San Joaquin River Restoration Program
Seepage & Conveyance Technical Feedback Meeting
Tuesday, February 22, 2011
San Luis Canal Company
11704 Henry Miller Avenue, Dos Palos

Meeting Notes

Attendees:

Shelly Abajian	US Senator Diane Feinstein
Steve Chedester	Exchange Contractors
Shawn Coburn	Landowner
Ron Cunha	Nickel Family Farms
DeeDee D'Adamo	Office of Representative Dennis Cardoza
Sarge Green	California Water Institute – RMC coordinator
Katrina Harrison	Reclamation
Randy Houk	Columbia Canal Company
Shay Humphrey	Circlepoint
Chase Hurley	San Luis Canal Company
Stephen Lee	Reclamation
Bill Luce	Friant Water Authority
Mari Martin	SJR Resource Management Coalition
Palmer McCoy	HMRD
David Mooney	Reclamation
Craig Moyle	MWH
Steve Phillips	USGS
Daniel Royer	Wolfsen
Chris White	Central California Irrigation District
Beth Wrege	NOAA/NMFS

Attendance via Conference Line:

Rod Meade	Restoration Administrator
Larry Harris	Wolfsen, Inc.

Introductions, Meeting Objectives and Agenda

Charles Gardiner, facilitator, opened the meeting with introductions and the group reviewed the agenda. The primary purpose of the meeting was to review and discuss the draft Seepage Management Plan (SMP), including monitoring plan, thresholds, operations and claims process.

Technical Feedback Group Purpose and Charter
Charles Gardiner provided a brief overview of the group's purpose, charter, timeline of milestones, and work done to-date for new meeting participants.

Action Item Review and Update
Katrina Harrison provided an update on the status of action items.

Action Item #10 - Add a priority well in Reach 3
After reviewing this action item, the group agreed that this action item should be changed. The group did not think a new well needed to be installed but that either well MW 10-74 or well MW 10-75 should be upgraded to a priority well.

Action Item #18 – Review and Consider information in the UC IPM report
After reviewing the information contained in the report, Reclamation incorporated information on root depth and appropriate buffer zones for almonds in the draft SMP.

Open action items

- Develop operating plan to incorporate impact of soil temperature on thresholds—This is still under development
- The raw data from the hand auger field work on the capillary fringe will be provided in early March
- The work plan for the additional tensiometer work to develop more data on capillary fringe is still in development
- Survey crews have completed survey work on CCID wells. Katrina will add the data to the Well Atlas when she receives it
- Provide Monty Schmitt and Chris White with the excel files that the profiles graphs are based on
- Add river mile station to river to link wells to locations
- Explore partnering on the cultural resources survey to expand the scope to go out beyond the levee to collect information that would help evaluate projects. Chris is discussing this with DWR, who is contracting the work as part of flood management planning.

Draft Seepage Monitoring & Management Plan
Dave Mooney and Katrina Harrison walked the group through each section of the draft SMP.

Seepage Effects

Dave Mooney provided an overview of the Seepage Impacts section of the plan and asked the group to provide comments. There were no comments from the group on this section of the plan.

Locations of Known Risks
Katrina Harrison provided an overview of the maps that were developed based on input from landowners and RMC. Reclamation requested that the meeting attendees provide comments on these maps and let them know if there are corrections that should be made.

> *Action Item - Conduct a full team follow-up site visit with Shawn Coburn in Reach 3 on the west side of the river.*

It was noted that Reclamation is working with the Settling Parties to determine if use of the bypass is consistent with the Settlement

There was a discussion about the projects that might be implemented to avoid seepage impacts and if they will be built to meet Interim Flows or the full Restoration Flows. If it is determined that a project needs to be built, Reclamation will build projects to accommodate the full Restoration Flows.

It was suggested that the title be changed from "Locations of Known Risks" to "Locations of Identified Risks" since these areas were identified by landowners.

There was a question regarding how Reclamation defines "historical seepage risk." Reclamation hasn't defined it, but rather they have left it for landowners and RMC to identify areas for monitoring and review.

Meeting attendees discussed their desire to start looking at the current Interim Flow conditions and look for the bottle necks that might require projects. It was suggested that landowners review and evaluate the plan based on the knowledge that they need to plan for 4500 cubic feet per second (cfs) below Mendota Dam.

Monitoring Program
Katrina Harrison provided an overview of the Monitoring Program section of the draft SMP. The group reviewed the map of the monitoring well network, which includes 111 wells with 25 of them perforated at more than 25 feet deep. The Well Atlas has also been updated to include the construction details for each well. Reclamation is still collecting the soil log data for measuring capillary rise. The team is working with Sarge Green on a plan for installing tensiometers and incorporating soil temperature into the thresholds methodology. Meeting attendees were interested in information regarding capillary rise and noted that as flows increase, the area where you see capillary rise is likely to widen and affect more area.

There was a discussion about alternate approaches to filling data gaps where landowners are not willing to have wells installed. The group noted that there is no alternative well location in the area where a landowner has refused a well upstream of the Sand Slough Control Structure. Reclamation asked the meeting attendees to review the map of priority well locations and

provide comment if they have other suggestions. The meeting attendees were generally satisfied with the priority wells; especially once the MW 10-74 or 75 is added. The group agreed that the monitoring network is much better than last year and the group can start focusing on setting the thresholds.

Action Item: Contact an alternate landowner for siting the proposed wells in the area of Sack Dam – Craig
Action Item: Work to install a well upstream of Sand Slough Control Structure – Craig

Seepage Conceptual Model
Dave Mooney gave an overview of the seepage conceptual model that is described in the plan. Meeting attendees suggested changing the "Acceptable Flows" to "Estimated Flow Limits" on the chart so that the language is consistent.

Thresholds
Dave, Katrina and Steve Phillips provided information on the different ways thresholds can be determined. The draft SMP includes three major ways for determining thresholds: (1) Agricultural Practices Method; (2) Historical Groundwater Method; and (3) Drainage.

Meeting attendees wanted to make sure that a 9 foot root zone was being applied to almonds.

There were many concerns regarding the ability to change the threshold based on the type of crop being planted. For example, if a landowner decided to switch from an annual crop to a tree crop, would the threshold be adjusted? Dave confirmed that the threshold would change if the crop changed. It was noted that using a threshold for row crop could damage land value if it would no longer be possible to farm a higher value permanent crop. Meeting attendees explained that with a lower threshold, Restoration Flows could push salts and other toxins into a potential deep root zone for a permanent crop, making the land unusable for a permanent crop in the future. While it is possible to push the toxins back down, this would be an added expense to the landowner. Meeting attendees suggested that when projects are built they should be built to for the full restoration flows and for the highest crop value. For Interim Flows thresholds will be conservative.

Action Item – Provide additional information on seepage management for potential changes in crops – Dave

<u>Historical Groundwater Method</u>
Steve Phillips from USGS explained this method.

There was a discussion about evaluating the data in other ways: using the 50^{th} percentile as the threshold or leaving out the flood flow events all together so those elevations are avoided, because the overall objective is to avoid high groundwater levels. Another option is to just look at the fall data because there is no flooding or irrigation in the fall.

There were concerns from meeting attendees that hydrologic conditions are not very similar from well to well so that assumption might not be accurate in specific locations. The group agreed that this method would have to be looked at on case-by-case basis. If one of the other methods made more sense to use, Reclamation should use that method.

A participant asked why Reclamation would use the groundwater method for wells where there isn't any historical information. Just use the agricultural method there. Dave Mooney noted that in some areas the agricultural method threshold would be below the historical groundwater level so it would be violated, regardless of flows in the river.

Landowners believe that using well 184 as a reference for nearby wells doesn't work because there is a drain near well 184.

There was a question regarding water-year type and if it would change the results of these analyses. Meeting attendees suggested there are only two conditions – water in the river and no water in the river. Because the water rights in the area are very secure, they are always irrigating, even during dry years.

Action Item: Look at other methods for the statistical analysis of historical groundwater – Steve Phillips and Chris White

Drainage Method

Dave Mooney described the drainage direction method for establishing thresholds.

Changes Based on Comments Received

Dave gave an overview of the changes that have been made to the draft SMP thresholds section based on comments from the group.

Some members of the group were concerned that the data used in Appendix B (Areas Potentially Vulnerable to Seepage Effects) are not up to date and should not be used. It was noted that in some cases, the information might be more useful than in others. Information will be updated as it becomes available.

It was suggested that Reclamation send out a letter to landowners letting them know thresholds are being established based on current cropping patterns and water levels might go up to a level higher than what has been seen historically. Landowners should be aware that they need to notify Reclamation if they intend to convert to a different crop type and they should be aware of any long-term change in land value if the water level rises. Meeting attendees agreed that all of the landowner should be informed at some point. District managers and the RMC offered to help facilitate the flow of information from Reclamation to the landowners.

Action Item – Describe the outreach plan for monitoring well thresholds – Dave, Margaret, and Craig

Operations & Triggers

Dave provided an overview of the how the operations and triggers will be used to assess whether flow releases or increases in flows can be implemented without causing impacts.

Response & Site Visits
The group reviewed the response process and what can be expected during a site visit. It was also suggested that Reclamation provide more information and clarity on the information gathered for each type of site visit prompted by a trigger – flow bench evaluation, daily flow evaluation, and hotline call.

There was discussion about the use of hand augured measurements because sometimes it takes a day or two to see the water level rise. In some cases, multi-day site visits might be needed. It was also noted that Reclamation does plan to do hand measurements to ensure accuracy and wants to do site visits to see exactly what the field conditions are so they can make the best decision about how to respond.

It was suggested that Reclamation make sure to keep in mind surrounding properties when re-evaluating thresholds because what works on one side of the river might not work on the other.

Projects Evaluation
Dave gave an overview of the types of projects that would be considered and the considerations that would be weighed before moving forward with a seepage avoidance project. There was a question about whether a private entity could build the project. A private entity could build the project, but if funding is coming from Reclamation, all of the federal regulations and permitting requirements will still apply.

There was discussion about how the project planning process might be expedited. One possibility is development of a programmatic environmental document to address NEPA, Endangered Species Act, and Clean Water Act compliance. It might be good to coordinate early with the Army Corps of Engineers.

It was suggested that Reclamation look at the most restrictive part of the river and identify projects and start getting the planning lined up in those areas so that once the SJRRP program document is certified the projects are ready to go. Reclamation should get buildable projects in these areas by the fall.

Others suggested that it would be beneficial to get the environmental community and elected officials involved to support getting these projects expedited.

The group discussed the possibility of producing a project handbook that would walk through the processes that would be required to get a seepage avoidance project implemented. The group agreed that it might be helpful but not if it means we put off discussing projects.

Action Item: Identify the Reclamation budget category and amounts of money available for seepage avoidance projects, including land acquisition and physical projects.

Claims Process
Dave Mooney described the current claims process. Right now the process is to register a concern through the seepage hotline for real-time concerns. Landowners may also call the

seepage hotline and initiate the project process to get structural or real-estate projects installed. If the landowner believes impacts have occurred, they would fill out a federal claims form (SF-95). Reclamation is exploring processes outside of the tort claims to reimburse past impacts, but this is the only option available right now.

Meeting attendees noted that they have requested that Reclamation develop an internal process for claims.

It was also noted that while it should be difficult to spend the public's money, it means that there are very restrictive rules that have to be followed. Federal laws exist to protect the way the public's funds get spent, despite how frustrating it may be in this instance.

Next Steps

Comments on the draft SMP are due March 4. Participants noted that it may be difficult to complete comments by March 4 due to other commitments.

Action Item: Consider extending the comment deadline for the draft SMP and notify participants – Dave

The next meeting is scheduled for March 23, and the purpose is to identify projects.

Compiled Action Items

New Action Items

- Conduct a full team follow-up site visit with Shawn Coburn in Reach 3 on the west side of the river – Stephen

- Follow-up with Harman and Sons owners to identify interest in adding wells to existing monitoring well for use as a transect in Reach 4A an alternate landowner for siting the proposed wells in the area of Sack Dam (Harman) – Craig

- Follow-up with 4W Ranch owners to identify interest in monitoring well installation – Craig

- Look at establishing a root zone buffer based on the deepest potential crop for the land – Dave

- Look at other methods for the statistical analysis of historical groundwater – Steve Phillips and Chris White

- Working with the district managers, develop a method to notify each landowner about the thresholds– Dave, Margaret, and Craig

- Identify the Reclamation budget category and amounts of money available for seepage avoidance projects, including land acquisition and physical projects.

- Consider extending the comment deadline for the draft SMP and notify participants – Dave

Open Action Items

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Feedback from the Group

The group reviewed the technical feedback process to date and whether the group is achieving its goals and objectives. Specific comments on the process are as follows:

- Landowners appreciate this process to get the input. Might not get to where everyone wants to be; you've tried to be responsive to our requests to the best of your ability.
- We're getting there; but we need to get through the projects.
- We've got to be accountable for forward progress; be outcome oriented; good to get on the same page as the landowners. Appreciate the efforts but we have a ways to go.
- Some participants feel that the SJRRP is not implementing the program according to the law.
- Better process than before; but still need to address issues
- Helpful for the NOAA people and will reduce time need for NOAA when it comes to permits and other agency reviews.
- If there is a way for Senator Feinstein to help get a solution in place let Shelly Abajian know.