

Big Tujunga Reservoir Sediment Removal Project Frequently Asked Questions

What benefits does the Big Tujunga Dam and Reservoir facility provide to the community?

Big Tujunga Dam is a concrete arch dam with a 6,240 acre-feet capacity reservoir built in 1931 to provide flood protection and water conservation for downstream communities. It is located in Los Angeles County at the base of the San Gabriel Mountains, 10 miles northeast of Sunland. The facility captures sediment washed into the reservoir by storm flows, attenuates the flows, and subsequently controls water releases to the downstream Big Tujunga Wash. The dam protects an estimated 4,600 people living downstream in its inundation area of 3.5 square miles.

Stormwater captured at the dam can be released through the outlet works to the Big Tujunga Wash. It then flows through the Hansen Dam Recreation Area and enters the Tujunga Wash where it can be diverted into spreading grounds that recharge the water into the San Fernando Basin groundwater aquifer. The groundwater is later extracted by the City of Los Angeles Department of Water and Power, treated, and delivered for potable use to the City's 3.8 million residents. Groundwater provides one-third of Los Angeles' total water supply and helps to reduce demand for expensive and unreliable water imported from Northern California or the Colorado River.

What benefits will the project provide?

Following the 2009 Station Fire, which burned over 87 percent of the Big Tujunga Dam's watershed, storm events washed a tremendous volume of sediment into the reservoir bringing the total volume in the reservoir to approximately 2 million cubic yards (this is enough sediment to fill the Rose Bowl Stadium 5 times). Additional storms occurring over the scorched hillsides could bring another 2.4 million cubic yards of sediment into the reservoir before the project is completed. This volume of sediment reduces the dam's capacity to capture stormwater runoff for flood control and water conservation, and threatens to plug the dam's outlet works. Removing the sediment will restore important flood protection and water conservation benefits to the downstream communities.

Why is the CEQA document an Initial Study and Mitigated Negative Declaration document as opposed to an Environmental Impact Report (EIR)?

The California Environmental Quality Act (CEQA) requires an Initial Study (IS) be completed to assess a project's potential impacts based on various environmental factors. An EIR requires that all of a project's impacts are disclosed, but not necessarily mitigated to below significant thresholds (since it may not be possible). A Mitigated Negative Declaration (MND) requires that all of a project's impacts are below significant thresholds or mitigated to below significant thresholds. Because the project successfully minimizes and mitigates environmental impacts, the IS, determined that an MND is the appropriate environmental document for the project.

How will the sediment be removed from the reservoir? Where will the sediment be moved to?

The reservoir will be emptied of water during the non-storm season (generally April to October). The sediment will then be excavated with equipment including bulldozers and backhoes. Most of the sediment will then be transported less than two miles, and placed and compacted at the existing Maple Sediment Placement Site (SPS). Two sediment transportation methods with reduced air quality impacts will be available for the contractor: conveyor belt or low-emissions equipment/trucking (Please see the IS/MND document for additional information).

While a large amount of the sediment in the reservoir will consist of silt and fire-scorched remnants, the reservoir contains some sediment that will have commercial value such as rocks and cobbles. The Los Angeles County Flood Control District (FCD) will stockpile high-quality sediment near the dam for re-use as aggregate or other construction material. Transporting the high-quality sediment for re-use will occur during the storm season (October to April) and the number of trucks will be limited to avoid significant air, noise, and traffic impacts.

Why not sluice or flush the sediment through the dam?

Sluicing or flushing involves using the natural stormwater runoff to transport accumulated sediment from the reservoir through the dam and the downstream watercourse. Currently the slide gate that could be used to sluice or flush sediment is buried under 25 feet of sediment. Sluicing and flushing methods require a balance of the right volume and flow velocity of water based on the amount, type, and gradation of sediment. Given the tremendous volume of sediment currently in the reservoir and the uncertainty of the volume and intensity of future storm runoff events, sluicing or flushing would likely cause harmful effects to the downstream area's species, habitat, water conservation, and recreation.

After this sediment removal project is completed, consideration will be given to operating the slide gate during storm events to prevent the accumulation of sediment in the reservoir. This would reduce the need for future reservoir sediment removal projects and create a more natural sediment balance in the watercourse below the dam. We intend to coordinate with the resource and regulatory agencies including the United States Forest Service (USFS), the United States Fish and Wildlife Service, and the California Department of Fish and Wildlife to evaluate if such a flow regime could be implemented without adverse impacts. These efforts are not a part of this project or its environmental document.

Why use the Maple SPS?

The Maple SPS was designated more than 30 years ago to accept the watershed's sediment that was projected to accumulate in the Big Tujunga Reservoir. The SPS has been used for this purpose and was expected to continue to serve this purpose for a period of 50-years (to 2031). The SPS is situated less than two miles, via access roads, from the dam. This close proximity of the SPS is ideal since other sediment removal

methods, such as trucking all of the sediment out of Big Tujunga Canyon, would contribute to more traffic, noise, and air quality impacts, especially to the downstream communities.

Will May SPS or La Tuna SPS be used for this project?

All sediment from the project will be placed in Maple SPS or will be re-used as construction material. No sediment from the project will be transported to May SPS, which is located in the Sylmar area of the City of Los Angeles. No sediment from the project will be transported to La Tuna SPS, which is located in the Sunland area of the City of Los Angeles.

Will special status vegetation be impacted in Maple SPS?

Yes, 0.23 acres of riparian habitat will be impacted within the SPS. When the SPS was originally designated, an Environmental Assessment (EA) was conducted for the SPS in coordination with the USFS which identified the vegetation and habitat that would be impacted by filling the SPS to its ultimate capacity. FCD staff worked with the USFS to find a location where an equivalent amount of riparian habitat could be protected. The site was approximately 10 miles upstream of the SPS and the restoration was approved by the USFS, the United States Army Corps of Engineers, and the Water Quality Control Board. Although FCD already mitigated for the entire SPS's riparian habitat impacts, the resource and regulatory agencies may identify additional requirements during the regulatory permitting process to ensure that all habitat impacts are appropriately mitigated.

What about the Federally Endangered Arroyo Toad?

During the project's biological surveys one Arroyo Toad was found upstream of the reservoir area. The project's boundary avoids the critical habitat for the Arroyo Toad. Biological surveys, fencing, and other methods will be employed prior to and during project construction to ensure that any Arroyo Toads present, will be protected (Please see the IS/MND document for additional information).

What about the Federally Threatened Santa Ana Sucker (SAS)?

The SAS occupies critical habitat downstream of the dam. Separate from this project, FCD has been monitoring and surveying the SAS in the area for a number of years. For the project, FCD will ensure that the rate of water released when emptying the reservoir will not harm the SAS and that, sediment does not get washed downstream during the sediment removal activities. FCD conducted a careful analysis by comparing historical outflows from the dam to the SAS biological survey results. A very conservative range of flows in which the SAS have successfully thrived was then identified. The reservoir will be dewatered within this very conservative range of flows that were identified through the analysis. Silt fences and other best management practices will also be employed to keep water quality at a satisfactory level. During project construction, the stream flows will be diverted around the work area, thus the SAS will experience natural watershed runoff conditions without sediment impacts. (Please see the IS/MND document for additional information).