

Reach 4B, Eastside Bypass, and Mariposa Bypass Low Flow Channel and Structural Improvements Project

Public Scoping Report

SAN JOAQUIN RIVER
RESTORATION PROGRAM

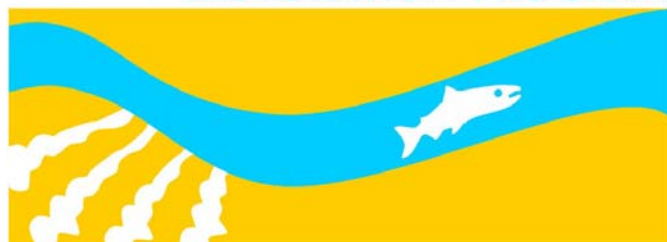


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List of Abbreviations and Acronyms

CalEPA	California Environmental Protection Agency
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
DFG	California Department of Fish and Game
DM	Department Manual
DWR	California Department of Water Resources
EIS/R	Environmental Impact Statement/Environmental Impact Report
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FWUA	Friant Water Users Authority
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOI	Notice of Intent
NOP	Notice of Preparation
NO _x	oxides of nitrogens
NRDC	Natural Resources Defense Council
PM ₁₀	particulate matter of 10 microns or less in size
RA	Restoration Administrator
Reach 4B Project	Reach 4B, Eastside Bypass, and Mariposa Bypass Low Flow Channel and Structural Improvements Project
Reclamation	U.S. Department of the Interior, Bureau of Reclamation
ROG	reactive organic gasses
Settlement	Stipulation of Settlement in <i>NRDC et al. v. Kirk Rodgers et al.</i>
SJRRP	San Joaquin River Restoration Program
U.S.C.	United States Code
USFWS	United States Fish and Wildlife Service

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1.0 Introduction

This report documents the scoping activities that occurred for the San Joaquin River Restoration Program (SJRRP) Reach 4B, Eastside Bypass, and Mariposa Bypass Low Flow Channel and Structural Improvements Project (Reach 4B Project). The U.S. Department of the Interior, Bureau of Reclamation (Reclamation), the National Environmental Policy Act (NEPA) lead agency, and the California Department of Water Resources (DWR), the California Environmental Quality Act (CEQA) lead agency, are planning to prepare an Environmental Impact Statement/Environmental Impact Report (EIS/R) to address low flow channel and structural improvements along Reach 4B of the San Joaquin River and in the Eastside and Mariposa Bypasses, consistent with the stipulations in the San Joaquin River Settlement (Settlement) in *Natural Resources Defense Council, et al., v. Kirk Rodgers, et al.* Accordingly, these agencies held public scoping meetings to obtain public and stakeholder input and to comply with environmental regulations.

1.1 Scoping Purpose and Process

Scoping is generally defined as “early public consultation,” and is one of the first steps of the NEPA and CEQA environmental review process (see Figure 1). The purpose of scoping is to involve the public, stakeholders, Indian tribes, and other interested agencies early on in the environmental compliance process to help determine the range of alternatives, the environmental effects, and the mitigation measures to be considered in an environmental document. The results of scoping help to guide an agency’s environmental review of a project.

As part of the scoping process, agencies often conduct public meetings. Scoping is not limited to public meetings; however, public meetings allow interested persons to listen to information about a proposed project or action and express their concerns and viewpoints to the implementing agencies. During scoping meetings, the lead agency generally outlines the proposed project, defines the area of analysis, proposes issues to be addressed in the environmental compliance document, and solicits public comments. Agencies also establish a scoping comment period to accept scoping comments submitted in writing. Scoping comments are considered by the agencies during the formulation of alternatives and are used to determine the scope of the environmental issues to be addressed in the environmental document.



Figure 1. NEPA and CEQA Process

1.2 Applicable Regulations

Scoping is required by Federal and State regulations. The scoping requirements for NEPA and CEQA are outlined below.

1.2.1 National Environmental Policy Act

NEPA regulations (40 CFR 1501.7) require scoping to determine the scope of the issues to be addressed in the environmental review and to identify significant issues. According to NEPA, scoping should occur early on in the environmental review process and should involve the participation of the affected parties.

The lead Federal agency of the proposed action is required to:

1. “Invite the participation of affected Federal, State, and local agencies, any affected Indian tribe, the proponent of the action, and other interested persons (including those who might not be in accord with the action on environmental grounds);
2. Determine the scope and the significant issues to be analyzed in depth in the Environmental Impact Statement;
3. Identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review narrowing the discussion of these issues in the statement to a brief presentation of why they will not have a significant effect on the human environment or providing a reference to their coverage elsewhere;
4. Allocate assignments for preparation of the Environmental Impact Statement among the lead and cooperating agencies, with the lead agency retaining responsibility for the Statement;
5. Indicate any public Environmental Assessments and other Environmental Impact Statements which are being or will be prepared that are related to but are not part of the scope of the Impact Statement under consideration;
6. Identify other environmental review and consultation requirements so the lead and cooperating agencies may prepare other required analyses and studies concurrently with, and integrated with, the Environmental Impact Statement; and
7. Indicate the relationship between the timing of the preparation of environmental analyses and the agency’s tentative planning and decision making schedule” (40 CFR 1501.7).

Public involvement activities are required by Council on Environmental Quality (CEQ) regulations that state, “Agencies shall: Make diligent efforts to involve the public in preparing and implementing their NEPA procedures” (40 CFR 1506.6(a)). Public scoping meetings help to satisfy this requirement.

CEQ regulations (40 CFR 1508.22, 516 DM 2.3D) require the implementing agency to notify the public that it is preparing an EIS for a project under consideration. Reclamation published a Notice of Intent (NOI) in the Federal Register on Wednesday September 9, 2009. Attachment A of this scoping report includes a copy of the NOI.

1.2.2 California Environmental Quality Act

CEQA encourages early public consultation with affected parties. This early consultation can often identify and help to resolve potential problems before they turn into more serious problems further on in the process. CEQA describes two other benefits for early consultation:

- a) “Scoping has been helpful to agencies in identifying the range of actions, alternatives, mitigation measures, and significant impacts to be analyzed in depth

in an Environmental Impact Report and in eliminating from detailed study issues found not to be important.

- b) Scoping has been found to be an effective way to bring together and resolve the concerns of affected Federal, State, and local agencies, the proponent of the action, and other interested persons including those who might not be in accord with the action on environmental grounds” (CEQA Guidelines Section 15083).

According to Section 15082 of the CEQA Guidelines, a State lead agency must conduct at least one scoping meeting for a project of statewide, regional, or area-wide significance. A scoping meeting held pursuant to NEPA in the city or county in which the project is located satisfies this CEQA requirement as long as notification of the scoping meetings has been carried out according to CEQA requirements.

Parallel to the process of the NOI for NEPA, CEQA requires public notification of the initiation of an EIR through a Notice of Preparation (NOP) (CEQA Guidelines Section 15082) that is submitted to the State Clearinghouse through the Office of Planning and Research. DWR published a NOP for the project on Wednesday September 9, 2009. A copy of the NOP can be found in Attachment A of this scoping report.

2.0 Project Description

This section presents a brief description of the overall SJRRP and the Reach 4B Project.

2.1 San Joaquin River Restoration Program

In 1988, a coalition of environmental groups led by the Natural Resources Defense Council (NRDC) filed a lawsuit challenging the renewal of the long-term water service contracts between the United States and the Central Valley Project Friant Division Contractors. After more than 18 years of litigation known as *Natural Resources Defense Council, et al., v. Kirk Rodgers, et al.*, the NRDC, Friant Water Users Authority (FWUA), and the Departments of the Interior and Commerce (Settling Parties) reached agreement on the terms and conditions of the Settlement, which was subsequently approved by the Court on October 23, 2006.

The Settlement is based on two parallel Goals:

1. **The Restoration Goal** - To restore and maintain fish populations in “good condition” in the main stem of the San Joaquin River below Friant Dam to the confluence of the Merced River, including naturally reproducing and self-sustaining populations of salmon and other fish; and
2. **The Water Management Goal** - To reduce or avoid adverse water supply impacts to all of the Friant Division long-term Contractors that may result from the Interim Flows and Restoration Flows provided for in the Settlement.

The Settling Parties acknowledge that accomplishing the goals requires planning, implementation, and funding of certain activities, such as environmental review, design, and construction. With regard to the Restoration Goal, the Settlement calls for a combination of channel and structural improvements along the San Joaquin River below Friant Dam, releases of additional water from Friant Dam to the confluence of the Merced River, and the reintroduction of spring and/or fall-run Chinook salmon. Paragraph 4 of the Settlement states the Secretary of the Interior shall diligently pursue implementation of the Restoration Goal and the Water Management Goal as set forth in the Settlement. Additionally, the Settling Parties agreed that implementation of the Settlement would require participation of the State of California (State). Therefore, concurrent with the execution of the Settlement, the Settling Parties entered into a Memorandum of Understanding (MOU) with the State of California, by and through the California Natural Resources Agency, the Department of Water Resources (DWR), the Department of Fish and Game (DFG), and the California Environmental Protection Agency (CalEPA), regarding the State’s role in the implementation of the Settlement. The program established to implement the Settlement is the SJRRP and the “Implementing Agencies” responsible for the management of the SJRRP include Reclamation, United States Fish and Wildlife Service (USFWS), National Marine

Fisheries Service (NMFS), DWR, and DFG. The Federal Implementing Agencies (Reclamation, USFWS and NMFS) are authorized to implement the Settlement under the San Joaquin River Restoration Settlement Act (Act), Public Law 111-11.

2.2 Reach 4B, Eastside Bypass, and Mariposa Bypass Low Flow Channel and Structural Improvements Project

The Reach 4B Project is one component of the overall SJRRP. It includes the construction, operation, and maintenance of a low-flow channel in Reach 4B of the San Joaquin River and in the Eastside and Mariposa Bypasses and improvements to facilities in the Eastside and Mariposa Bypasses to allow for fish passage. The following are the applicable Settlement Paragraphs:

- Paragraph 11(a)(3) stipulates channel modifications to Reach 4B to ensure conveyance of at least 475 cubic feet per second (cfs).
- Paragraph 11(a)(4) stipulates modifications to the San Joaquin River headgates at the upstream end of Reach 4B to ensure fish passage and enable flow routing into Reach 4B, consistent with any determination made in Paragraph 11(b)(1) of the Settlement¹.
- Paragraph 11(a)(5) stipulates modifications to the Sand Slough Control Structure to ensure fish passage.
- Paragraph 11(a)(8) stipulates modifications to structures in the Eastside and Mariposa bypass channels to provide anadromous fish passage on an interim basis until a final flow routing is selected and completed.
- Paragraph 11(a)(9) stipulates modifications in the Eastside and Mariposa bypass channels to establish a suitable low-flow channel, if the Secretary in consultation with the Restoration Administrator (RA), determines that such modifications are necessary to support anadromous fish migration through these channels.

Because the functions of these channels are related, the design, environmental compliance, and construction are being addressed as one project. The Settlement stipulates channel modifications be made in Reach 4B to ensure conveyance of at least 475 cfs. Based on preliminary information, these modifications may consist of removing in-channel vegetation, removing excess silt and sediment, and improving road crossings, and may or may not necessitate modifying the existing levee system. Modifications to the San Joaquin River headgate and the Sand Slough Control Structure could include modifications to the existing structures or replacement of the existing structures with new structures. The Settlement also stipulates modifications to structures in the Eastside and Mariposa bypasses to provide for fish passage and modifications to the Eastside and Mariposa

¹ Paragraph 11(b)(1) of the Settlement refers to the decision of where the high restoration flows (4,500 cfs) of Phase 2 will be routed (the Eastside Bypass or the San Joaquin River channel). The high flow decision will be completed as part of a separate study and is not part of this Reach 4B Project.

bypasses to establish a low flow channel. Both the Mariposa Bypass Bifurcation Structure at the head of the Mariposa Bypass and the Mariposa Bypass Drop Structure at the downstream end of the Mariposa Bypass may need to be modified to provide for fish passage under a range of flows (both low and high flows). Modifications could include modifications to the existing structures, construction of fish ladders, or replacement of the existing structures with new structures. In addition, modifications to the low-flow channel may be needed to allow for fish passage under low flows in the Eastside and Mariposa bypasses.

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3.0 Scoping Meetings

Reclamation and DWR held two public scoping meetings in September of 2009, regarding preparation of an EIS/R for the Reach 4B Project. The first meeting was held in Los Banos, California, on Wednesday September 23, 2009, from 6 to 8 p.m. The second meeting took place in Merced, California, on Thursday, September 24, 2009 from 6 to 8 p.m.

Approximately 40 people attended the two meetings, including members of the public, landowners, elected officials, and representatives from public agencies.

3.1 Scoping Meeting Notification

Reclamation published an NOI in the Federal Register (Vol. 74, No. 173, Wednesday September 9, 2009), as required by NEPA. DWR published an NOP on the same day with the State Clearinghouse (State Clearinghouse #2009091027), according to CEQA requirements. Both notices contained information on the location, date, and time of the scoping meetings.

To publicize the meetings, the lead agencies distributed notices (including a copy of the NOI and NOP) to approximately 820 interested parties in the project mailing list database, including Federal, State, and local agencies, elected officials, irrigation districts, county planning departments, landowners, academics, and other individuals that have shown an interest in the Reach 4B Project. Certified mailing was sent out to specific State and local agencies to meet CEQA requirements.

Print ads displaying the time, date, and location of the scoping meetings were published in local area newspapers including the main sections of the Visalia Times-Delta (September 9, 2009), the Firebaugh-Mendota Journal (September 9, 2009), the Merced Sun-Star (September 9, 2009) and the Los Banos Enterprise (September 11, 2009).

A press release was distributed by Reclamation on September 9, 2009, to Reclamation's media lists, other newspapers and media outlets in the Reach 4B area (both English- and Spanish-speaking), the Farm Bureau publications for the counties of Fresno, Merced, and Madera, the California Farm Bureau Federation's "Ag Alert" weekly newspaper, the California Farmer and the Capitol Press. Updated information on the scoping meetings was also posted to the SJRRP website (www.restoresjr.net/).

Attachment A of this scoping report contains a copy of the NOI, the NOP, the press release distributed by Reclamation, and the print ads published in the local area newspapers.

3.2 Staff

The following is a list of agency staff in attendance during the public scoping meetings.

**Table 1.
Agency Staff and Consultants at Scoping Meetings**

Staff	Affiliation	Staff	Affiliation
Jason Phillips	Reclamation	Paul Romero	DWR
Alicia Gasdick	Reclamation	John Battistoni	DFG
David Mooney	Reclamation	Pam Jones	Kearns and West
Michelle Banonis	Reclamation	Benjamin Gettleman	Kearns and West
Margaret Gidding	Reclamation	Carlos Quiroz	Circle Point
Leslie Mirise	NMFS	Ruben Zubia	CDM
Kevin J. Faulkenberry	DWR	Carrie Buckman	CDM
Karen Dulik	DWR	Stacy Porter	CDM

3.3 Scoping Meeting Format and Content

Meeting participants were greeted at the door and asked to sign in. All names were entered into a database for the exclusive purpose of keeping participants up-to-date on future activities, meetings, and project information. Meeting materials available to participants included:

- Agenda;
- PowerPoint presentation;
- Project press release;
- Spanish translation of the project press release;
- NOI and NOP;
- SJRRP Update Newsletter;
- Speaker card; and
- Comment card with an area map.

Both public meetings began with a PowerPoint presentation by Reclamation and DWR. The presentation explained the purpose of the meeting, provided a history of the Settlement, presented an overview of the key components of the Reach 4B Project, and described the public scoping process. Following the presentation, participants were able to talk with SJRRP Staff at poster board stations for the “open house” portion of the meeting. Three stations with poster boards were set up and included:

1. Project Process and Timeline;
2. Project Information; and
3. Comments and Public Involvement.

3.0 Scoping Meetings

A staff person was assigned to each poster board station and was available to talk with the public regarding each respective topic. A Spanish-speaking interpreter was present at both meetings. Copies of the meeting handouts, PowerPoint presentation, and station displays are provided in Attachment B.

A public comment session was held after the open house portion of the meeting. Meeting participants were invited to provide verbal comments. A court reporter attended both meetings to record all verbal comments. Six verbal comments were made at the Los Banos scoping meeting, and one verbal comment was made at the Merced scoping meeting. Verbal comments from the scoping meetings are summarized in Section 4.0 of this report. Copies of the meeting transcripts are available in Attachment C.

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4.0 Scoping Comments

Verbal and written comments were accepted by Reclamation and DWR during both scoping meetings. Additionally, the agencies accepted written comments through mail, e-mail, and fax, throughout the scoping period of September 9, 2009 through October 9, 2009. All scoping comments can be found in Attachment C (including meeting transcripts and all written comments received at the scoping meetings and during the comment period). A total of nine written comments and seven verbal comments were received during the scoping period.

**Table 2.
Scoping Meeting Comments**

Name	Affiliation
WRITTEN COMMENTS	
Federal	
Gregor Blackburn	Federal Emergency Management Agency
Paul Maniccia	Army Corps of Engineers
State	
Katy Sanchez	Native American Heritage Commission
Local	
David Warner	San Joaquin Valley Air Pollution Control District
Robert E. Smith	Merced County Department of Public Works Administration Division
Individual	
James L. Nickel	Private Individual
Chase Hurley	San Luis Canal Company
Norman Cedarquist	Private Individual
Jacqueline Elaine Lawrence	Private Individual
VERBAL COMMENTS (TRANSCRIPTS)	
Cannon Michael	Private Individual
Doug Federighi	Private Individual
Chase Hurley	San Luis Canal Company
Norman Cedarquist	Private Individual
Jacqueline Lawrence	Private Individual
Ernie Dosio	Private Individual
Carl Jensen	Madera Irrigation District

4.1 Comment Summary

This section presents a summary of the comments received during the scoping process. If a similar comment was received from multiple participants, the comments were combined and reported as one comment. The full contents of the comments are included in Attachment C.

4.1.1 Purpose and Need/Project Objectives Comments

- Include the improvement of road crossings in the project objectives.

4.1.2 Project Description and Alternatives Comments

- Restoring the San Joaquin River to its original channel is the best option.
- Clean out the overgrown vegetation in the channel and on the levees.
- Where needed, create a low water channel, but restore the main San Joaquin River channel to its 20,000 cfs capacity.
- The current capacity of Reach 4B is likely zero. This should be considered as we move through the process.
- The idea of constructing Reach 4B to carry 475 cfs initially and then, if practical, construct it to carry 4,500 cfs is neither effective nor efficient. The agencies should decide up front if the channel will receive 475 cfs or 4,500 cfs. Building it twice is not cost effective and is an added disruption to the adjoining landowners and their irrigation/drainage facilities.
- Using the Eastside and Mariposa Bypasses to route flows should be considered as an alternative to using the 4B channel.
- The possibility for a dual channel at 475, the Bypass with balance of flows, should be considered. Potential effects of a dual versus a single channel on the aforementioned Bypass and other similar facilities should be evaluated.
- Wetland units could be set up to accept flood flows along Reach 4B to avoid the flooding of adjacent farmlands in periods of high flows.
- Property rights must be respected and the method of purchase identified.

4.1.3 Potential Environmental Effects Comments

- The project should include alternatives that avoid impacts to wetlands and other waters of the United States. If impacts cannot be avoided, they must be fully mitigated.
- The SJRRP project may be subject to 33 CFR 208.10, for encroachment upon a Federal flood control feature, or 33 U.S.C 408, for alteration of a Federal project.
- Any increases in channel flows that adversely affect existing County roadways must be addressed as part of this project.
- Scoping did not address third party impacts and how these impacts will be mitigated. The requirement to mitigate third party impacts is addressed in detail in the legislation, but it was not mentioned during the presentation, at the scoping

events, nor at other similar events. All third party impacts are to be fully mitigated.

- The land use analysis must consider impacts to existing homes, shops, offices, etc.
- The evaluation should consider operations of San Luis Canal Company, Turner Island Water District and Lone Tree Mutual Water Company. Specific concerns include:
 - San Luis Canal Company infrastructure (delivery ditches and drains).
 - San Luis Canal Company water rights on newly purchased land.
 - Operation of the Reach 4B and Sand Slough Diversion Structure.
- Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources. In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
- Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.
- Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan.
- Interim Flow water cannot enter the Reach 4B channel until work is completed as provided in the legislation under Section 10004(h)(1):
 - Seepage Monitoring Program.
 - Mitigation Measures.
 - Flow Monitoring Program.
- The San Luis Canal Company has 13 irrigation delivery facilities and drainage facilities along the Reach 4B channel. Surrounding land has water rights to the Canal Company. The water rights must be addressed on that land either through purchase of the land or prior to the purchase of the land.
- Returning flows to Reach 4B could potentially benefit wetland units by increasing groundwater levels and allowing for the use of artesian wells that are not currently operational.
- Geotechnical work in and around the wetland units should be scheduled to avoid nesting season. The period of September through January should be avoided to avoid bird disturbance.
- Restoration Flows may affect farmers with diversion permits on the Mariposa Bypass.

4.1.4 Groundwater Comments

- Additional water in the river channel or the Eastside and Mariposa Bypasses will create elevated shallow groundwater levels that will adversely affect farms in the surrounding area. Adjoining landowners are very concerned about this issue.

- The current approach to the groundwater seepage analysis is attempting to determine what levels of groundwater were acceptable to various crops, with the idea that crops with shallow roots could survive with a higher water table than a deep rooted crop. If this guideline is used, then once the water table is allowed to rise for a shallow rooted crop, deep rooted crops could not be grown on the property in the future. This whole idea needs to be discarded. The water table should be held to its current non-flow level and not be permitted to rise. Aside from damage to the crop roots, even if the water table is permitted to rise to a level below the crop roots, the rise in water table level will negatively affect the needed leaching of salts through the soil.
- Agency staff indicated that they plan to be very vigilant in watching for seepage impacts and would reduce flows if seepage impacts were observed. Waiting until they occur is too late. Damage will occur. The analysis must anticipate the adverse impacts and make sure that they do not occur.
- Adjacent landowners must retain the right to pump groundwater.
- Groundwater monitoring wells must be installed prior to any water entering the system. Some landowners are willing to move forward with this process immediately to gain better background data prior to flows.
- Mitigation measures must identify how flows would be removed from the system in response to seepage problems.

4.1.5 Flood Control Comments

- All buildings constructed within a riverine floodplain must be elevated so that the lowest floor is at or above the Base Flood Elevation level in accordance with the effective Flood Insurance Rate Map (FIRM).
- If the area of construction is within a Regulatory Floodway as delineated on the FIRM, any development (man-made change to improved or unimproved real estate, including but not limited to buildings, other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, and storage of equipment or materials) must not increase base flood elevation levels.
- A hydrologic and hydraulic analysis must be performed prior to the start of development, and must demonstrate that the development would not cause any rise in base flood levels. No rise is permitted within regulatory floodways.
- Any development that changes existing Special Flood Hazard Areas should submit the appropriate hydrologic and hydraulic data to the Federal Emergency Management Agency (FEMA) for a FIRM revision.
- Project operations must define the response plan if there are flow issues within the Reach 4B channel. The plan would need to describe how to quickly divert water during an emergency, and where the water would go. If the water would go to the Levee District, the document must analyze the issues associated with that option.
- Construction of a new dam in Panoche could help to alleviate flooding in Mendota and Firebaugh.

4.1.6 Air Quality Comments

- Air quality impacts should include existing air quality conditions, existing and post-project emissions, short-term construction emissions, long-term operational and area wide emissions, emissions from permitted (stationary sources) and non-permitted (mobile sources).
- The project should be considered to have significant adverse impacts on air quality if emissions exceed: 10 tons per year of oxides of nitrogens (NO_x), 10 tons per year of reactive organic gasses (ROG), or 15 tons per year of particulate matter of 10 microns or less in size (PM₁₀).
- The environmental analysis should include a discussion of whether the project would result in a cumulatively considerable net increase of any criteria pollutant or precursor for which the San Joaquin Valley Air Basin is in non-attainment.
- The analysis should include a discussion on greenhouse gas emissions generated by the project and the effect they will have, if any, on global climate change.
- If the project is located near residential areas or sensitive receptors, the project should be evaluated to determine the health impact of Toxic Air Contaminants to the nearby receptors.
- The analysis should include a discussion of whether the project would create nuisance odors, the methodology, model assumptions, inputs and results used in characterizing the impact of the project on air quality, a discussion of all existing San Joaquin Valley Air Pollution Control District regulations that apply to the project, and a discussion of all feasible measures that will reduce air quality impacts.
- Construction exhaust-related impacts should be reduced through use of construction equipment powered by engines meeting, at a minimum, Tier II emission standards, as set forth in §2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations.
- The mitigation measures should incorporate, as a condition of project approval, a requirement that off-road construction equipment used on site achieve fleet average emissions equal to or less than the Tier II emissions standard of 4.8 NO_x gallons per horsepower hour. This can be achieved through any combination of uncontrolled engines and engines complying with Tier II and above engine standards.

4.1.7 Schedule Comments

- The timeline for this river restoration project is impractical. Restoring the San Joaquin River to a historic flow rate and reintroducing salmon will require a much larger time period than is set forth. The third parties have and will continue to cooperate with the agencies in this restoration process; however, they wish for equal cooperation and a reanalysis of the proposed restoration timeline in return.
- The sequence of the milestones you presented does not work. You indicate that you plan to re-introduce salmon in 2012, one year before the first phase channel and habitat improvements are completed. That means there will be salmon in the river before fish screens are installed, which is unacceptable.

- The agencies indicate that in 2014 they plan to initiate full Restoration Flows, which is two years before the second phase channel and habitat improvements are completed.

4.1.8 Interim Flows or Program-Related Issues Comments

- Conveyance of Restoration Flows across Gravelly Ford could potentially generate adverse groundwater effects south of the San Joaquin River along the Friant Kern Canal.
- To help restore Salmon run in the river at a lower cost:
 1. Construct a new channel along the southerly bank of the river from the upper end of the Gravelly Ford sand area to downstream below Yuba Avenue and on to the Mendota Pool. This channel should be a two stage waterway, one with a capacity of 100 to 500 cfs and the other at up to 5,000 cfs.
 2. At the Mendota Dam, construct a 3 or 4 step fish ladder in one of the bays of the outlet structure. This will provide a means for salmon traveling up and downstream.
 3. At the Dos Palos Sack Dam, Construct a 12 to 16 foot wide weir adjacent to the Dos Palos outlet to provide downstream flow.
 4. From the Sack Dam to Highway 140 east of Gustine, the channel may need to be modified to restrict the width and provide sufficient depth to maintain water temperature for fish health.
- The agencies indicate that Interim Flows will begin in the 4B Reach channel in 2009. However, prior to commencing any Interim Flows in the 4B Reach channel, Reclamation must perform the necessary channel improvements and fully mitigate the impacts of the project.