

## Narrows 2 Fact Sheet

- The Narrows 2 Hydroelectric Plant Synchronous Flow Bypass System is a new water bypass system comprised of a 150-foot hard-rock bypass tunnel and 12 foot diameter tunnel liner, a new outlet valve structure, and a new 6 ½foot diameter cone dispersion valve.
- The new bypass can release up to 3,000 cubic feet per second (cfs) of cold water into the lower Yuba River for fisheries purposes if the hydroelectric plant's electricity is suddenly lost.
- Narrows 2 is part of the Yuba River Development Project, owned and Operated by Yuba County Water Agency (YCWA). This facility is capable of generating up to 50 megawatts of carbon free, renewable hydroelectric power – or enough electricity for 20,000 California homes. All the electricity produced by Narrows 2 is marketed by the Pacific Gas & Electric Co.
- Narrows 2 is located 400 feet downstream from the U.S. Army Corps of Engineers' Englebright Dam and 24 miles upstream of the Yuba River's confluence with the Feather River near Marysville.
- Englebright was constructed in 1941 and designed to contain mining debris from hydraulic gold mining. Because of its purpose, it was built to only release water via the spillway at the top of the dam, or through a powerhouse facility. Prior to the construction of the new bypass, Narrows 2 could only release 650 cfs when it was off-line, much less than the full rated hydroelectric plant flow of over 3,400 cfs when it was on-line. An emergency shutdown of the hydroelectric plant caused by lightning or other act of nature could reduce flows into the lower Yuba River until the hydroelectric plant could be brought back on-line.
- The bypass will ensure a continuous release of cold water flows into the lower Yuba River for protected fall-run Chinook salmon, spring run Chinook salmon and steelhead, in the event of emergency outages or during scheduled maintenance.



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- The lower Yuba River is an essential tributary to the Bay-Delta ecosystem as it nurtures one of the last wild salmon and steelhead runs in California's Central Valley. Protecting fisheries habitat by reducing flow fluctuations in the lower Yuba River, such as those that previously occurred at Narrows 2, is a goal of the CALFED program.
- The bypass provides a secondary fisheries benefit. Because Englebright Dam's spillway is located at the top of the dam, any summer or fall season water released from that point is warmer than the water pulled from the lower depths of the reservoir. By pulling water from the depths of the reservoir, rather than the surface, the bypass can also provide colder water for the lower Yuba River's fisheries, eliminating stress from the warmer water that can be harmful to the fisheries.
- CALFED financed approximately \$8.5 million of the project's costs through California Resources Agency grants, while YCWA financed the local share of more than \$4 million. The bypass was commissioned into service in January 2007.

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