

### What are the reasons Valley Water releases water from Lexington?

Mostly, the water released from Lexington through its outlet is for water supply. This released water percolates into our groundwater basins where it is later pumped from wells. We also release water to sustain the habitat downstream. Finally, during the rainy season, Valley Water operates the reservoir to try to maintain storage space for a moderate rainfall event which will allow for controlled releases to the creek. These releases are made when it is safe to do so and only once the reservoir is nearing capacity. When we make these releases, there's a strong probability that the released water will be recovered with the upcoming rains.

### What's the difference between an outlet and a spillway?

A dam's outlet is a pipe that runs under or around the bottom of a dam. An outlet has a valve that can be open or shut to control how much water is released to the creek downstream of the dam.

A spillway is a concrete chute that only carries water when a reservoir is full. The spillway at Lexington Reservoir, like most spillways, has no valve, gate or other method of flow control. Water flows through it by gravity when the reservoir level exceeds its capacity, and water "spills" over the spillway.

The outlet at Lexington was modified from 2007 through 2009. The original pipe, more than 30 years old, had begun to buckle, resulting in restricted releases. The project increased the amount of water we can release through the outlet pipe from 70 cubic feet per second to 410 cubic feet per second.

### What is the water in Lexington Reservoir used for?

The water in Lexington Reservoir is used to replenish groundwater supplies. Water is captured during the rainy season and gradually released to Los Gatos Creek throughout the year. Downstream, the released water is diverted to a series of groundwater recharge ponds that percolate the water to increase the groundwater

levels and storage in the aquifer. Water released into Los Gatos creek also makes its way to the underground aquifer as it travels down the creek. This system is an integral component of Santa Clara Valley's water supply. Lexington has no direct connection to any of our water treatment plants.

In addition, water released from the reservoir also helps to keep the creek flowing for fish, animal and plant habitat.

### How often does Lexington reach capacity?

Lexington Reservoir has reached capacity many times. In recent history, it was full in 2005, 2006, 2011, 2017 and now in 2019. This occurs when the amount of rainfall in the watershed above Lexington Reservoir is so great that the amount of water flowing into the reservoir over a period of time exceeds the amount flowing out through the dam's outlet.



Lexington Reservoir

## Should we be worried when the reservoir capacity is above 100%?

Lenihan Dam, the dam that forms Lexington Reservoir, was built with a spillway that can safely pass a large flow of storm run-off. During an intense storm, our reservoir gauge may show a figure that's well over 100% of the reservoir capacity, but that excess water will ultimately flow over the spillway. The spillway at Lexington has successfully conveyed flows every time the reservoir has spilled into it.

However, areas downstream could potentially flood when high flows pass over the spillway into Los Gatos Creek. If the reservoir is full and a large amount of storm run-off continues to flow into the reservoir, the excess water has nowhere to go but through the spillway to Los Gatos Creek. These flows from the reservoir combine with other creeks and storm drains providing water to the creek. If too much water enters the creek at one time, the high flows can flood low lying trails and local areas along the creek.

## How did Lexington Reservoir look during the 2017 floods from Coyote Creek?

In the winter of 2016-2017, Lexington Reservoir reached capacity in mid-January, and continued spilling, off-and-on, through the winter and early spring, but no significant flooding occurred downstream. Parts of the Los Gatos Creek Trail were flooded for several weeks, as the trail dips into the creek bed in some places. At one point, parts of Vasona Park were flooded. There was no flooding in Lower Guadalupe River, even though there were flows over Lexington's spillway.



A large tree partially submerged in the Lexington Reservoir near Los Gatos.



Lexington Reservoir

## Can Lexington's water storage be kept lower to reduce the risk of flooding downstream?

Given the recently updated information that flood risks in Lower Guadalupe River are higher than previously known, we will continue to do our best to manage the water level in Lexington Reservoir, until a more appropriate solution is implemented. We are currently making releases from Lexington with a target of reducing the storage level in the reservoir. Strong storms that produce significant inflows to Lexington could result in the reservoir exceeding this target at times and potentially spilling.

Managing a reservoir to provide greater flood risk reduction is not a decision we take lightly. Many important factors come into play.

- If we release large amounts of water to manage flood risks downstream, there's then a risk that there won't be enough water to meet water supply needs and provide for fish habitat downstream. This can happen even if we don't release water for flood control. During the historic drought of 2012-2016, Lexington had too little water to keep Los Gatos Creek flowing all the way to its confluence with Guadalupe River.
- The dam and reservoir were built and are maintained using water

rates. All of the revenues collected through water rates must be used for purposes related to protecting and augmenting our water supplies. If the dam were operated for flood control, the value of that lost water would need to be funded from other revenues.

- Releasing stored water for flood risk reduction could impact our ability to fully exercise our water rights license.

## What's the history of Lenihan Dam and Lexington Reservoir?

In 1952, on the strength of a \$2.5 million bond, the agency that ultimately became Santa Clara Valley Water District started and completed the 195-foot high, 1,000-foot thick earthen dam and the adjacent reservoir that could store more than 19,000 acre feet of water. One acre foot of water can supply two families of five for a year.

Both took the name of the small town of Lexington, originally located along Los Gatos Creek. The remnants of the abandoned town were submerged beneath 130 feet of water as the new reservoir filled. In 1996, the water district renamed the dam in honor of Jim Lenihan, its longest serving director at 37 years.

## CONTACT US

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