

# 109-year-old Potter Valley Project the controversial link between Russian and Eel rivers

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About 80 feet behind the PG&E hydropower plant in Potter Valley, gray-green silt-laden water from the Eel River passes through a steel gate and is invisibly transformed.

It has become part of the Russian River, which provides water for more than 600,000 people from Redwood Valley to northern Marin County.

“Once it passes the gate, it’s river. We have no more use for it,” said Mike Evans, an operator at the Potter Valley Powerhouse, which has been generating electricity since 1908.

The future of the powerhouse, a 5,000-square-foot no-frills industrial building that houses three generators, will be determined by a relicensing process initiated last week under Federal Energy Regulatory Commission protocols.

It will take at least five years to conclude the relicensing, which includes the possibility that the Potter Valley Project — the powerhouse, two dams on the Eel River and a system of tunnels and pipes delivering water through a mountain, purchased by PG&E in 1930 — will be decommissioned.

Critics say the project should be shut down, and the annual diversion of 70,000-acre-feet of Eel River water ended, to improve conditions for the river’s imperiled salmon and steelhead. An acre foot is about 326,000 gallons, or enough water to flood a football field 1-foot deep.

Sonoma County water managers and Mendocino County ranchers and officials insist the inter-river water transfer is crucial to the wellbeing of people and threatened fish in the Russian River watershed.

There are also questions about the powerhouse, tucked into the north end of Potter Valley on a dead-end road.

David Keller of Petaluma, a leader of Friends of the Eel, a group that advocates decommissioning, said the powerhouse, rated at 9.2 megawatts — enough to power about 7,000 homes — often runs below capacity. The plant is inefficient, expensive to operate and could be replaced by wind or solar power facilities.

The plant's real value, he said, is conveying the 70,000-acre-feet of water diverted from the Eel each year and delivered to users in Mendocino, Sonoma and Marin counties who "never paid a dime for it."

The only water payments PG&E receives are from ranchers in Potter Valley who use a portion of the diverted water to irrigate their land.

The plant's 9.2-megawatt capacity amounts to 0.1 percent of PG&E's 7,689-megawatt power production.

"The numbers speak for themselves," said David Moller, a director in PG&E's power generation department, when asked if the Potter Valley Project produced a negligible amount of electricity.

The utility's portfolio includes many clean power projects — solar, wind and biomass — of equivalent size or smaller. "They all add up," he said.

Water drawn from the Eel at Van Arsdale Reservoir, located over a ridge a short drive from the powerhouse, runs through a mile-long tunnel drilled through bedrock, and then a series of pipes for about 1,800 feet — all nearly level.

For the final 1,800 feet, the water falls nearly 500 feet through a pair of penstocks, building up pressure to spin the three generators, which date back to the 1930s.

When it leaves through three concrete tail races, the water soon becomes the Russian River's East Fork.