

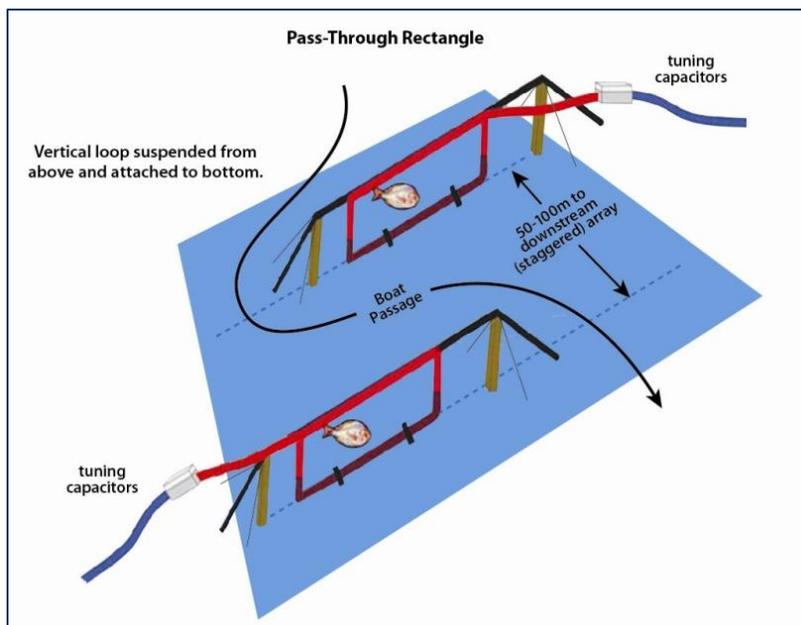


Field Activity Advisory San Joaquin River PIT Tag Monitoring of Fall-run Juvenile Salmon Releases March-June 2014

To continue collecting data that will help the San Joaquin River Restoration Program (SJRRP) understand how juvenile Chinook salmon move through the San Joaquin River, Passive Integrated Transponder (PIT) tag arrays will be installed and monitored at locations along the San Joaquin River through June 14, 2014, that would allow tracking and identification of every individual PIT-tagged fish. PIT-tagged juvenile fall-run salmon that are being released into the river are the offspring of adult fall-run Chinook salmon from the fall 2013 trap and transport to Reach 1 that were streamside spawned.

Who: Bureau of Reclamation

What: PIT tag arrays (antennas) will be installed in Reach 1 of the San Joaquin River upstream of Gravelly Ford. At each site, Reclamation will build either a flat design on the bottom of the river that can be floated over when in a boat or kayak, or a pass-through design. The pass-through will be constructed in a pair of two arrays: an upstream array partially enclosing the channel followed by another array 50-100 yards downstream constructed partially across the channel from the opposite bank. This design of paired, staggered arrays will allow for continuous boat passage. These arrays use a single loop of wire across the bottom of the river and coming back to the shore, forming a loop that is attached to a high tensile strength ¼ inch Kevlar rope. The array is supported by t-posts on shore.



The two wire ends feed directly into a tuning box which completes the loop (figure below). A wire then leads to a secure steel job box that contains the PIT tag reader and power supply (12-volt battery). A fish swims through the wire loop and the magnetic field created by the wire loop excites a capacitor in the tiny 12mm-long PIT tag which then transmits an individual code. The reader records the code and the time of transmission. The placement of arrays provides the “last detection” data and can show where the highest losses of fish occur.

Where: The arrays will be installed in 7 locations in Reach 1 of the San Joaquin River to track fish movement.

PIT tag array diagram

When: Starting March 1 crews will be installing arrays, which will operate for approximately three months and will be removed by June 14, 2014. The arrays will be visited weekly for maintenance during this period.

Considerations: Kayaks, canoes, and jet boats can freely pass over the flat arrays and maneuver around the pass-through design. All array sites will have flashing yellow lights, marked by buoys, and will have a sign posted with Program contact information if there is any problem. The sites will be visited by staff weekly to ensure array integrity and inspect for potential problems.

Access to the array locations will occur from the public right-of-way or in areas where private landowners have granted access.

Questions about this activity should be directed to the study's agency points-of-contact using the information provided below.

Donald E. Portz, PhD

Fisheries Biologist, Bureau of Reclamation
Phone: 303-859-9505
Email: dportz@usbr.gov

Questions about the SJRRP's field activities on public and private land should be directed to the SJRRP Outreach Coordinator or Landowner Coordinator using the information provided below.

Margaret Gidding

Outreach Coordinator
Office (direct line): 916-978-5461
Mobile: 916-335-4770
Email: mgidding@usbr.gov

Craig Moyle

Landowner Coordinator
Office (direct line): 916-418-8248
Mobile: 916-642-6383
Email: craig.moyle@mwhglobal.com

Contact the SJRRP Hotline, 916-978-4398, or email RestorationFlows@restoresjr.net if you see any problems or have any concerns.

For more information, please visit the SJRRP Web site at www.restoresjr.net.

Field Advisories for activities are available at www.restoresjr.net/activities/field/index.html