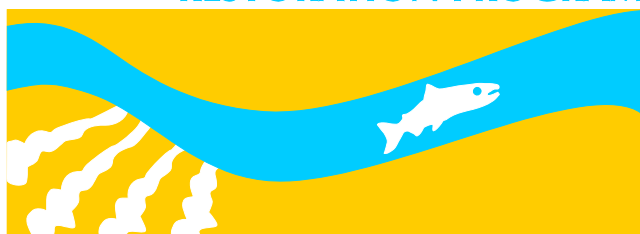


Appendix C

Budget Summary

Final 2012 Monitoring and Analysis Plan

SAN JOAQUIN RIVER
RESTORATION PROGRAM



**San Joaquin River Restoration Program
2012 Monitoring and Analysis Plan
Budget Summary**

| 2012 MAP App. A Section | Title | PI | Budget | Notes |
|----------------------------|--|---|--------------|---|
| 2 | Historical and Water Year 2010-2011 Flow Gage Record Analysis | Katrina Harrison, Reclamation | | Proposals 2-8 funded separately by contracts not yet awarded. |
| 3 | Flow Travel Time from Friant Dam and Tributaries to Gravelly Ford | Katrina Harrison, Reclamation | | |
| 4 | Lateral Gradient of Water Table | Katrina Harrison, Reclamation | | |
| 5 | Terrain Comparison Between Wells and Fields | Katrina Harrison, Reclamation | | |
| 6 | Changes in Salinity Conditions Resulting from Interim Flows | Katrina Harrison, Reclamation | | |
| 7 | Flow Restrictions Due to Seasonal Groundwater Conditions | Katrina Harrison, Reclamation | | |
| 8 | Monitoring Well Network Optimization | Katrina Harrison, Reclamation | | |
| 9 | Vegetation Monitoring | Greg Reed, Reclamation | \$75,876 | |
| 10 | Elderberry Mapping | Erin Rice, Reclamation | \$130,000 | includes funding for pilot veg mapping effort |
| 11 | Water quality and fish 2011 | Marissa Bauer, USGS | | Funded outside MAP process. |
| 12 | Adult Passage – Non-structural passage impediments | Marissa Bauer, USGS | | |
| 13 | Benthic Macroinvertebrate Bioassessment Study | Abimael Leon, DWR | | State contribution. |
| 14 | Refining Fall-run Collection Techniques | Zac Jackson, USFWS | \$299,847.20 | |
| 15 | Egg Survival (Year 2) | Michelle Workman, USFWS | \$75,286.10 | |
| 16 | Fish Assemblage Inventory and Monitoring | Michelle Workman, USFWS Don Portz, Reclamation | \$458,465.00 | |
| 17 | Juvenile Salmonid Migration and Survival (Year 2) | Michelle Workman, USFWS | \$216,565.32 | |
| 18 | Assessment of Predator Abundance and Distribution in Mine Pit Habitat in the San Joaquin River Restora | Michelle Workman, USFWS | \$254,153.10 | |
| 19 | Captive Rearing Study | Paul Adelizi, DFG | | State contribution. |
| 20 | Ecosystems Diagnosis and Treatment Model | Dave Mooney, Reclamation | | Cost estimate cannot be released until contract is awarded. |
| 21 | Evaluation of Law Enforcement Needs and Regulatory Changes to Limit Harvest | Eric Guzman, DFG | | Funding discussions between DFG and Reclamation ongoing. |
| 22 | Fisheries Models of Site Specific Projects | Carl Mesick, UFSWS | | Cost estimate cannot be released until contract is awarded. |
| 23 | Temperature Monitoring of the Cold Water Pool in Millerton Lake | Tracy Vermeyen, Reclamation | \$70,000 | Based on 2011 budget. |
| 24 | Monitoring Spawning and Holding Quality and Quantity | Eric Guzman, DFG | | State contribution. |
| 25 | Pilot Gravel Augmentation Study | Michelle Workman, USFWS | | Cost estimate cannot be released until contract is awarded. |
| 26 | Temperature Monitoring for Adult Migration | Eric Guzman, DFG | | State contribution. |
| 27 | Genetic Analyses of Source Stocks, Broodstock, and In-river Population | Margarita Gordus, DFG | | State contribution through June 2012. Unfunded need after June 2012. Funding discussions between DFG and Reclamation ongoing. |
| 28 | DWR-01H: Water Surface Profile Surveys | Dave Encinas, DWR | | State contribution. |
| 29 | DWR-02H: Water Level Recorder Data Collection and Relocation Needs | Dave Encinas, DWR | | State contribution. |
| 30 | DWR-03C Monitoring Cross-Section Survey and Analysis | Dave Encinas, DWR | | State contribution. |
| 31 | DWR-06C: Reach 1 Sand Storage Monitoring | Dave Encinas, DWR | | State contribution. |
| 32 | DWR-07C: Reach 2A Channel Response | Dave Encinas, DWR | | State contribution. |

**San Joaquin River Restoration Program
2012 Monitoring and Analysis Plan
Budget Summary**

| 2012 | | | | |
|--------------------|--|--|--------------------|---|
| MAP App. A Section | Title | PI | Budget | Notes |
| 33 | DWR-08G: Reach 1A Spawning Area Gravel Mobility | Matthew Meyers, DWR | | State contribution. |
| 34 | DWR-09G: Scour and Fine Sediment Effects on Incubation Habitat in Reach 1A | Matthew Meyers, DWR | | State contribution. |
| 35 | DWR-10G: Effect of Altered Flow Regime on Channel Morphology in Reach 1A | Matthew Meyers, DWR | | State contribution. |
| 36 | DWR-11G: Reach 1A Spawning Area Gravel Mobility Improvement | Matthew Meyers, DWR | | State contribution. |
| 37 | DWR-12G: Reach 1A Spawning Habitat Quantity | Matthew Meyers, DWR | | State contribution. |
| 38 | Monitor Intragravel Dissolved Oxygen Concentrations in the San Joaquin River (Egg Survival) | S. Mark Nelson, Reclamation | \$34,028 | |
| 39 | Hills Ferry Barrier Evaluation | Don Portz, Reclamation | \$218,547 | |
| 40 | San Joaquin River Basin-wide PIT Tag Monitoring Program Evaluation and Site-specific Technology Asses | Don Portz, Reclamation | \$52,452 | |
| 41 | Synthesis and Review of Predator Impacts at Fish Screening and Passage Structures | Norm Ponferrada, Reclamation | \$20,848 | |
| 42 | Central Valley Steelhead (Oncorhynchus mykiss) Monitoring Plan for the San Joaquin River Restoration P | Don Portz, Reclamation | \$377,199 | |
| 43 | Minimum Floodplain Requirements | Norm Ponferrada, Reclamation | \$235,751 | |
| 44 | 2D Hydraulic Habitat Modeling | Elaina Gordon, Reclamation | | May be funded through already allocated 2011 funding or require additional funding depending on level of effort for 2012. |
| 45 | Bed Material Data Collection | Elaina Gordon, Reclamation | \$31,854 | |
| 46 | San Joaquin River Tributary Sediment Transport and Geomorphology Study | Scott Wright, USGS | \$87,571 | |
| 47 | USGS Sediment Monitoring | Al Caldwell, USGS | \$245,850 | Based on FY11 total. |
| 48 | 2D Temp Modeling of Gravel Pits in Reach 1A | Elaina Gordon, Reclamation | \$30,612 | |
| 49 | Fish Passage Evaluation | Amanda Peisch-Derby, DWR | | State contribution. |
| 50 | Water Quality | Chris Eacock, Reclamation | \$323,600 | Based on FY11 total. |
| 51 | Monitor and Manage Invasive Plants | Magill Weber, The Nature Conservancy | \$2,000,000 | Funded outside MAP process through a grant between Reclamation and the San Joaquin River Parkway and Conservation Trust. |
| 52 | High-flow sediment monitoring | Erin Rice, Reclamation | | Cost estimate cannot be released until contract is awarded. |
| 53 | High-flow Aerials | Erin Rice, Reclamation | | Cost estimate cannot be released until contract is awarded. |
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| | | Total identified MAP funding needs: | \$3,238,505 | |