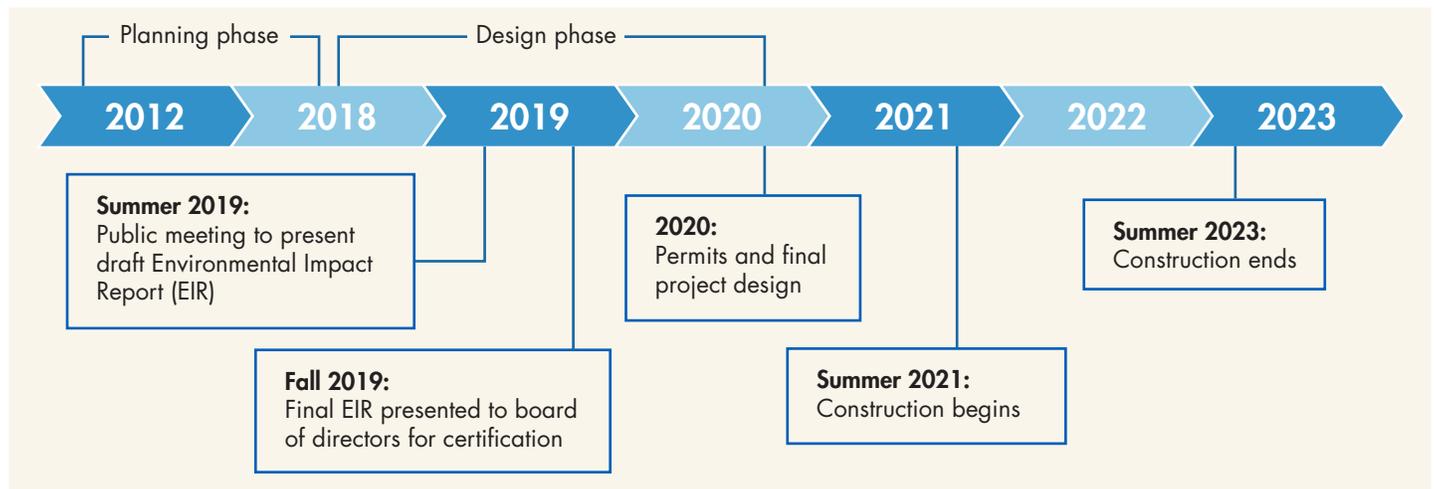
C Profile view of new park area, facing downstream of Almaden Lake.



Almaden Lake Improvement Project

Valley Water is committed to protecting the environment through efforts such as the Almaden Lake Improvement Project. The work will separate Alamitos Creek from Almaden Lake, provide a new flow-through water source for the lake, cap the mercury-laden sediments at the lake's bottom and restore the connection between Alamitos Creek and Guadalupe River from Coleman Road to the southern end of Almaden Lake. The project will:

- Improve water quality downstream in Guadalupe River
- Reduce methylmercury production in the lake
- Improve access to steelhead spawning and rearing habitat within the Upper Guadalupe Watershed
- Boost natural creek functions such as sediment transport and habitat linkages for native species
- Minimize impacts to recreational features of Almaden Lake Park



Project objectives	Environmental benefits
<ol style="list-style-type: none"> 1. Separate Alamitos Creek from Almaden Lake. 2. Remove warming effect of the lake's water released downstream into the Guadalupe River. 3. Reduce potential for fish* to get lost in the lake rather than migrating upstream or downstream. 4. Separate non-native fish habitat from Alamitos Creek. 5. Reduce production of methylmercury and mercury concentration in fish within Almaden Lake to meet applicable water quality objectives. 6. Minimize impacts to existing recreational features. 	<ul style="list-style-type: none"> • Protects anadromous fish (steelhead) • Reduces methylmercury production • Improves water quality • Restores and enhances habitat • Increases trails and open space

*Fish born in fresh water that spend their adult life in the sea and return to fresh water to spawn.

Project cost

The voter approved Safe, Clean Water and Natural Flood Protection Project funds the Almaden Lake Improvement Project. The work is one of eight projects under the measure's Priority D, which focuses on restoring and protecting vital wildlife habitat and providing opportunities for increased access to trails and open space. The project is one of two planned creek and lake separation projects under Priority D4. The project budget is approximately \$4.2 million for planning and design and approximately \$25 million for construction.

About Valley Water

Valley Water, with a history dating back to 1929, manages an integrated water resources system that includes the supply of clean, safe water, flood protection and stewardship of streams on behalf of Santa Clara County's 2 million residents. Valley Water effectively manages 10 dams and surface water reservoirs, three water treatment plants, an advanced recycled water purification center, and a state-of-the-art water quality laboratory. We operate nearly 400 acres of groundwater recharge ponds. We provide wholesale water and groundwater management services to local municipalities and private water retailers who deliver drinking water to homes and businesses. Valley Water is the flood control agency for Santa Clara County, annually preparing creeks for winter rains through levee maintenance, sediment removal, bank repair and vegetation management. We have invested more than \$1 billion in flood protection efforts to protect nearly 100,000 parcels with many more projects planned.

Get project updates

1. Request project information using Access Valley Water valleywater.org/acwapp
2. Sign up to receive project updates via email using the QR code or the link on the project website.
<https://delivr.com/27kcs>
3. For more information, contact Project Manager **Roxanne Grillo** at **408-630-3078** or **rgrillo@valleywater.org**.



Si habla español y tiene preguntas sobre el contenido de este mensaje por favor de comunicarse con José Villarreal al JVillarreal@valleywater.org o (408) 630-2879.

Nếu bạn nói tiếng Việt và có thắc mắc về nội dung của thông báo này, xin vui lòng liên hệ với Ngọc Nguyen tại NNguyen@valleywater.org hoặc (408) 630-2632.

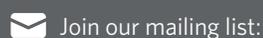
如果你說中文並對上述訊息有疑問，請聯繫 Sarah Young, 電郵 SYoung@valleywater.org, 或者電話: (408) 630-2468.

CONTACT US

For more information, contact **Tony Mercado** at **(408) 630-2342** or by email at **Tmercado@valleywater.org**. Or use our **Access Valley Water** customer request and information system at **<https://delivr.com/2yukx>** to find out the latest information on Valley Water projects or to submit questions, complaints or compliments directly to a Valley Water staff person.



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