Bijou Area Erosion Control Project
Lahontan Water Board

Lahontan Water Board Efforts Bring Water Quality Benefits

The Lahontan Regional Water Quality Control Board (Lahontan Water Board) has long recognized that the discharge from the Bijou Creek outfall as one of the most heavily polluted discharges to Lake Tahoe and that a parcel-by-parcel solution would be difficult to implement and be very costly. Consequently, Lahontan Water Board staff encouraged a regional solution with multiple water quality benefits that is supported by private, local agency, state, and federal partners. Benefits of the Bijou Area Erosion Control Project that resulted from those efforts include:

- Eliminates sediment discharges in storm water from the Bijou Commercial Core area, in compliance with the City of South Lake Tahoe's (City) Municipal Separate Storm Sewer System permit.
- Results in significant progress towards meeting the Lake Tahoe Sediment and Nutrient Total Maximum Daily Load (TMDL).
- Recharges groundwater in the Bijou Creek watershed.
- Supports wetlands with water not infiltrated in treatment basins.
- Reduces or eliminates localized flooding.
- Removed soil and water contamination from long-abandoned underground storage tanks in the Bijou Commercial Core area.

Silt-laden storm water draining from parking lot to Lake Tahoe

Pre-project polluted discharge at Bijou Creek and storm water outfall

The innovative project design incorporates an underground system of stormwater conveyances and treatment vaults to trap sediment and other pollutants carried in runoff, and a pump back system that conveys the treated runoff nearly one mile further up into the Bijou Creek watershed to a system of vegetated water quality treatment/infiltration basins. In the basins, the runoff is further polished by vegetation and the filtration that occurs as the water infiltrates into the ground. With the runoff treatment facilities installed, Bijou Creek will be conveyed through the Bijou Commercial Core in a newly constructed concrete culvert with virtually no input of runoff from urban areas. This is the first "pump back" system of this magnitude constructed in the Tahoe Basin. The Project is expected to reduce fine sediment discharges to Lake Tahoe by 20,000 pounds per year and meet one-fourth of the City's 5 year permit requirement to reduce sediment loading.

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Installation of Bijou Creek Replacement Culverts

Project construction is scheduled to be completed in December 2014. The Project is located in the heart of South Lake Tahoe, approximately 1.5 miles west of the California/Nevada state line, in a high density commercial/residential area. This area has long been considered a pollutant hot spot for Lake Tahoe. The water quality problems were especially difficult to address given the shallow depth to groundwater, the proximity to Lake Tahoe and the lack of land for the construction of water quality improvements.

Lahontan Water Board staff worked to ensure that funding through State agencies, including the State Water Resources Control Board (Proposition 84 grant) and Caltrans, were appropriately directed to this high-priority project. Private property owners now have the opportunity to buy-in to a regionally effective project rather than having to design/install/maintain storm water best management practices (BMPs) on individual parcels.

Project construction is funded through agreements, competitive grants, and partnerships with the State Water Resources Control Board, Caltrans, US Forest Service, California Tahoe Conservancy, City of South Lake Tahoe and the Tahoe Regional Planning Agency. The City has established a public/private partnership program through which local property owners can gain required certification that their property is compliant with requirements for BMPs by agreeing to pay for a portion of the ongoing maintenance costs for the newly installed facilities. Costs to property owners will be limited to their share of the ongoing maintenance costs based on several factors including lot size and percent of impervious land. This program gives property owners the opportunity to participate in the regional project as an alternative to having to build and maintain their own systems.

Post-project Bijou Creek outfall