SAN JOAQUIN RIVER RESTORATION PROGRAM

Field Activity Advisory
Inventory and Monitoring of Fish Abundance and Diversity
June 3-14, 2013

This notice is to inform the public of an upcoming research study to identify abundance and diversity of fish species at locations throughout the San Joaquin River Restoration Area. Collecting a quantitative baseline of fish within the Restoration Area is an important step to detect change over time through long-term monitoring. Information on chronological analysis of the temporal and spatial distribution, abundance, and diversity of fish species will help with the Program's assessment of the Restoration Goal's success. This information can be used to adaptively manage future efforts for more effective implementation of the Restoration Goal.

Who: Bureau of Reclamation, U.S. Fish and Wildlife Service (FWS), and California Department of Fish and Wildlife (DFW)

What: Inventory and monitoring of the fish communities within the five reaches of the Restoration Area (from Friant Dam to the Merced River confluence) will be documented to provide data of fish types, species numbers, and locations of occurrences. Approximately 21 native fish species historically inhabited the SJR. At least eight species are now uncommon, rare, extinct, or replaced by nonnative fish. Existing data on fish abundance and diversity, standard sampling techniques, and a framework for long-term monitoring is important in measuring program success over time as fish populations may take years to respond to management actions.

Sampling techniques that will be used to inventory fish species include the following:

1. Boat and raft mounted electrofishing vessels will be used to stun and capture fish species in a wide variety of habitats and broad areas accessible by boat. Biologists have been trained on this fishery technique and will not use it in the direct proximity of other river-users.

2. Backpack electroshockers will be used to sample shallow waters, backwaters, and riffle habitats by electrically stunning fish. Biologists have been trained on this fishery technique and it poses no public danger.

3. Trammel nets will be set to sample channels with low velocities or no flows. Trammel nets will also be drifted for short durations on main channels with higher flows. These nets are advantageous and relatively efficient in turbid waters. For safety reasons, brightly colored floats will be used to attach to the head rope so boaters and other recreationists can avoid entanglement. While drifting, fisheries biologists tend the nets at close distances and retrieve nets in short time intervals.

4. Fyke nets will be set to target larger fish as they move upstream in the river. These nets are funnel-shaped nets that are held open by hoops. Fyke nets will be checked at least once a day and will not be set at the same location for more than three days. Fluorescent flagging, red buoys, and flashing amber caution lights will alert recreationists and other river-users to the nets. The wing walls will span less than half of the river width so ample boat passage is available.

5. Beach seining will be used to sample shallow water habitats. Nets are stretched out and dragged through the water, closing the net as it is waded to a river bank. Nets are 25 and 50 feet long and will be deployed only under biologist supervision.

All captured aquatic organisms, including invertebrate bycatch, will be identified (invertebrates may only be identified to genus), recorded, measured, and weighed. Fish species captured will also be investigated by observation for physical health and morphological anomalies. Additionally, water quality parameters such as salinity, temperature, and dissolved oxygen will be recorded at each sampling site, as well as general habitat type (e.g., riffle run, pool, glide, inundated floodplain, etc.).

Where: Predetermined sampling locations throughout the San Joaquin River Restoration Area from just below Friant Dam to the confluence with the Merced River.

Tentative Schedule:

Reach 1 – June 3-6, 8
Reach 2 – June 7-8
Reach 3 – June 9-10
Reach 4 – June 10-11
Reach 5 – June 12-14

When: June 3-14, 2013. These activities will occur quarterly during the months of March, June, October, and January in all reaches of the Restoration Area annually through 2019. Quarterly sampling will ensure temporal and spatial habitat use is quantified to measure the diversity and abundance for resident and migratory fishes.

Considerations:

Access to the 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.

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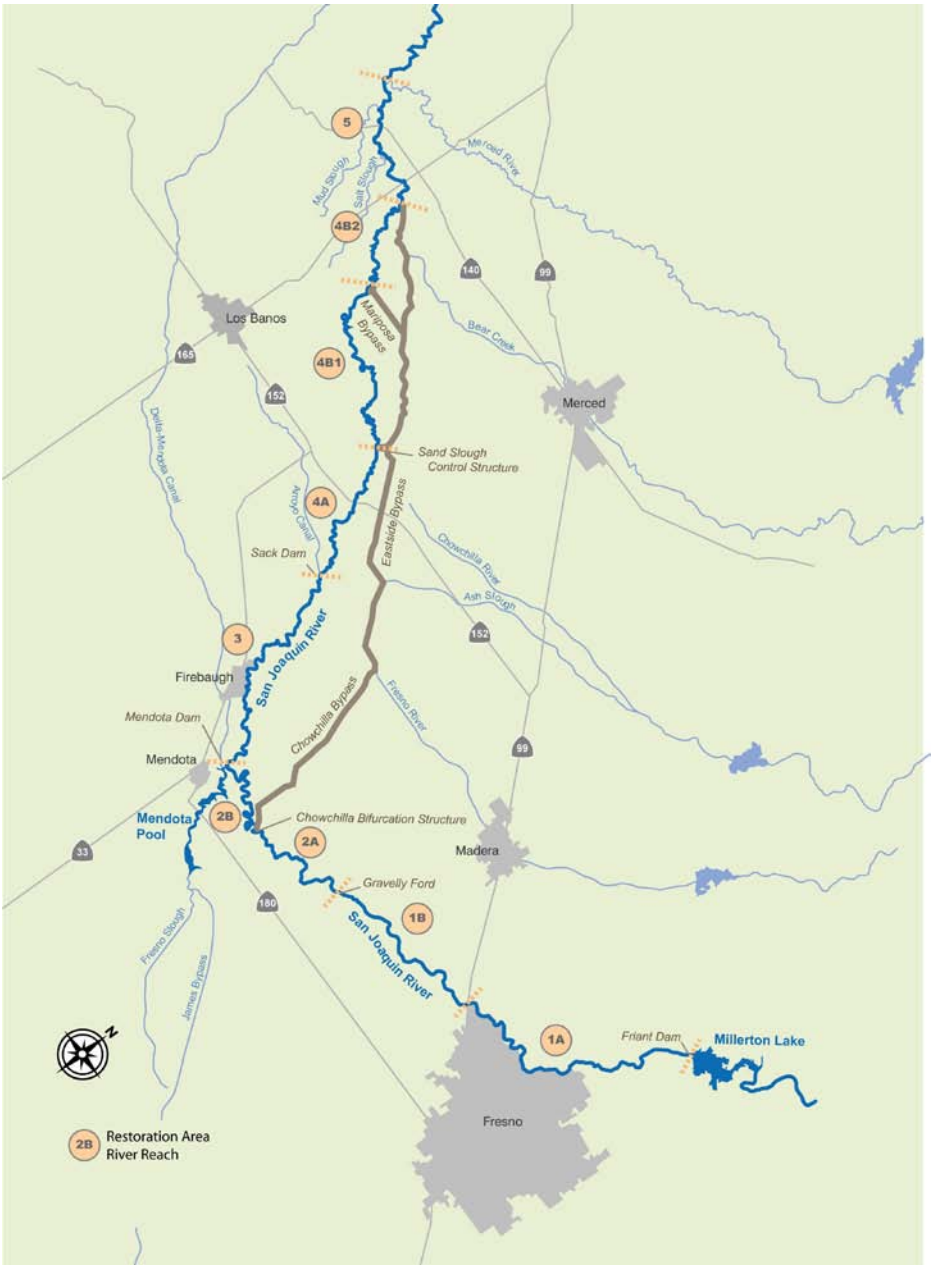

Reaches of the San Joaquin River Restoration Area

Sites being considered and coordinated within each Reach:

Reach 1: Friant Dam, Lost Lake, Vulcan Mine Pits, Highway 41 Mine Pits including Ledger Island, Skaggs Bridge County Park, Gravely Ford

Reach 2: Chowchilla Bifurcation Structure, San Mateo Crossing, Mendota Pool

Reach 3: Downstream of Mendota Pool, Firebaugh City Park, Upstream of Sack Dam, Mouth of Arroyo Canal

Reach 4: Below Sack Dam, Highway 152 Bridge, Sand Slough Control Stucture, San Luis National Wildlife Refuge

Reach 5: Salt Slough Confluence, Grasslands State Park, Mud Slough Confluence, Newman Wasteway, Merced River Confluence

For the quarterly activities, sites with no water at that time will not be visited.

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

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Contact the SJRRP Hotline, 916-978-4398, or email InterimFlows@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