



FACT SHEET

Lower American River Gravel Augmentation Project

Big Trucks for Baby Fish

August 26, 2019

A new project to protect salmon and steelhead in the Lower American River is scheduled to begin in September at Sailor Bar across from the Nimbus Fish Hatchery. Over a four-week period, 14,000 tons of gravel will be laid into the river as part of the Water Forum's work to promote spawning of native salmon and steelhead, which has been limited because of Nimbus and Folsom dams.

Fall-run Chinook Salmon migrate upstream as adults to spawn from October through December. In the egg-laying process, females create a "nest" in loose gravel in flowing water, depositing their eggs and then covering them up with more gravel. Gravel is carefully placed in the river before fall-run salmon are triggered by cooling temperatures to spawn, and after the high spring and summer flows.

Upper Sailor Bar has been a prime area for salmon and steelhead to spawn, but spawning beds degrade with time and high flows. The spawning gravels were restored about 10 years ago with great success. However, the site needs refurbishing to restore the spawning gravels and create new juvenile fish rearing habitat.

The project will be excavating a new side channel through the bar and lowering the floodplain, sorting excavated gravel and adding gravel to the river. Once finished, it will provide an ideal area for salmon and steelhead to spawn, as well as protected nursery areas for young fish to grow bigger.

This river restoration is made possible through a partnership with the U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, Sacramento Area Flood Control Agency and the Sacramento Water Forum. It will be our ninth project restoring fish spawning gravel beds and improving juvenile fish rearing habitat on the lower American River. Previous projects were built along Sacramento Bar, Sailor Bar, River Bend Park and Nimbus Shoals.

Construction is scheduled to begin in early September and completed by early October. Work will be scheduled Monday through Friday from 8 a.m. to 6 p.m.

If you have any questions, please contact Lilly Allen at lallen@waterforum.org, (916) 808-1997.

FREQUENTLY ASKED QUESTIONS

Why is this project occurring in September—aren't salmon starting to arrive in the river?

September is a "sweet spot" for working in the river safely and before fish begin spawning. Even though you might see fish in the river, they don't start spawning until the water temperature cools off later in the fall. And the seasonally lower September flows allow in-river work, rather than trying to bring equipment into the river during higher summer flows. September is also safer for recreationists by avoiding the busiest rafting and boating summer weeks. Timing avoids when eggs are in the gravel, which begins at the end of October and is triggered by low temperatures.



Will mud and other construction impact salmon migration in the river?

We monitor turbidity and other parameters during construction and keep levels below standards required by the regional water quality control board. Turbidity also provides some cover for predators in natural settings. Adult salmon are least affected by turbidity and are able to avoid areas they find too turbid, whereas eggs cannot. This is another reason why we do work during September-October. It's also worth noting that the turbidity created by this project is less than during floods.

Is this project really necessary?

Without this and other similar projects, the river would continue to scour, leading to an incised channel through time, spawning gravel would not be replenished for salmon along the river and adult salmon would not have the necessary spawning riffles they need to reproduce.

How does this and other gravel restoration projects benefit fisheries?

The Water Forum continuously collects data to evaluate whether our efforts are making a positive difference. Our biologists have found that gravel restoration projects have provided significantly better outcomes for salmon. We are devoted to learning from each project and making sure to build the best projects using that knowledge. We do extensive monitoring to understand our impacts and are able to document the progress we're making. Salmon recovery is a multifaceted project, and spawning gravel is one important step of many. If you'd like to learn more about the Water Forum's habitat management on the lower American River, please visit <http://waterforum.org/the-river/habitat-management/>

Does water flow have a more significant impact than restoring gravel?

Certainly flow is critical to healthy fisheries, and the Water Forum has been working for decades to develop a flow standards to preserve and protect salmon and steelhead. That said, ensuring adequate spawning beds is also important and is almost certainly critical given the way the river runs at a significant sediment deficit. If you'd like to learn more about the Water Forum's plan for managing flows in the lower American River, please visit <http://waterforum.org/the-river/flow-management-standard/>

Doesn't the gravel just wash away?

The lower American is a living river, and gravel movement is part of a natural process. Since dams block new gravels from flowing into the lower river, and existing river gravels keep moving downstream, it's important to keep replenishing spawning gravels for fish. Projects like this one are important and ongoing.

How and when do you monitor the river to evaluate the overall health of the river and fishery?

The Water Forum continuously monitors and collects data to evaluate the health of the river and fishery, including conducting a variety of studies such as long-term aerial redd surveys, on-the-ground redd surveys, lifecycle monitoring (otoliths), multi-generational monitoring (genetics), early life stage survival, sediment budget and more. You can learn more about the Water Forum's science and monitoring program at <https://www.waterforum.org/the-river/fish-conditions/>.

What kind of public outreach has been done for this project?

Outreach to date has included:

- Briefings for the Sacramento County Regional Parks Recreation and Parks Commission and American River Parkway Advisory Committee
- Outreach related to environmental review process (NEPA and CEQA)
- Direct mail sent to neighbors within 500 feet of the project



- Outreach via social media (Facebook and Nextdoor)
- Signs on the American River Parkway
- Information posted to the Water Forum website at waterforum.org

What kind of environmental review has been done for this project?

The project has undergone a CEQA and NEPA analysis. You can find environmental documentation at <https://www.waterforum.org/resources/resource-library/>.

What are you doing about addressing homeless impacts on the river?

The homeless impacts are a serious issue on the parkway and in the river and unfortunately, there are no simple solutions. It is going to take a concerted effort of our entire community to tackle this one. The City and County of Sacramento are working on this issue (<http://tinyurl.com/y35yuk7f> & <http://tinyurl.com/y5mxn5su>) as well as the State Water Resources Control Board (<http://tinyurl.com/y26t25ar>). The Water Forum will be tracking these efforts and contributing where most appropriate.

Whom can I contact for more information?

Please contact Lilly Allen with the Water Forum at lallen@waterforum.org, (916) 808-1997.