

NOTES | January 5, 2012

Mono Basin Core Working Group Meeting

Prepared by Center for Collaborative Policy

Core Group approved 5/30/2012.

Meeting in Brief

The Core Working Group (Core Group) met with Southern California Edison (SCE) to discuss the feasibility of increased flows on Rush & Lee Vining Creeks; SCE will review the data and respond. The Modeling Work Group has completed the validation of eStream and will be ready to present additional scenarios in mid-January.

The Core Group authorized Ross Taylor to run Rush Creek temperature simulations of alternative flow-diversion strategies for Parker Creek and Walker Creek, and the modelers will conduct an eStream analysis to determine whether water from Parker & Walker is available for export or needed to maintain Mono Lake level. LADWP will solicit input from its attorneys re: options to preserve water rights while implementing Synthesis Report recommendations for continued curtailment on Parker & Walker.

The Core Group approved the Charter and reiterated that issues related to feasibility must be addressed within the facilitated process. Questions remain about the scope of the Charter and how to address 'kitchen sink' issues that could end up outside of the facilitated process, as occurred recently with limnology. LADWP shared a study by Geosyntec that proposes to revise the flows recommended in the Synthesis Report. Core Group members will review the study and determine whether consideration of this analysis is within the charge of the facilitated process.

Next Core Working Group Meeting: January 19, 2012, 8:30-2:30 p.m., Mammoth

Action Items

Due		Action Items
done	Bartlett	Check with SWRCB staff about availability to change meeting dates
done	Bartlett	Update Grant Lake Reservoir upgrade matrix, and add descriptive information.
	Ali Modelers Tyler	Fill in the matrix: construction, costs, and operation (Ali); export (modelers, given the link to eStream); and Lahontan (Tobi Tyler).
	Golden	Review Vorster & Reis presentation on shortfalls and determine feasibility of increasing flows on Rush & Lee Vining Creeks.
done	Reis	Send spreadsheets to SCE (from PowerPoint presentation re: shortfalls in Rush and Lee Vining Creek)
	Taylor	Run Alternatives 1 & 2 for Parker & Walker flow diversion strategies

2/1	Tanaka / Modeling Work Group	Conduct eStream analysis to determine availability of water for export vs. Mono Lake level maintenance (under a Parker & Walker no-skim scenario)
	Coufal Attorneys	1) Solicit input from LADWP attorneys re: options to preserve water rights while implementing Synthesis Report recommendations for continued curtailment. Attorneys to explain scope of concerns regarding loss of water rights and provide explanation of provisions offered by 1707 in-stream flow dedication or other option. For details on 1707 as well as the relationship of curtailment to temperature considerations for fish, see July 13-14 Meeting Summary, p. 4-6. 2) Convene attorneys to review information 3) Core Working Group to discuss options
1/3	Taylor & Trush	Identify elements for the Modeling Work Group to include in its presentations and analyses (i.e. graphing the number of “good days” associated with a particular scenario alternative or comparing exports with percentage of SEF’s)
1/19	Martin	Draft an outline for the ‘kitchen sink’ document
On hold	Modeling Work Group	Lee Vining Flows: Address with Modeling Work Group: potential to bring back to an 8-year flood event if Saddlebag releases 40cfs on Lee Vining (Synthesis Report, p. 78); modeling approaches for Parker/Water diversions (under the 98-05 rules)
On hold	Tillemans	Get data on 1995-2001 (when Grant did not go below spill for six consecutive years) to determine impact on dam and dam safety

SCE Discussion on Rush Creek & Lee Vining Creek Releases

Peter Vorster and Greg Reis presented data on SEF shortfalls on Rush Creek and Lee Vining Creeks (*Rush Creek and Lee Vining Creek Peak SEF Shortfall Analysis and Maximizing SEF’s with Existing Facilities*, 1/5/11 PowerPoint) to provide the “more specific information” requested in SCE’s letter in the feasibility report.

- **Rush Creek** data compared unimpaired flows to actual flow and identified the Stream Ecosystem Flows (SEF) 3-5 day peaks. The shortages on Rush Creek are high. Significant coordination and communication between all parties would be necessary to implement any flow increase (including monitoring and forecasting) and to maximize flows in bottomlands.
- **Lee Vining** data demonstrate that an additional 40 cfs would enable SEF’s to be met in most (99%) years and that the incremental benefit of adding 40 cfs would be particularly significant in years with the lowest cfs (291-373 cfs unimpaired, 250-300 cfs desired). The creek would still gain benefits during years when the recommendation is not met. Additional investigation (such as assessing the reach between Saddlebag and Slate Creek, where high 2011 flows resulted in scour) could help determine if assumptions are correct

and increased flows a possibility. As with Rush Creek, coordination and communication would be needed to ensure that infrastructure could handle increased flows.

In a preliminary review of the historic data, SCE's initial opinion is that meeting the **Rush Creek** shortfalls is not feasible, due to anticipated impacts to operations and facilities. SCE clarified that concerns about the FERC 4(e) conditions are secondary to facility operational issues. SCE will review the data more closely to determine whether it could contribute on a case-by-case scenario based on water years.

For **Lee Vining Creek**, SCE does not feel that it can make the recommendation of 40 second-feet. This recommendation would significantly impact operations and reduce generation to the Poole Power Plant below. If SCE were to use 40cfs during peak flows, it could not recapture and maintain the lake level at Saddlebag without impacting the concessionaire. SCE could increase flow below Saddlebag. SCE has similar concerns about the impacts to Tioga Lake, a small component of the overall watershed scheme. SCE is open to analyzing Tioga in the future, in particular to see how often (or if) Tioga Lake spills.

Next Steps

- SCE will review the presentation to determine the feasibility of increasing flows on Rush & Lee Vining Creeks. It will ensure that the duration values (for the Reis-Vorster data analysis) are consistent with the runs calculated by SCE.
- In the event that the proposed 40 cfs flow is not feasible for Lee Vining Creek, SCE will consider the possibility of releasing lower flows (including flows that would not cost SCE water).
- SCE will share with the Core Group its analyses regarding the capacity of the Poole Power Plant.
- Jon Regelbrugge will remain the point of contact with SCE and keep the Core Group apprised of progress.

Modeling Update

The Modeling Work Group has completed the validation of eStream and updated the Mono Lake elevation regression equations. It is working on additional eStream updates and concurrently developing Scenario 3, 4, and 5 rule curves (Modified Grant Lake Structure Operating Rules) in order to be able to present model runs for each Scenario. Development of eStream documentation and refinement of output metrics are in progress, and the team will next work to define and assess the relationship between Mono Lake levels, exports, SEF's, and Grant Lake operations. The model is 'running like a sewing machine' and ready for a January retreat.

Parker & Walker Skimming (Feasibility Report Topic #16)

Temperature Modeling

Ross Taylor presented a range of Parker Creek and Walker Creek flow-diversion strategies that would allow the fisheries Stream Scientist to model potential changes in water temperature in lower Rush Creek (*Range of alternatives for diverting flows from Parker and Walker Creeks for running StreamTemp scenarios on lower Rush Creek, 1/5/12*).

Possible Alternatives for Analysis

- **Alternative 1: Order 98-05 Diversion Rates** (diverting Parker & Walker Creeks in dry run-off years only). This alternative would demonstrate the effects of removing water from entering lower Rush Creek and the effect on the temperature regime and growth equation for brown trout. Depending on the effect, running alternatives 2 & 3 may not be necessary.
- **Alternative 2: D1631 Criteria** (minimum flows for normal and wet run-off years). This alternative would follow D-1631 criteria for minimum and flushing flows and remove flows that exceed the base and flushing flow values. This alternative would review input on sediment bypass as well.
- **Alternative 3: Variable Diversion Rates for Parker and Walker Creeks** (based on minor changes in stage height, similar to the Stream Scientists' approach on Lee Vining Creek). This approach would "skim" small amounts of flow from these creeks over a wider period of time, instead of concentrating diversions during the relatively brief snowmelt period. A general rule of thumb discussed was skimming 15-22% of flow.
- StreamTemp can run **additional alternatives** as well, based on input (i.e. specifics of flow and time) from the Core Group. Consideration of alternatives must evaluate how each would impact changes on lower Rush Creek. Significant increases in temperature are expected to result in a decrease in brown trout growth.

1707 Petition

Another option related to feasibility is a **1707 in-stream flow dedication**, one option for preserving water rights in cases where LADWP is not diverting. Other options for LADWP to preserve water rights while implementing Synthesis Report recommendations for continued curtailment may exist. The discussion of Parker & Walker Creeks in the July 13-14 Meeting Summary (pages 4-6) provides detail on the relationship of curtailment to temperature considerations for fish.

Next Steps

- The Core Group authorized Ross to run Alternatives 1 and 2. Upon evaluation of these two Alternatives, the Core Group will decide whether to develop diversion rates for Alternative 3.
- The modelers will conduct an analysis in eStream to determine whether water would be available for export or needed to maintain Mono Lake level, in the event that no skimming occurs on Parker & Walker. As the current priority for the Modelers is running the Scenarios, the eStream analysis may wait until the retreat.

- LADWP will solicit input from its attorneys re: options to preserve water rights while implementing Synthesis Report recommendations for continued curtailment. LADWP attorneys will define the problem, explain the scope of LADWP's concerns regarding loss of water rights, and provide an explanation of the provisions offered by a 1707 in-stream flow dedication and/or other options that would preserve water rights in cases of non-diversion. LADWP attorneys will present this to Core Group attorneys for discussion before presenting it to Core Group members.

Winter Base Flows (Feasibility Report Topic #27)

As the graphs attempting to mimic a natural winter flow depict a flow with continuous jumps of 5-10cfs, Ross utilized data from an unimpaired creek to assess the natural variability of winter flow. Buckeye Creek was chosen as no impoundment (i.e. reservoir) attenuates its flow, and it does not appear to be utilized for cattle or irrigation. Buckeye Creek displays a wide range of variability in winter base flows between dry and wetter year-types. The winter base flow in the creek shows significant increase in the last few weeks of March. Data from Buckeye show that there is a true base flow for most of the winter. Generally, Ross is open to continuing the discussion of decreasing winter base flows by "a few cfs" for several year types.

Next Steps

- Ross Taylor will review the Geosyntec Study and get back to the group.

Grant Lake Reservoir Upgrade Matrix

The Core Group reviewed the list of criteria for evaluating potential structural changes to Grant (see *Grant Lake Reservoir Upgrade Matrix*.) Gina had refined the list by group items into categories and presented likely "drivers". She encouraged the Core Group to treat the list as a worksheet to assist in determining whether each option would meet the requirements; she also reiterated that weighting the answers was not as important. Many of the drivers were unclear or lacked sufficient definition. The group discussed the meaning of each criterion and agreed the matrix could be useful to evaluate different options.

LADWP clarified that conducting a dam safety review would be a long-term major investigation and low priority relative to other projects.

Next Steps

- Gina will update the Matrix with the changes discussed and add descriptive information so that each driver is clearly defined.
- Core Group members or staff will fill in the matrix when possible according to their knowledge base:
 - Construction, costs, operation (Ali)
 - Export (modelers, given the link to eStream)
 - Lahontan permits information (Tobi Tyler)

Charter

The Core Group approved the Charter. As outlined in the Charter, the role of the Core Group is to address feasibility issues from the Synthesis Report recommendations, in addition to other outstanding issues ('the kitchen sink') identified by the Core Group. SWRCB-appointed scientists retain the right to communicate with the SWRCB independently. The Stream Scientists are the only ones that may change the Synthesis Report recommendations. Core Group members will not divert issues under discussion in the facilitated process to the SWRCB staff for resolution.

In a recent submission to the SWRCB, Brian White (the SWRCB-appointed director of the water fowl program and LADWP employee) recommended discontinuation of the limnology program, effectively removing the issue from the facilitated process and governance of the Charter guidelines. As the Core Group was unable to communicate with White prior to his submission, the recommendation does not reflect Core Group input. Core Group members interested in providing input on limnology will need to pursue the matter on their own with the SWRCB. Depending on the outcome of the SWRCB's decision, the Core Group may decide to reconsider the limnology issue at a future time. At the current time, however, the issue is no longer part of the facilitated process.

Several Core Group members express reduced confidence in the facilitated process as a result of this change. The Core Group agreed that issues related to feasibility must be addressed within the facilitated process and that the remaining 'kitchen sink' issues (i.e. monitoring, waterfowl) are still part of the process as well. Questions remain about the scope of the Charter and how to address 'kitchen sink' issues that, due to the independence of the SWRCB-appointed scientists, could also end up outside of the facilitated process. It will be important for Core Group members to continue to make progress on discussions regarding feasibility of Synthesis Report recommendations, despite the uncertainty surrounding the 'kitchen sink' issues. Mono Lake Committee felt the limnology submittal external to the facilitated process is a charter violation.

LADWP Proposal to Review Study on SEF Analysis

LADWP handed out a study (*Mono Basin Streamflow and Export Development*, by Geosyntec Consultants, Oct. 2011 – revised Dec. 2011) and proposed that Mark Hanna of Geosyntec lead a discussion about its findings at the Jan. 19th Core Group meeting. The study evaluates the SEF's and proposes to revise the flows recommended in the Synthesis Report. LADWP believes that the flows proposed by Geosyntec are feasible under existing facilities and would not require any infrastructure modifications (i.e. to Grant Lake) and still achieve the restoration goals as the Stream Ecosystem Flows. According to LADWP, feasible options to implement the SEF's are the existing facilities, which requires coordination with SCE, or to change the flows.

While the other Core Group members are interested in learning this new information, some are concerned that revising the flows represents a departure from the process laid out by the SWRCB and, consequently, a delay in progress towards identifying engineering solutions. Some acknowledge that LADWP has a right to pursue an independent analysis but feel that, as stated in the Charter, Core Group consideration of the analysis is external to the charge and authority of the SWRCB-ordered process. LADWP reiterated that all the pieces be identified and discussed during this process, including the Stream Ecosystem Flows.

Core Group members referred to passages from Order 98-05 that indicate the potential need for improved infrastructure to implement SEF's; one member also remarked that the SWRCB did not direct the Stream Scientists to provide flow recommendations for current capacity (i.e. a scenario with no infrastructure change). It was also noted that, over the years, many of the potential infrastructure approaches to restoration have been put aside already.

Next Steps

- Core Group members will read the Geosyntec study and consult with their attorneys.
- Gina will work with Core Group members individually to determine whether to include a presentation by Mark Hanna at the January 19th Core Group meeting.

Meeting Schedule

- The retreat is now scheduled for Jan. 31 & Feb 1 & Feb 2. It will be held in Sacramento. Gina will see if SWRCB staff are available for a meeting during these dates.
- Gina maintains an updated schedule of all meetings on Dropbox (Dropbox > work plan – schedule > All Meetings). The schedule provides the date, time, and location of all meetings of the Core Group and Working Groups. Please consult this for the most updated information about the status of upcoming meetings.

Attendance

IN PERSON

Gene Coufal, Los Angeles Department of Water and Power (LADWP)

Lisa Cutting, Mono Lake Committee (MLC)

Mark Drew, California Trout

Dan Golden, Southern California Edison (SCE)

Ali Karimi, LADWP

Dave Martin, LADWP

Geoff McQuilkin, MLC

Bruk Moges, LADWP

Steve Parmenter, Department of Fish & Game

Jon Regelbrugge, U.S. Forest Service

Ross Taylor, Ross Taylor & Associates

Brian Tillemans, LADWP

Tobi Tyler, Lahontan Regional Water Quality Control Board

Vince White, SCE

Lesley Yen, USFS

BY PHONE

Greg Reis, MLC

Stacy Tanaka, Watercourse

Peter Vorster, MLC

STAFF

Facilitator Gina Bartlett, Center for Collaborative Policy (CCP)

Note-taker Hannah Murray (CCP)