



Date: February 12, 2016
To: Principal Investigators with Interest in Advancing Studies related to the San Joaquin River Restoration Program
From: MAP Oversight Panel
Subject: 2017 MAP Process Schedule and Objectives

The San Joaquin River Restoration Program (SJRRP or Program) is a multi-agency collaboration to restore and maintain naturally reproducing and self-sustaining populations of salmon and other fish in the San Joaquin River below Friant Dam, while reducing or avoiding impacts to the Friant Division long-term Contractors. The Program is legally mandated by the Stipulation of Settlement in *NRDC vs. Rodgers* (Settlement), which includes required physical projects and milestones. Due to extenuating circumstances, the schedule outlined in the Settlement was exceeded, and the Program developed a revised schedule, outlined in the SJRRP 2015 Final Framework for Implementation (Framework). The Framework, as well as additional background information on the SJRRP, is available on the Program website, www.restoresjr.net.

The Monitoring and Analysis Plan (MAP) was developed to fund scientific investigations that could inform Program decisions, and is the primary means by which the Program directs scientific studies, funds investigations, and integrates scientific knowledge into management decisions. Studies funded by the MAP may include a wide variety of investigations pertinent to the SJRRP, informing biological requirements, physical processes, flow releases from Friant Dam, or specific SJRRP project questions. To narrow the call for proposals in a specific year's MAP, the MAP Oversight Panel (Panel) has developed this memorandum, which includes a list of priorities the Panel has identified as timely for the Program. While these priorities have been highlighted by the Panel, the Program also welcomes additional suggestions from investigators that they, as experts in their field, may identify as priorities for the Program.

This memorandum describes the process and objectives for the San Joaquin River Restoration Program 2017 Monitoring and Analysis Plan. This includes the schedule for 2017 MAP activities, the 2017 MAP budget, and the MAP Oversight Panel's priorities for 2017 studies.

Schedule

The Monitoring and Analysis Plan schedule outlines the process of proposal submittal, review by the MAP Panel, and proposal acceptance. Once proposals have been accepted as MAP studies, additional schedule information will be sent out regarding the submittal of data and deliverables. The objectives of this schedule are to make funding decisions earlier in the year to allow for faster turn-around of funds, to maintain communication between the Principal Investigators (PIs) and the MAP Panel, and to overall increase the efficiency of the MAP process.

Similar to the 2016 MAP proposal process, investigators will be asked to first complete an initial pre-proposal outlining the concept of their study. The PIs of those pre-proposals that are selected will be

asked to continue the development of their proposed study into a full proposal. Funding decisions will be finalized in July of 2016 and disbursement of funds will begin in Fiscal Year 2017 (see Table 1 for General Study Schedule).

Attached to this memorandum is a pre-proposal template, to be submitted by interested PIs by **March 18, 2016**. The pre-proposal serves as a management-level summary of each MAP study, and will provide a concise overview of the study description and requirements. Pre-proposal submissions should not exceed three pages in length. The purpose of these pre-proposals is to allow the Panel to provide feedback on preliminary study ideas before significant time has gone into developing the details of a full study proposal.

The Panel would like to work with the PIs to understand the most important aspects of each study and why certain data are needed. To facilitate this discussion, investigators submitting study proposals for the FY 2017 MAP may be asked to present their proposals to the Panel. The majority of these presentations will be done over teleconference, and will consist of ten minute presentations followed by time for the Panel to ask questions. Livemeeting will be available for PIs to present powerpoint presentations or other visual information through screen sharing meeting software. Presentations will take place from **1:00 PM to 4:00 PM PST on April 15 and April 20, 2015**. Please reserve time in your schedule on one of these days if you plan to submit a proposal for the 2017 MAP. The Panel will then provide feedback on these presentations before the Full Study Plans are due. Table 2 shows the current schedule of MAP activities for this year.

MAP Budget

As the SJRRP progresses, the amount of funding available for MAP studies in a given year will change depending on Congressional appropriations and other Program activities. The Panel will be able to estimate this amount following the release of the President's Budget, and will relay this information to the PIs before the proposal submission process each year. \$750,000 in federal funds is available to fund MAP related activities for FY 2017. Monitoring activities that are legally mandated by the Settlement, the San Joaquin River Restoration Settlement Act (*Public Law 111-11*), and other SJRRP permits or mitigation requirements are not included in this amount, and are listed separately by year in the Program budget (see the 2015 SJRRP Framework for Implementation). The Panel may still review these activities for consistency with requirements, fiscal efficiency, or other factors and may provide feedback to the investigators.

SJRRP will entertain multi-year proposals. Each fiscal year (FY 2017 runs from October 2016 through September 2017) should have a separate budget estimate. Each budget should include an amount that is requested to be funded from the MAP as well an estimate of matching funds (if any). There is no minimum or maximum annual limit in funding that can be requested.

MAP Oversight Panel Objectives for Upcoming Studies

The MAP Panel reviewed the Program activities and management decisions that must take place in the next five years, per the Framework for Implementation schedule and the completed 2014 Technical Reports, and prioritized scientific needs to inform these upcoming activities and decisions. The Panel recognizes that items beyond those identified may also be urgent for the Program, and will rely on the PIs as experts in their fields to convey this information in their presentations to the Panel in April. The Panel has identified the following priorities and questions for the 2017 MAP. These items are not listed

in a specific order, and are all identified as priorities. Where relevant, past MAP studies addressing each objective are listed, as well as the MAP Oversight Panel point of contact should you have any questions about formulating your pre-proposal.

Fisheries Reintroduction — The Panel requests proposals focused on overcoming and elucidating limiting factors for establishing salmon populations in the Restoration Area. Examples include investigations to support ongoing efforts evaluating the adequacy of spawning, adult holding, or juvenile rearing habitat, and studies focused on improving juvenile migration success. Additionally, the Panel requests proposals to monitor the success of recent fishery reintroduction efforts within the Restoration Area. [Previous MAP Study #: 6, 10, 52, 54, 16-3, 16-10, Contact: John Netto, john_netto@fws.gov]

Fish Benefits from Floodplain Rearing — In advance of channel improvements in Reach 4B, what geomorphic design attributes could be employed to enhance Chinook salmon rearing? How does tule vegetation in channel margins and on floodplains compare in fish benefits to woody riparian vegetation? [Previous MAP Study #: 13, 35, Contact: Katrina Harrison, kharrison@usbr.gov]

Predation Mitigation — Predation will likely be a significant burden on fish restoration in the Program area. SJRRP is interested in technology or methods for evaluating predation impacts and low cost techniques or pilot programs to address predator population mitigation. [Previous MAP Study #: 9,10,11,34, Contact: Tom Johnson, trjllc@zetabroadband.com]

Conjunctive Use of Floodplains — Relevant to Reach 2B and 4B improvements, what opportunities exist for conjunctive use of floodplains with agricultural fields or waterfowl ponds? Are there any important results from other floodplain projects (e.g. Yolo bypass) that are relevant to the San Joaquin River? What are the best management practices for such floodplains? [Previous MAP Study #: none, Contact: Katrina Harrison, kharrison@usbr.gov]

Tools for Forecasting Water Temperatures — With the need to ensure that river water temperatures are kept below critical thresholds for various salmon life stages, a more flexible management tool is desired to predict water temperatures. While this topic has been investigated in piecemeal, SJRRP is in need of a tool to rapidly predict water temperature as well as evaluate restoration options through climate, vegetation, and flow scenarios. [Previous MAP Study #: 5, 20, 29, 31, 16-10, Contact: Tom Johnson, trjllc@zetabroadband.com]

Anticipated Hydrologic Changes due to Climate Change — SJRRP is interested in projected changes in upper San Joaquin hydrology expected over the next 30 years. Need to understand changes in runoff seasonality, flooding events, water temperatures, air temperatures, and interannual runoff variation. This objective may require a preliminary study plan or other initial step. [Previous MAP Study #: none, Contact: Tom Johnson, trjllc@zetabroadband.com]

Improvement in Runoff Forecasting Accuracy — Restoration Flows are based on early season runoff forecasts which can have significant uncertainty. A grid-based approach to quantifying snowpack is sought, informed by remote sensing, and able to integrate changes in vegetation cover and climate. [Previous MAP Study #: none, Contact: Chad Moore, cmoore@usbr.gov]

PIs are strongly encouraged to read and reference actions and decisions articulated in the SJRRP 2015 Final Implementation Framework (<http://www.restoresjr.net/documentsreports/program-documents/>).

Addressing how the results of the proposed study will benefit the Program will be a critical evaluation factor. Proposals should also indicate which geographic area will be the focus of study (e.g. Reach 2, upper watershed, etc). PIs are encouraged to review other program documents at www.restoresjr.net.

Types of Studies

The SJRRP MAP is interested in a variety of study types. PIs are encouraged to explore all options and present the panel with their best recommended approach. Studies may consist of one or more of the following:

- Investigation of Hypothesis / Inferential Study
- Literature Review / Case Study Review
- Pilot Study / Experimentation
- Field Studies / Monitoring
- Development of Best Management Practices
- Long-term Monitoring Plan
- Modeling Development
- Study Plan (if it requires a large long-term integrated effort)
- Citizen Science Study (inclusion of general public in data collection or analysis)

Eligible Groups

MAP study proposals may be submitted by the following groups:

- Scientists in Public Agencies
- Academic Institutions
- Non-Governmental Organizations

If you are working with the SJRRP for the first time, you will likely be paired with experienced investigators if your proposal is selected. Private consultants interested in participating in the SJRRP MAP should contact the Panel to register your interest.

Questions

Any questions, concerns, or clarifications on the 2017 MAP process should be directed to Chad Moore (cmoore@usbr.gov; 916-978-5467) or Emily Thomas (ethomas@usbr.gov; 916-978-5457). Pre-proposal submissions should be sent to Emily Thomas (ethomas@usbr.gov).

Table 1. General Study Schedules for Single and Multi-year Proposals

Stage	One-Year Proposal (FY 2017 start)	Two-Year Proposal (FY 2017 start)¹
Pre-Proposal Submission	March 2016	March 2016
Full proposal Submission	June 2016	June 2016
Confirmation of Funding	July 2016	July 2016
Distribution of Funds — Interagency Agreements	November 2016 – February 2017	November 2016 – February 2017
Distribution of Funds — Financial Assistance to Non-Government Organizations and Academic Institutions	February 2017 – April 2017	February 2017 – April 2017
Submission of Draft Study Report	September 2017	September 2018
Submission of Final Study Report	November 2017	November 2018

¹ *Proposals longer than two years will be considered*

Table 2. 2016 MAP Process Schedule

Month (2016)	Date	
January	5	Panel Meeting #1 – FY 2017 MAP objectives, organization, and schedule
	11	Panel sends 2017 MAP schedule to PIs
February	9	Panel Meeting #2 – Review pre-proposal priorities
	12	Panel sends memo to PIs with FY 2017 study objectives, MAP process schedule, budget guidance, and request for initial pre-proposals
March	18	Pre-proposals for FY 2017 MAP due from PIs
April		Panel Meeting #3 – Discuss pre-proposals
		Science Meeting Registration and Abstract submission opens
	15	Panel Meeting #4 – PIs present pre-proposals to Panel, followed by Panel discussion
	20	Panel Meeting #5 – PIs present pre-proposals to Panel, followed by Panel discussion
	22	Panel Meeting #6 – Discuss presentations and pre-proposals
	29	Panel provides feedback on initial FY 2017 proposals by April 29
June		Science Meeting Abstracts due
	24	Draft Full FY 2017 Proposals from PIs due, with peer review
		Panel Meeting #7 – Discuss / approve Draft 2017 MAP
July		Science Meeting schedule posted / PIs notified of abstract acceptance
	18	Draft FY 2017 MAP
August		SJRRP Science Meeting
	17	Draft FY 2017 MAP Comments Due
		Panel Meeting #8 – Discuss / approve 2017 MAP
September	21	Settling Parties Review Period
	25	Final FY 2017 MAP Posted
	30	Draft FY 2015 study reports due
October	3	Begin synthesis of knowledge process for FY 2015 studies
	14	Comments returned on Draft FY 2015 study reports
	28	Final FY 2015 MAP Synthesis Report
November	4	Draft FY 2016 study reports due
	18	Comments returned on Draft FY 2016 study reports
December	2	Final FY 2016 MAP Synthesis Report