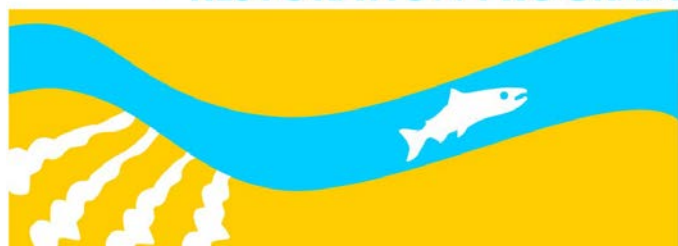


Attachment 1

2012 and 2013 Studies

**Public Draft
2013 Monitoring and Analysis Plan**

SAN JOAQUIN RIVER
RESTORATION PROGRAM



September 2012

Studies in the 2012 and 2013 Monitoring and Analysis Plans

2012 MAP Appendix A Section	Study	Contact	2013 MAP Appendix A Section	Notes
2	Historical and Water Year 2010 – 2011 Flow Gage Record Analysis	Katrina Harrison, Reclamation	1	
3	Flow Travel Time from Friant Dam and Tributaries to Gravelly Ford	Katrina Harrison, Reclamation		Study removed because not imperative for meeting Settlement goals
4	Lateral Gradient of Water Table	Katrina Harrison, Reclamation	2	
5	Terrain Comparison Between Wells and Fields	Katrina Harrison, Reclamation		Included in the monitoring network (Appendix D).
6	Changes in Salinity Conditions Resulting from Interim Flows	Katrina Harrison, Reclamation	3	
7	Flow Restrictions Due to Seasonal Groundwater Conditions	Katrina Harrison, Reclamation		Change in how work is documented. See Seepage Management Plan for seepage projects and conveyance.
8	Monitoring Well Network Optimization	Katrina Harrison, Reclamation		Included in the monitoring network (Appendix D).
9	Vegetation Monitoring	Greg Reed, Reclamation	23	
10	Elderberry Mapping	Erin Rice, Reclamation		Supports environmental compliance.
11	Water Quality and Fish 2011	Marissa Bauer, USGS		Not proposed for 2013.
12	Adult Passage – Nonstructural Passage Impediments	Marissa Bauer, USGS		One year study to be completed in 2012. Not proposed for 2013.
13	Benthic Macroinvertebrate Bioassessment Study	Abimael Leon, DWR		Three year effort to end in 2012. Not proposed for 2013.
14	Refining Fall-Run Collection Techniques	Zac Jackson, USFWS		Ongoing annually. Report provided in the 2012 MYTR.
15	Egg Survival (Year 2)	Michelle Workman, USFWS	8	
16	Fish Assemblage Inventory and Monitoring	Michelle Workman, USFWS/Don Portz, Reclamation	9	
17	Juvenile Salmonid Migration and Survival (Year 2)	Michelle Workman, USFWS	10	

Studies in the 2012 and 2013 Monitoring and Analysis Plans (contd.)

2012 MAP Appendix A Section	Study	Contact	2013 MAP Appendix A Section	Notes
18	Assessment of Predator Abundance and Distribution in Mine Pit Habitat in the San Joaquin River Restoration Area	Michelle Workman, USFWS	11	
19	Captive Rearing Study	Paul Adelizi, DFG	12	
20	Ecosystems Diagnosis and Treatment Model	Dave Mooney, Reclamation		Ongoing, but no study for the 2013 MAP.
21	Evaluation of Law Enforcement Needs and Regulatory Changes to Limit Harvest	Eric Guzman, DFG		Study removed because not imperative for meeting Settlement goals
22	Fisheries Models of Site Specific-Projects	Carl Mesick, UFSWS		Not included in the 2013 MAP.
23	Temperature Monitoring of the Cold Water Pool in Millerton Lake	Tracy Vermeyen, Reclamation	5	
24	Monitoring Spawning and Holding Quality and Quantity	Eric Guzman, DFG		Measurements taken in 2011 and 2012. Not included in the 2013 MAP.
25	Pilot Gravel Augmentation Study	Michelle Workman, USFWS		No data will be collected in 2013. Not included in the 2013 MAP.
26	Temperature Monitoring for Adult Migration	Eric Guzman, DFG		Temperature monitoring to continue. Included in the monitoring network (Appendix D).
27	Genetic Analyses of Source Stocks, Brood Stock, and In-River Population	Margarita Gordus, DFG		Not included in the 2013 MAP.
28	Study DWR-01H: Water Surface Profile Surveys	Dave Encinas, DWR		Ongoing, refer to 2012 MAP.
29	Study DWR-02H: Water-Level Recorder Data Collection and Relocation Needs	Dave Encinas, DWR	24	
30	Study DWR-03C Monitoring Cross-Section Survey and Analysis	Dave Encinas, DWR	25	
31	Study DWR-06C: Reach 1 Sand Storage Monitoring	Dave Encinas, DWR		Ongoing, refer to 2012 MAP.
32	Study DWR-07C: Reach 2A Channel Response	Dave Encinas, DWR		Ongoing, refer to 2012 MAP.
33	Study DWR-08G: Reach 1A Spawning Area Gravel Mobility	Matthew Meyers, DWR	28	
34	Study DWR-09G: Scour and Fine Sediment Effects on Incubation Habitat in Reach 1A	Matthew Meyers, DWR	27	

Studies in the 2012 and 2013 Monitoring and Analysis Plans (contd.)

2012 MAP Appendix A Section	Study	Contact	2013 MAP Appendix A Section	Notes
35	Study DWR-10G: Effect of Altered Flow Regime on Channel Morphology in Reach 1A	Matthew Meyers, DWR	26	
36	Study DWR-11G: Reach 1A Spawning Area Gravel Mobility Improvement	Matthew Meyers, DWR	28	
37	Study DWR-12G: Reach 1A Spawning Habitat Quantity	Matthew Meyers, DWR		Ongoing, refer to 2012 MAP.
38	Monitor Intragravel Dissolved Oxygen Concentrations in the San Joaquin River (Egg Survival)	S. Mark Nelson, Reclamation	8	
39	Hills Ferry Barrier Evaluation	Don Portz, Reclamation		Project will be completed in December 2012. No evaluation proposed for 2013. Fisheries monitoring near Hills Ferry Barrier is included in Study 6.
40	San Joaquin River Basin-Wide PIT Tag Monitoring Program Evaluation and Site-Specific Technology Assessment	Don Portz, Reclamation	15	
41	Synthesis and Review of Predator Impacts at Fish Screening and Passage Structures	Norm Ponferrada, Reclamation		Ongoing, refer to 2012 MAP.
42	Central Valley Steelhead (<i>Oncorhynchus mykiss</i>) Monitoring Plan for the San Joaquin River Restoration Program	Don Portz, Reclamation	14	
43	Minimum Floodplain Requirements	Norm Ponferrada, Reclamation		Report to be completed fall 2012.
44	2D Hydraulic Habitat Modeling	Elaina Gordon, Reclamation		Included in the analytical tools (Appendix E).
45	Bed Material Data Collection	Elaina Gordon, Reclamation	17	
46	San Joaquin River Tributary Sediment Transport and Geomorphology Study	Scott Wright, USGS	22	
47	USGS Sediment Monitoring	Al Caldwell, USGS	21	
48	Two-Dimensional Temperature Monitoring of Gravel Pits in Reach 1A	Elaina Gordon, Reclamation	19	

Studies in the 2012 and 2013 Monitoring and Analysis Plans (contd.)

2012 MAP Appendix A Section	Study	Contact	2013 MAP Appendix A Section	Notes
49	Fish Passage Evaluation	Amanda Peisch-Derby, DWR	20	Report posted on www.restoresjr.net, September 2012.
50	Water Quality Monitoring	Chris Eacock, Reclamation		Data collection ongoing, no specific study associated with this monitoring. Included in the monitoring network (Appendix D).
51	Monitor and Manage Invasive Plants	Magill Weber, The Nature Conservancy		Ongoing, refer to 2012 MAP.
New Studies in 2013				
-	Influence of Paleochannels on Seepage	Katrina Harrison, Reclamation / Matt Burgess, USGS	4	
-	Trap and Haul of Adult Fall Run Chinook	Matt Bigelow, DFG / Don Portz, Reclamation / Zac Jackson, USFWS	6	
-	Juvenile Salmon Holding	Zac Jackson, USFWS / Paul Adelizi, DFG / Matt Bigelow, DFG	7	
-	Levee Geotechnical Exploration	Dave Encinas, DWR	13	
-	Floodplain Quality	Elaina Gordon, Reclamation	16	
-	Continuous Surrogate Measurement of Bedload Sediment Transport using Hydrophone Installations on the San Joaquin River, California	Mathiew Marineau, USGS / Toby Minear, USGS / Scott Wright, USGS	18	
-	Thermal Conditions in Riverine Pools	Katrina Harrison, Reclamation	29	

Key:
 2D = two-dimensional
 DFG = California Department of Fish and Game
 DWR = California Department of Water Resources
 MAP = Monitoring and Analysis Plan
 MYTR = Mid-Year Technical Report
 Reclamation = U.S. Department of the Interior, Bureau of Reclamation
 USFWS = U.S. Fish and Wildlife Service
 USGS = U.S. Geological Survey