

PG&E plan may reduce water flowing into Lake Mendocino

BY MARY CALLAHAN THE PRESS DEMOCRAT on October 17, 2014, 2:13PM10/17/2014

A plan by PG&E to temporarily shut down a powerhouse that feeds water from the Eel River to the Russian River may cut into consumer supplies this winter by further reducing the amount of water coming into Lake Mendocino.

Already, the reservoir, the second-largest on the Russian River and the main surface supply for residents and agricultural users north from Healdsburg to the Ukiah Valley, is at historically low levels. Parched by more than three years of drought, it currently sits at just more than 33 percent of normal.

Water managers say that supply could be further strained by PG&E's proposal to unplug its Potter Valley Powerhouse for 3½ months to replace two massive valves in the penstocks and make additional repairs to keep the powerhouse operational.

PG&E says the repairs are needed to prevent the aging facility from breaking down.

But depending on the kind of rainfall the region experiences this season, the impact of PG&E's plans on the local water supply could be "pretty significant," said Pam Jeane, assistant general manager of the Sonoma County Water Agency.

As much as 70 or 80 percent of the normal actual diversions are at stake — upwards of 25,000 acre feet over the course of the repair period, according to Water Agency personnel. That's almost as much water as is currently held in Lake Mendocino, or close to half of the nearly 55,000 acre feet the Water Agency delivered last year to its 600,000 customers in Sonoma and northern Marin counties, though that supply comes from a variety of sources, including the much larger Lake Sonoma.

Federal regulators hold authority to approve the shutdown and are expected to do so, pending a 30-day comment period underway.

But the power company has pledged to maintain minimum diversions to ensure some continued boost of wintertime flows through the Russian River's East Fork and on to Lake Mendocino.

It would use a dry creek channel near the powerhouse to divert at least 20 cubic feet per second into the Russian River, though PG&E says it hopes it will be closer to 23 cfs. That's actually more than the average amount of water put through the plant last winter because of severe dry weather after December, said Alvin Thoma, director of power generation and hydropower licensing for PG&E.

"But it is still substantially less than would flow during this time period if we were not doing the work," he said.

Decent rainfall in the Russian River watershed would be enough to fill Lake Mendocino and ensure sufficient water supply next year even without supplementation from the Eel River, water managers say. Abundant rain would potentially force releases from Lake Mendocino for flood control purposes anyway, nullifying any water supply impact from the Potter Valley work.

But the prospect of continued dry weather could mean the reduced diversions critically impact water supply along the Russian River north of its intersection with Dry Creek, which delivers water from Lake

Sonoma.

“It’s going to mean less water flowing into the lake probably during the worst possible time it could ever happen,” said Sean White, general manager of the Mendocino County Russian River Flood Control and Conservation Improvement District, which holds rights to 8,000 acre feet of water in Lake Mendocino.

“It’s an emergency situation, and we can’t see that powerhouse fail, so we’re just going to have to deal with it,” said Josh Fuller, a fishery biologist with the National Marine Fisheries Service. “But the timing is not great.”

The Potter Valley Powerhouse, built more than a century ago, taps flows from the Eel River to generate electricity, funneling water into the nearby east fork of the Russian River.

Water for the powerhouse is diverted from the Eel River at Van Arsdale Reservoir through a tunnel more than a mile long.

The water descends into the plant via long sluices, or penstocks, passing through turbines before it is released to the Russian River in rural Potter Valley on the eastern side of Mendocino County. Lake Pillsbury was constructed upstream of the smaller Van Arsdale to impound a larger volume of water during the rainy season for later release and use in producing energy.

Though built to generate hydroelectricity, the plant has become integral to the Russian River water supply system, often providing crucial late-season and spring augmentations from Lake Pillsbury. Like most other facilities and waterways on the North Coast, it’s also managed with an eye toward sustaining fisheries.

The project, licensed by the Federal Energy Regulatory Commission, is normally required to release enough water at this time of year to maintain stream flow of 35 cubic feet per second in the east fork of the Russian River — at least in “normal” or “dry” years. An additional 5 cfs is released to ensure sufficient volume to meet its contract obligations to more than 300 agricultural users served by the Potter Valley Irrigation District, as well as an additional 5 cfs above that to account for any water lost to groundwater exchange, evaporation and seepage, PG&E and Water Agency personnel said.

But when water is plentiful, PG&E may transmit up to 250 cfs through the plant, said Don Seymour, the Water Agency’s principal engineer.

Thus, the plant has diverted, on average, about 34,000 acre feet of water into the Russian River during the Nov. 1 to March 15 time frame from 2007 to 2013, he said. Especially in years where rainfall is more generous on the Pillsbury side of the mountain, Seymour said, “that water can be a huge benefit.”

PG&E spokeswoman Brittany McKannay said the total diversions would reach only about 7,000 acre feet during this year’s 3 ½- month maintenance period, though the company is making a concerted effort to complete the repair work in less time.

But there is no way to avoid doing the work if the system’s reliability is to be ensured, Thoma said. He said the valves date back to the beginning of the plant, which was first put into operation in 1908. The repair project was timed to have the least impact on wildlife, though water supply was taken into account, as well, he said.

“We tried to time it in a way that we thought would have the least impact for those considerations,” he said.

Jeane and other Water Agency personnel, who were only alerted to the plan a month ago, said it would have been helpful to know earlier, in order to better manage supplies.

“It may or may not have impacts,” Seymour said. “It just depends on what’s going to happen this year with rainfall.”

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