El Dorado County

TAHOE BASIN INITIATIVES

EL DORADO WATER AGENCY

The El Dorado Water Agency (EDWA) was created in 1959 through the El Dorado County Water Agency Act to ensure that El Dorado County has adequate water to serve its many needs now and into the future.

The Agency covers the entire county, on both sides of the Sierra Nevada with headwaters and national forests. El Dorado County's diverse landscapes include a large portion of the Tahoe Basin located on the east side of the Sierra Nevada Crest, which has unique governance, ecological sensitivities, and the longest snow survey records in the western U.S.

SOUTH TAHOE PUBLIC UTILITY DISTRICT

The South Tahoe Public Utility District (STPUD) is a public agency, established in 1950 pursuant to Section 9 of the Public Utility District Act. The District supplies drinking water and provides sewage collection, treatment, and export to protect Tahoe's delicate ecosystem. Managing this complex operation requires an uncommon environmental sensitivity.

TAHOE CITY PUBLIC UTILITY DISTRICT

The Tahoe City Public Utility District (TCPUD) was founded in 1938 and is the oldest local government office in the Tahoe Basin. The District was established under the State of California's Public Utility District Act. The boundaries of the District lie within both Placer and El Dorado counties, extending from Emerald Bay to Dollar Hill, and along the Truckee River to the Nevada County line. The TCPUD service area encompasses more than 31 square miles.

TAHOE BASIN PROJECTS

El Dorado Water Agency (EDWA), South Tahoe Public Utility District (STPUD), and Tahoe City Public Utility District (TCPUD) are working on several key projects to secure and protect water reliability in the Tahoe Basin:

Tahoe Water for Fire Suppression Partnership (STPUD and TCPUD)

PARTNERS: The STPUD and TCPUD partnership includes two states (Cal-Nevada), Tahoe Regional Planning Agency, CalFire, and U.S. Forest Service

COST: Over $100M

SCHEDULE: Ongoing

The Partnership was created in response to devastating past and future threats of severe wildfires in the Lake Tahoe Basin. The Partnership seeks a comprehensive regional approach to improve water distribution systems and regional interconnectivity to better respond to wildfires. All Partnership projects align with the objectives identified by the Lake Tahoe Restoration Act.

- Reduces potential for sedimentation of streams and Lake Tahoe by expanding fire response infrastructure for quicker fire suppression.
- Improves fire response capacity, coverage, and dependability by upsizing water pipelines and adding new storage tanks.
- Reduces the risk of flooding caused by post-fire sedimentation.
- Decreases risk and extent of catastrophic wildfires, thereby reducing forest habitat destruction and fire impacts on fish and wildlife, as well as local, state, and federal recreation areas and other resources.
- Protects public and private properties, structures, and lives; strengthens collaboration on emergency response planning, measures, and resources.

Drinking Water System (STPUD)

PARTNERS: South Tahoe Public Utility District and EDWA

COST:
$309,000
(Rocky PRV Replacement)

$1,557,000
(Rocky Point #2 Waterlines Replacement)

SCHEDULE:
No schedule available

STPUD's drinking water system consists of 251 miles of distribution pipe, serving 14,000 residential connections and 660 commercial and government sites, all supplied by 11 active groundwater wells. The STPUD is addressing several challenges, including 10 percent of the system that cannot provide water for firefighting, and aging infrastructure in need of significant improvements and updates.

- Replaces 4,000 feet of 2-inch and 4-inch potable water pipelines and adds new fire hydrants to address pressure/hydraulic deficiencies and improves current hydrant spacing, respectively.
- Reduces risks of waterline failures by replacing aging, undersized waterlines with new, higher pressure and larger pipelines that can meet fire flow capacity requirements.
- Protects public and private properties, structures, and lives; enables increased firefighting capacity for the broader community.

West Lake Tahoe Regional Water Treatment Plant (TCPUD)

PARTNERS: Placer County, El Dorado County Transportation Department

COST: $13,944,006

SCHEDULE: Start Construction – July 2020; Complete Construction – October 2023

This plant will replace a 2004 seasonal, interim surface water treatment plant on the west shore of Lake Tahoe. Currently, three water systems are supplied by single groundwater wells, with backup water supplied by the seasonal plant. A new, permanent surface water treatment plant is needed to reliably meet the regional potable water demands and fire suppression capacity.

- Reduces public health risks by replacing outdated, aging well systems with new treatment plant.
- Establishes reliable potable water supplies and increases fire response capacity by installing new treatment facilities and capacity, and upgrading pipeline distribution systems for redundancy.
- Improves response to and decreases potential for catastrophic wildfires, thereby reducing forest habitat destruction and fire impacts on fish and wildlife and Lake Tahoe.
- Creates backup sources of water delivery for all community systems and public recreation areas, as well as improves protection for public and private infrastructure by increasing fire response capacity.

Tahoe Cedars Water System Interconnection and Distribution Improvements (TCPUD)

PARTNERS: Placer County, El Dorado County Transportation Department, CalFire

COST:
Total Cost: $25,000,000
Phase 1: $2,750,000

SCHEDULE:
Start Construction, Phase 1 – July 2020;
Complete Construction, Phase 1 – October 2022;
Complete Construction – October 2023

Privately owned until 2018, this system located on the west shore of Lake Tahoe has significant infrastructure needs. This project will address metering, fire flow, hydrant spacing, networking, and supply distribution. These improvements will include an interconnection with the West Lake Tahoe Regional Water Treatment Plant.

- Reduces water quality health risks by replacing failing and aging pipelines with new pipelines.
- Increases water delivery reliability, redundancy, and fire response capacity by interconnecting with an existing treatment plant system and upgrading pipelines to improve delivery redundancy, pressures, and flow capacities.
- Reduces forest habitat destruction and reduces sedimentation impacts on fish and Lake Tahoe.
- Creates backup sources of water delivery for all community systems and public recreation areas, as well as improves protection for public and private infrastructure by increasing fire response capacity.

West Shore Regional Water Storage Tanks (TCPUD)

PARTNERS: Privately/ publicly owned water providers, U.S. Forest Service

COST: $7,000,000

SCHEDULE: Start Design – May 2021;
Start Construction – July 2022;
Complete Construction – October 2023

The west shore is served by multiple, disconnected, privately and publicly owned water systems, many of which lack adequate infrastructure. The addition of two new storage tanks that could be shared by both private and public systems will dramatically improve water supply reliability and fire suppression capacity to better protect private property and federal lands, and establish a drought resilient water supply to water systems and customers in the region.

- Creates storage where none currently exists, and interconnects existing water systems to establish back-up supplies, both of which increase supply reliability and fire suppression capacity.
- Creates backup sources of water delivery for all community systems and public recreation areas, as well as improves protection for public and private infrastructure by increasing fire response capacity.

PCE Groundwater Contamination (STPUD)

PARTNERS: Lukins Brothers Water Company, Tahoe Keys Property Owners Assn, City of South Lake Tahoe, EDWA, State Water Resources Control Board

COST: No estimates available

SCHEDULE: No schedule available

In the decades since PCE was discovered in the region's groundwater, the plume has contaminated seven wells and grown to approximately 400 acres, posing a serious human health threat. Currently, 72 percent of the water supply in South Lake Tahoe is at risk from PCE contamination, in addition to the seven wells that are already impacted.

- Cleans up the only source (groundwater) of potable water supply in the South Lake Tahoe region for the approximately 24,000 full-time residents and the hundreds of thousands of annual visitors.
- Reduces the long-term inflow of PCE-contaminated groundwater into Lake Tahoe by removing PCE from up-gradient portions of the contaminated plume.
- Supports the continued collaborative efforts by public, private, and homeowner association water companies to collectively solve the groundwater contamination.

Water Quality – Improves quality of surface and groundwater supplies. Contributes to total maximum daily load (TMDL) requirements by treating runoff and overflows.

Water Supply – Creates potable and reliable drinking and agriculture water supply.

Flood Risk Reduction – Mitigates and reduces flood risk through capture, diversion, or reduction of the rate and volume of runoff.

Environmental – Improves snowpack retention and natural watershed enhancements, such as stream flows, wetlands, riparian and habit. Reduces energy use and greenhouse gas emissions. Includes opportunities for low-impact development.

Community – Creates jobs, enhances or creates community amenities, and/or provides improved public safety. Includes improvements in disadvantaged communities (DACs).

Water Reuse – Improves domestic water supply reliability by capturing stormwater or wastewater for reuse.