

QUARTERLY ACCOMPLISHMENT/PROGRESS REPORT TEMPLATE

APPLICABLE TO CALIFORNIA FISH PASSAGE FORUM (CFPF) FUNDED PROJECTS, ADMINISTERED BY USFWS

I. **Project/Program Title:** Salt River Ecosystem Restoration Project – Monitoring Phase 1 Estuary

II. **USFWS Grant Number:** # F14AC01186

III. **Quarterly dates covered by this report (check appropriate quarter):**

Jan–March _____ April–June X July–September _____ October–December _____

IV. **Date report submitted:** 24 August 2015

V. **Briefly summarize (2-3 sentences) overall progress/accomplishments during the applicable quarter:**

Low tide fish sampling occurred across the 330 acres of restored estuary where 11 sites were sampled monthly over a two day period. Eelgrass, cross-sectional, and longitudinal surveys were started in June. Fish passage was assessed across the restored estuary and up the main Salt River channel to connected tributaries.

VI. **Task-specific/deliverable updates** (for each task in the cooperative agreement, provide a brief update on progress; provide brief update on significant work toward, or completion of any deliverables from the cooperative agreement):

Water Quality Monitoring – Temperature loggers were deployed at the end of May in three tributaries in the Salt River watershed (5 monitoring sites). Supplementary water quality parameters were recorded during the deployment, such as Dissolved Oxygen, pH, Total Dissolved Solids, Conductivity, and Salinity. Additional water quality loggers (Dissolved Oxygen, water level, and salinity) will be deployed at five stations across the restored estuary and at one site upstream on the Salt River. The results of this monitoring will assess salmonid habitat conditions and determine the success of various restoration efforts.

Cross-Sectional and Longitudinal Surveys – Surveyors began six cross-sections surveys across the restored estuary. Two cross-sections sites are located on the main Salt River channel. Two other cross-sections sites are located on the northern slough channel network. And the final two cross-section sites are located on the southern slough channel network. The results of the surveys determine the response of the restoration construction to the dynamic tidal environment and whether any corrective action is warranted.

Salmonid Surveys – In the funding proposal, it states fish surveys/sampling would take place at two sites twice a year. However, a fish sampling program was developed with the cooperation of CDFW, NOAA/NMFS, Ducks Unlimited, Humboldt State University, and the Humboldt County Resource Conservation District several months after the submitted proposal. The program has increased the number of sites to 11, where low tide sampling takes place once a month from March to July. In March and April, juvenile listed salmonids (Coho and Chinook) were sampled along with listed tidewater gobies. The ubiquitous three-spined stickle back, sculpin, and juvenile smelt were continuously found throughout the estuary. As the restoration stabilizes, it appears that additional marine species (bay pipefish, juvenile flatfish, herring, and gunnels) have begun to utilize the estuary than the previous year. Some of these species tended to be found in locations with eelgrass beds.

Sacramento Pike Minnow – The invasive, non-native, pike minnow are captured during fish sampling in the upper reaches of the Salt River where the water becomes more fresh and brackish. These fish are collected, enumerated, and euthanized.

Assess Fish Passage - Fish passage was assessed at specific sites along the Salt River (such as tributary confluences) in the spring at average high flows and at lower flows in June. No blockages or barriers were observed.

Eelgrass Surveys – In May and June, eelgrass surveys were started in the estuary restoration area. This is the second year of surveys and current results appear to show that the eelgrass recruitment coverage and extent criteria goals will be met.

VII. Any significant developments beyond those reported for specific tasks/deliverables:

This past winter, NOAA/NMFS provided funding for winter fish monitoring sampling surveys. This effort replicates the established low tide spring and summer surveys but extended it to November through February, and added in high tide sampling surveys. This effort helps show how fish species utilize the restored estuary nearly throughout the year. Results from the surveys show continued use by juvenile salmonids along with other species not sampled during the spring or summer, such as long finned smelt.

VIII. Any delays/issues that are impacting or may impact progress of the project:

None.

IX. Summary of invoices/charges to the agreement (include amount and date of any invoices submitted for payment under the agreement, that occurred during the quarter. Optionally, include a summary of charges incurred during the quarter that will be invoiced during the next quarter):

| Month | Description | Amount |
|--------------|--|---------------|
| April | HCRCD Staff Time - Coordinating Eelgrass and Cross-Section Consultants | \$62.69 |

Anticipated work in next quarter:

July fish sampling surveys were performed. Hours and mileage will be invoiced. Water Quality loggers were deployed at five sites across the restored estuary in July. Maintenance of the loggers will occur in August and September. Hours and mileage will be invoiced.

| Month | Description | \$ Amount |
|--------------|---|------------------|
| July | HCRCD Staff Time - oversight, fish sampling surveys, water quality monitoring | \$177.93 |
| | Sean McAllister Subcontractor - Cross-Sectional Surveys | \$1,664.00 |
| | Cole Parmer Water Quality Equipment Purchase | \$132.59 |
| August | HCRCD Staff Time – oversight and water quality monitoring | unknown |
| | Mileage - Fish Sampling in June and July | \$85.34 |

X. Additional information (include pictures, documents, presentations, or similar outputs that were developed during the quarter related to the project and a summary of any outreach activities or significant meetings):



Sampling the Salt River Channel in Eelgrass Beds



Gravid Bay Pipefish in Salt River Channel Eelgrass Beds

Submit quarterly reports to Donnie Ratcliff, U.S. Fish and Wildlife Service (Donald_Racliff@fws.gov) and Lisa DeBruyckere, Coordinator, California Fish Passage Forum (lisad@createstrat.com)