Riffe Lake Level Facts

November 2018

MOSSYROCK DAM IS OUR LARGEST PRODUCER OF CLEAN, RENEWABLE HYDROPOWER. THE DAM FORMS RIFFE LAKE, WHICH OFFERS FISHING AND RECREATION OPPORTUNITIES.







Mossyrock Dam spillway piers - top view

Spillway piers - side view

Spillway gate

Four spillway gates are held in place by five spillway piers. During a large earthquake the piers could break, causing an uncontrolled water release, which is why we have drawn down the lake.

OVERVIEW

After receiving updated earthquake information, we lowered maximum Riffe Lake levels in 2017 by about 30 feet to ensure the safety of downstream communities. We worked with our regulators to make this decision, and they approved our plan to voluntarily lower the level. Because public safety is our top priority, we will keep the lake lowered at least well into the next decade.

The structural integrity of the dam has not changed. Based on current science, we believe the dam itself is safe. No major concrete arch dam is known to have failed due to an earthquake. Our concern lies with the spillway system, which could fail during a large earthquake. For this reason, we are keeping the lake level near the bottom of the spillway system.

PROGRESS UPDATE

We know people are looking forward to a solution. Working through this is a top priority for us. We have been collaborating with industry experts on additional studies of the effects of earthquakes on the dam. These studies are complex and time-consuming. While some structures have consistent earthquake building codes, dams do not. Mossyrock Dam, its location and our region's earthquake risks are unique. Since there aren't any direct comparisons in the entire world, we need to create a new standard and also get agreement on it from industry experts and our regulators. This process will take years.

Once we have agreement on the structural impacts, we can focus on developing and evaluating all feasible solutions, which could include a permanent lower lake level.

In the meantime, to maintain recreational opportunities, we:

- Built a new boat launch and swim beach at Mossyrock Park this year. Feedback so far about both has been very positive.
- Continued to operate parks that receive high customer satisfaction scores. Mossyrock, Taidnapam and Mayfield Lake parks have seen similar usage as in past years. The day-use site traffic has even increased in some cases.

Please note: There may be extended periods of time in the winter when it is difficult to access the lake since we'll be starting the season at a lower lake level than in the past.

We will also continue to follow our rigorous dam safety program, which includes:

- Using special equipment in and near the dams to monitor for changes or movement.
- Inspecting each dam every day.
- Performing detailed mechanical, electrical and facility inspections weekly and monthly.
- Participating in regional exercises to practice coordination in an emergency.
- Performing annual tests of our emergency sirens.