

Seepage and Conveyance Technical Feedback Group

Wednesday, March 23, 2011 8:30 a.m.- 12:30 p.m.

San Luis Canal Company

11704 Henry Miller Avenue, Dos Palos, CA

Meeting Notes

Attendees:

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| Shelly Abajian | US Senator Diane Feinstein |
| Steve Chedester | Exchange Contractors |
| Dan Burns | Nickel Family Farms, LLC |
| Ali Forsythe | Bureau of Reclamation – Mid Pacific Region |
| Sarge Green | California Water Institute – RMC coordinator |
| Katrina Harrison | Reclamation |
| Steven Haugen | Mitigation Lands Trust |
| 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 | San Luis Canal Company |
| Rod Meade | Restoration Administrator |
| David Mooney | Reclamation |
| Craig Moyle | MWH |
| Anthony Neves | San Luis Canal Company |
| Patti Ransdell | CirclePoint |
| Dan Royer | Wolfsen, Inc |
| Michael Willis | 4W Ranch |

Attendance via Conference Line:

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| Beth Wrege | NOAA – National Marine Fisheries Service |
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Introductions, Meeting Objectives and Agenda

Patti Ransdell, facilitator, opened the meeting with introductions and the group reviewed the agenda. The primary purpose of the meeting was to introduce seepage avoidance actions and brainstorm potential project locations.

Technical Feedback Group Purpose and Charter

The first item on the agenda was to review the updated charter and gather feedback from the group. The purpose of this group is to provide a constructive forum to improve the information exchange, knowledge and understanding among agencies, water districts, landowners and settling parties. In addition, this group will also help develop a prioritized list of seepage avoidance projects. The charter has been updated to include the following objectives: setting evaluation criteria of projects, develop a common understanding of the process, procedures and expectations for projects and to identify potential projects that would avoid seepage impacts. There were no comments on the updated charter. The team agreed to take comments at a later date should any arise.

Action Item Review and Update

Katrina Harrison provided an update on the status of action items.

- Added MW-10 74/75 as a priority well
- Completed a site visit in Reach 3 and as a result two new wells be added on the west side of the river.
- Added the data and flow rate to profile graphs which are included in the revised SMP.
- Stephen Lee activated his voicemail on his cell phone.
- Looked at alternate well siting options near Sack dam
- Updated CCID well elevations and incorporated them in the SMP and Well Atlas
- An email notification will be sent to water districts and landowners when the final SMP is available.

Open action items

- Item 1: Sarge Green agreed to an April 1st deadline for the operating plan to incorporate impact of soil temperature on thresholds
- Item 2: Reclamation is very close to releasing the hand auger data. The data has been sent to the landowners so it's just a matter of time before the data goes out to the public.
- Item 3: Sarge Green and Stephen Lee will work together on a work plan for additional tensiometer work to develop more data on capillary fringe. The revised due date was set for April 1st.

- Item 4: This item is still pending; Katrina will send Monty and Chris the excel files that the graphs are based on.
- Item 5: This item is still pending: Katrina will add the river mile station to river profile and link to well locations.
- Item 6: This item is still pending: 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. This is a complicated issue and it may take some time to resolve it.
- Item 7: This item is still pending: Identify the Reclamation budget category and amounts of money available for seepage avoidance projects, including land acquisition and physical projects. Reclamation's challenge is to coordinate seepage projects with the other projects that need to be done. One way to start to identify funding is to integrate seepage projects with other goals the program has for restoration. There isn't really any priority between rural or urban uses of funds for seepage projects.

Action Item: Randy Houk will provide the information he has to Dave so Reclamation can continue to explore funding availability.

2011 Interim Flows

Dave Mooney provided an overview of the 2011 Interim Flows.

- At the beginning of the year Reclamation anticipated starting Interim Flows at 200 cfs and limited to 50 cfs below Sack Dam. Due to the precipitation received this year there has been lots of water moving for flood control. When flood control releases are necessary, Reclamation has to operate according to the Army Corps of Engineers requirements and is limited in how flows can be managed for other purposes. However, Reclamation uses this time to gather as much data as possible while flood releases are being made.

RA recommendations

Rod Mead provided an overview of what was recommended and expected for the 2011 Interim Flows schedule.

- One of the goals for this year was to do some real-time measurements to see what is necessary to meet temperature targets at key times of the year. The plan has been significantly altered, given the seepage management issues and ability of the Mendota pool to hold water. Reclamation is currently developing new recommendations based on what can realistically be accomplished. Reclamation is trying to monitor flows in terms of meeting temperature targets for fish at critical times during the year and to test the accuracy of the model we are using to forecast temperature changes. Reclamation will continue to track physical and water quality parameters as we move through the year. This will be an evolving process based on circumstances in the river and on adjacent lands.
- There was a question about the timing of releases and if it is known how many fish escape vs. how many are left stranded. Some fall-run salmon are going to be placed in the river as part of a

short migration and survival study soon so that will give the Program a good opportunity to understand how fish respond to different conditions.

Flood Operations

Dave Mooney provided additional information regarding how Reclamation can respond to flood releases and the possibility of using Interim and Restoration flows in order to manage for flood storage.

- Once flood conditions are reached Reclamation is directed by the Army Corps as to the quantity and timing of releases. Every 2-3 years there are flood releases of some magnitude. By making Interim Flow releases, additional flood conservation space may be created in the reservoir and help limit the need for flood releases. There are possibilities to modify operations to take advantage of restoration flows to modify flood flow hydrographs to benefit water supply and restoration.
- There was discussion about the fact that it is confusing for land owners in down-river reaches for there to be two types of flows, (flood and SJRRP related flows) in terms of who is liable for damages. The Settlement does not relieve Reclamation from releasing Interim or Restoration Flows just because there are also flood flows. Reclamation will coordinate with the flood control operators who ultimately decide if water should be routed down the bypass or in the river channel. As long as no channel improvement projects are in place, Reclamation leaves it up to the operator to determine what is in the best interest of residents and property owners. When the channel is improved and can handle the water Reclamation will send interim or restoration flows down the channel. If there are flood flows and restoration flows moving down river at the same time, there will be other logistics that will need to be worked out in terms of letting down-stream diverters know how much water they can take and how much water should remain in the river. Presently, everything is flood flows.
- A concern was raised regarding the Kings River because it also feeds into the Mendota Pool. Just because Friant drops below a flood level, doesn't mean there aren't capacity issues below the Pool. It was requested that Reclamation keep this in mind if they are going to make Interim or Restoration Flow releases.

Seepage Management Plan Comments

Katrina Harrison provided an overview of the comments that were received on the draft SMP.

- The site visit process was clarified for the final SMP
- The response time and process for site visits was also clarified in the document
- There were questions about how often the priority wells are monitored; they are monitored weekly.
- Hand auguring was also an issue that was brought up in the comments.
 - The group seemed to agree that individual landowners would want to work with Reclamation on a case by case basis to determine which type of tool (hand auger or pit)

used to gather the data. The group agreed that better information is obtained by digging a pit but due to the invasive nature this process it is really up to the landowner.

- Typically Reclamation does hand auguring 10ft or less but a few wells were dug to 20 feet.
- Some meeting attendees voiced concern about hand auguring because it doesn't gather soil data. Stephen Lee confirmed that Reclamation takes soil tests and get the lab results back.
- Hand auguring is done on site visits because there is a need to gather data quickly.
- The claims process will be revised and updated as more information is developed.
- Historic groundwater method.
 - The decision was made to look at 31% of wet years to set the threshold.
- The Program is also looking into doing a peer review panel to provide feedback on the SMP. The SMP is intended to be a living document and will continue to be revised as needed. Before starting the independent review panel the Program will want to discuss panel membership and the questions that should be asked with this group. The group acknowledged that it will be challenging to find people the right people to sit on the panel who have the right expertise but are impartial.

Seepage Project Locations

Katrina Harrison provided an overview of the Seepage Projects Handbook that Reclamation is planning to develop. The introduction of the handbook was the main focus of the meeting.

- Reclamation discussed the Locations of Identified Risks TM, a first cut a developing locations projects may be needed. Reaches 2B and 4B were not included in the analysis because site-specific studies are underway that will address seepage as part of the overall project. The group should keep in mind that this information is based only on the elevation analysis; there are other obstacles and issues that will need to taken into account as the list of identified areas of concerns is refined.
- A question was raised about the city of Firebaugh regarding whether or not it has been involved in any discussions regarding seepage and impacts of shallow groundwater on utilities. It was recommended that the Program get in touch with staff at Firebaugh and discuss the potential for issues to arise.
- It was noted that future analyses should also consider the lateral extent of influence when water levels are sustained over time.

There was a question about how accurate the analysis was north of Hwy 152. **Seepage Project Brainstorming**

Dave Mooney provided an overview of the major considerations and issues that need to be part of the discussion on seepage projects.

- There are a number of considerations that need to be discussed including design/feasibility, suitability of conditions, size, cost, etc. The idea is to identify the locations of problems and figure out what is going to work best for all parties. It was noted that landowner acceptance is an important consideration to keep in mind.
- The group then discussed the types of seepage projects that could be pursued. There was a question regarding the letters that The Nature Conservancy (TNC) has recently sent asking if people are interested in easements. It was clarified that TNC is distinct and separate from Reclamation and while they might have somewhat overlapping goals; they are two separate programs.
- Physical projects might include tile drains, slurry walls, drainage ditches, shallow well pumping and conveyance improvements.
 - Another idea might be to improve the existing distribution facilities to limit the seepage they contribute and thus keeping the groundwater levels below the thresholds.
 - It was also suggested that some type of “crop incentive” program be developed to encourage landowners to grow salt tolerant, shallow root zone crops. It might be possible to look into partnering with other agencies or entities to do those types of projects.
 - An easement might be the best mechanism for this type of solution.
- There was a question about whether or not cost was the most critical component to determine the viability of a project. It was clarified that cost is only one component of the evaluation. Effectiveness, benefits and initial capital vs. long-term operations and maintenance costs are some of the other considerations. Acceptability to the landowner is also a key component.

Challenges

Ali Forsythe wanted to review some of the challenges to be addressed as this process unfolds. It is important to head off those challenges early rather than deal with them at the end.

Ownership

- Who owns facilities that are built on private property?
- *Action Item: Reclamation will double check what is specified in the legislation but the group thought that right of first right of refusal was offered to the landowner.*

O&M

- Who is going to operate and maintain the facilities?

Discharge

- The group agrees that this will be a major issue to address. Three of the physical improvements identified will have discharge water that needs to go somewhere. Does it go to a local drainage ditch? Will it go back into the River? What permits are necessary? Who will be responsible for

compliance? What are the water quality concerns? Who owns seepage water and any associated discharge?

- It is important to deal with this issue early. Reclamation must comply with Regional Water Quality Control Board regulations. Everyone will be better served if this group discusses a solution before going to the regional board.
- Using local knowledge about how to proceed with projects without inducing seepage will also be important.

Long-term monitoring

- Is long-term monitoring needed? Who should be responsible for the monitoring? Who has access to the monitoring locations? What long-term monitoring is already planned?
- One suggestion for addressing this question was to use a combination of tools; such as creating a small easement where facilities are located so whoever is conducting the monitoring and maintenance can have access without impacting the landowner.
- One suggestion was to look at building on other programs such as Irrigated Lands Program for monitoring activities.

Cost Share

- Are there existing drainage challenges that could be fixed collaboratively and that would allow more flows in the river at the same time? Are there any opportunities to solve two problems at once and share the cost burden?

Terms of Agreements

- No matter what solution is developed Reclamation will have to enter into agreements with the landowners and/or local agencies. It will be challenging to work out the terms of these agreements regarding the roles and responsibilities and the hold harmless provisions.
- For the hold harmless provision, there will have to be agreement on what the obligation of the federal government is down the road if seepage issues arise after the initial concern is addressed.

Discussion

- The group suggested that the areas in Reach 3 will need a lot of attention.
- It was also noted that there have been two projects already established; Sand Slough control structure removal and the sand removal. Both of these projects should be a top priority for the Program.
 - The effort to remove the sand is underway and might be done this winter if not sooner.
- Several members of the group expressed an interest in keeping this process moving at an aggressive pace so that projects can be completed.
- There was a question about the use of the Chowchilla Bypass and if it can be used it would reduce the number of projects that would be needed.
 - The solicitor's office is currently working on the Chowchilla Bypass issue.
- It was clarified that the PEIS/R looks at the implementation of the Settlement. The PEIS/R will be useful because it provides cumulative analysis but it does not look at each parcel and each project.

Information and Data Exchange

- A contract to perform regional water monitoring has recently been awarded and there is new clearing house for water quality data. Perry Clausen is the new contractor and should contact Dave Mooney for information.

Next Steps and Follow Through

- The next step for this group will be to identify evaluation process for projects and how to select them.
- Reclamation is hoping to get comments back on the sites-specific parcels that need to be evaluated for projects. Reclamation will begin contacting landowners to inquire about doing a site evaluations, etc.
- Next meeting will be April 22 from 9:30 – 12:30 at San Luis Canal Company
- May meeting will be May 27 from 1:00- 4:00 p.m. at the RMC offices.

Comments on the Meeting

- The group liked the room set-up and layout.

New Action Items

- Randy Houk will provide the information he has to Dave so Reclamation can continue to explore funding availability.
Reclamation will double-check what is specified in the legislation but the group thought that right of first refusal was offered to the landowner.