

SILVER LAKE RESERVOIR COMPLEX WATER SYSTEM INFRASTRUCTURE PROJECTS

In order to comply with the United States Environmental Protection Agency's Long-Term 2 Enhanced Surface Water Treatment Rule, the Los Angeles Department of Water and Power (LADWP) removed Silver Lake and Ivanhoe Reservoirs from the water distribution system. Although no longer a potable drinking water storage facility, LADWP will maintain the reservoirs' water elevations within historical levels, and allow the reservoirs to revert to a more natural state.

In 2017, LADWP filled Silver Lake and Ivanhoe Reservoirs ahead of schedule using surplus water from the Los Angeles Aqueduct available as a result of an above-average year of snow in the Eastern Sierra—registering at more than double the snowpack of a typical year. Moving forward, the projects described below will provide the infrastructure necessary to ensure that the reservoirs' historic water elevation levels and aesthetics are maintained.

Groundwater Infrastructure – Pollock Well #3 In construction through Spring 2018

This project is being constructed at a nearby LADWP facility, just northeast of the Silver Lake Complex. When complete, LADWP will be able to pump groundwater from Pollock Well #3 to refill both Ivanhoe and Silver Lake Reservoirs. The pipeline connecting the well to the reservoirs was completed in May 2017 and LADWP crews are currently working on providing power to the well pump within the LADWP facility. When complete, this will help eliminate the need to use potable water for future refill. LADWP anticipates being able to utilize Pollock Well #3 in March of 2018.

Gate Well Modifications February 2018 through March 2018

The gate well is designed to allow water to flow between the two reservoirs. When Silver Lake Reservoir was taken out of service, the gate well between Silver Lake and Ivanhoe reservoirs was plugged to protect the drinking water stored in Ivanhoe Reservoir. Now that both reservoirs are out of service, LADWP will remove a portion of the concrete gate well plug to be able to refill Ivanhoe and Silver Lake independently.

Aeration and Recirculation Systems Winter 2019 – Fall 2020

An aeration system and a recirculation system will be installed to manage algae formation along with potential related odors while improving the aesthetics of both reservoirs. This work has been divided into two phases:

Phase 1: Aeration System Winter 2019 - Summer 2019

The aeration system will use compressors installed on the northeast side of Silver Lake Reservoir to supply air to a series of mixing equipment inside each reservoir. The equipment will increase the oxygen level at the bottom of the reservoir and locally mix the water around it. This aeration system will slow down algae growth and reduce potential related odors from anaerobic conditions. The aeration system is currently under design and the construction completion is anticipated by the Summer 2019.

Phase 2: Recirculation System Fall 2019 - Fall 2020

The recirculation system includes pumps and pipelines designed to transfer water from the southern end of Silver Lake Reservoir to the northern end of Ivanhoe Reservoir. This full water transfer between both basins allows for more thorough mixing and de-stratification, which will also reduce algae development while utilizing the existing spillway between the reservoirs.

Silver Lake Reservoir Stormwater Capture Project Spring 2020 - Spring 2021

As part of this project, storm drains will be constructed to divert stormwater into Silver Lake and Ivanhoe Reservoirs from the surrounding residential neighborhood. The Silver Lake Reservoir Stormwater Capture Project will deliver up to 159 acre-feet of stormwater per year on average. In addition to the beneficial use of stormwater, this project will also help improve water quality within the Los Angeles River and Ballona Creek.

Next Steps

Master Planning process led by the Bureau of Engineering and funded by LADWP will begin in 2018. The Master Plan will include community input on the future passive use of Silver Lake Reservoir.

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