

Draft Meeting Notes

TRINITY MANAGEMENT COUNCIL

December 7-8, 2022
Shasta-Trinity National Forest Office
3644 Avtech Parkway
Redding, CA 96002
and
MS Teams Video Conference

Day 1, December 7, 2022 9:00am

TMC Members

Primary	Representative Seat
Justin Ly ¹	NOAA Fisheries, Chair
Don Bader ¹	Bureau of Reclamation, Vice Chair
Tanya Sommer	U.S. Fish and Wildlife Service
Michael Dixon	Trinity River Restoration Program, Executive Director
Mike Orcutt	Hoopa Valley Tribe
Brett Kormos	California Department of Water Resources/Fish & Wildlife
Tim Hayden	Yurok Tribe
Keli McElroy	U.S. Forest Service
Liam Gogan	Trinity County

Others in attendance: Seth Naman (NOAA), Elizabeth Hadley, Emelia Barnum, Linsey Walker (Reclamation), Justin Alvarez (Hoopa Valley), Radley Ott (CDWR), Ken Lindke (CDFW), Kyle DeJulio, Chris Laskodi, (Yurok), James Lee, Chad Abel, Oliver Rogers, Todd Buxton, Elliot Sarnacki, Brandt Gutermuth, Jeanne McSloy, Kiana Abel, Veronica Yates (TRRP), Nick Hetrick, Bill Pinnix (FWS), Roman Pittman (NOAA), Trevor Morgan (DWR), Keith Groves (Trinity County), Luke Decker, Summer Skall (USFS), Lauren Alvares (BLM)

Notes: Sabrina Kleinman (EPP)

¹Bader served as Chair for the meeting as Ly was attending via MS Teams Video Conference.

List of Motions

Tim Hayden moved to approve the December 2022 TMC agenda.

Tanya Sommer seconded the motion.

The motion passed unanimously.

Tim Hayden moved to approve the June 2022 TMC meeting notes.

Keli McElroy seconded the motion.

The motion passed unanimously.

Tim Hayden moved for the TMC to implement the WY23 flow recommendations from the Flow Work Group outlined in the September 8, 2022 memo from Seth Naman to the IDT.

Keli McElroy seconded the motion.

Ly made a friendly amendment to add "Initial findings from WY23 monitoring will be presented to the TMC prior to a recommendation on WY24 flow management.

Hayden and McElroy approved the amendment.

Motion passed with seven votes in favor and one opposed. The Hoopa Valley Tribe opposed the motion.

List of Motions (cont.)

Brett Kormos moved that the TMC, with assistance from TRRP staff, draft a letter to the DOI Regional Directors that makes clear that the Program Document and bylaws are insufficient and incomplete at this time due to a lack of codified authority for the TMC in service to the DOI to set its own agenda and make recommendations consistent with the best available science, restoration, and resource management. Further, the letter will request direct engagement with DOI at a future TMC meeting to respond to these concerns verbally and to provide an opportunity for direct communication with TMC membership.

Kyle DeJuilio seconded the motion.

Justin Ly made a friendly amendment to include all three DOI Regional Directors (BIA, Reclamation, and USFWS).

Kormos and DeJuilio approved the amendment.

Ly made a second friendly amendment to add "Alternatively or in addition, the TMC request that DOI leadership respond in writing."

Kormos and DeJuilio approved the second amendment.

The motion passed with six votes in favor, one abstention, and one vote opposed.

Reclamation abstained and the Hoopa Valley Tribe voted against.

Welcome and Introductions

Ly opened the meeting with introductions and asked Bader to chair the meeting to better facilitate discussion since he would be joining via MS Teams.

Approval of Agenda

Dixon noted the winter flow variability discussion was moved earlier on the first day, which bumped Humboldt County's presentation to later in the day. Gogan asked if changes to the agenda required a specific amount of time for the public to review them. Dixon explained there was no requirement in the bylaws.

Tim Hayden made a motion to approve the meeting agenda.

Tanya Sommer seconded the motion.

Motion passed unanimously.

Approval of June TMC Meeting Minutes

Dixon explained the minutes were not included in the TMC meeting folder but had been posted to the dataport two weeks prior. These are the June minutes, which were not approved at the planned September TMC meeting.

Tim Hayden made a motion to approve the June 2022 TMC Meeting Minutes.

Keli McElroy seconded the motion.

Motion passed unanimously.

Comments on Non-Agenda Items

Orcutt announced an upcoming DOI Science Workshop taking place next week in Ashland as part of a series of summits. Hoopa Valley Tribe will present on the TRRP and the Refinements process, and how it applies to management issues. The presentation will review larger basin-wide issues.

Program Updates

Executive Director's Report

Dixon noted the report covered activities and updates from September to December. Last quarter's report was prepared for the September TMC meeting and is available online. The Program is focused on work at Oregon Gulch. They are also working on two NEPA processes that will refine the use of various restoration tools. The first is a programmatic EA that provides umbrella coverage for tributary and upslope restoration work conducted or funded by the TRRP or other public lands, specifically U.S. Forest Service and BLM lands. The second is an EA for new gravel augmentation sites.

Organizational Updates

Elliot Sarnacki joined the TRRP as the civil engineering technician in October. He is coming from Katmai National Park. Abel has accepted a position with the U.S. Fish and Wildlife Service to coordinate water resource work for the National Wildlife Refuge system. He will work remotely out of the TRRP office but will no longer be part of the TRRP starting in January. Gutermuth will retire after over 20 years with the TRRP at the end of December. The TRRP will host a retirement party for him in January and Dixon will send out details once confirmed. There has been no progress on the two remaining vacancies, with the outreach specialist responsibilities being divided among TRRP staff, especially Kiana who has taken on more responsibilities for outreach and graphic design.

FY23 Budget Updates

There have been no changes to the FY23 budget. However, the TRRP is still operating under a continuing resolution, which has not impacted the Program yet but could affect the upcoming AFAs if a continuing resolution is in place when negotiations start. Dixon will have a better idea of how much will go towards Oregon Gulch once the FY23 science proposal are funded and they complete the appraisal for the River Acres house, which is needed to buy the rights for a flow easement. Dixon reminded the TMC that the channel rehab portion of the budget is used as the balancer, with funds added or taken away when other line items are finalized.

Orcutt asked what happened to the notes taken during the TMC discussion after the September TMC meeting was canceled. Dixon explained the notes were informational and were not formally part of the TMC record but are available on the calendar page for the meeting. Reclamation sent the notes to Washington DC to capture the discussion after the TMC failed to approve the agenda. Orcutt asked Dixon to keep the TMC informed of any updates on them because there were differing views on what happened. How the documentation was conveyed to each member needs to be understood.

Watershed Grants

NFWF will release their pre-proposal request on January 10, which will include the funds from this year's budget (\$500,000) and residual funds from last year, for a funding total of around \$600,000. They plan to issue the request for full proposals in late February based on a subset of

the pre-proposals. Their established workflow should allow them to notify grantees of their awards by the end of May, allowing projects to start in time for the field season.

Phase II Review

Interfluve made one more trip last quarter to visit sites and conduct interviews with willing parties. They are currently developing their draft recommendations and will present their findings to the IDT in March. Based on their feedback, they will develop the final report, which will be presented to the TMC in June.

Refinements

Bader, Sommer, Som, and Dixon met with the USFWS and Reclamation Regional Directors in November to update them on the Refinements process and to discuss remaining unresolved issues. The Directors are considering the issues raised during the discussion and may give input on how to proceed. Copies of the Program Document have also been submitted to the Office of the Solicitor for review. Orcutt noted it was unclear what would happen with the Program Document as it was slated for approval by the TMC in September, then was deferred. The contract for the Refinements process is nearing the end and it is unclear what was submitted to the Regional Directors since nothing has been adopted yet. Dixon explained the version the solicitors are reviewing incorporated the feedback received to date from TRRP partners with a cover letter summarizing the remaining issues. Orcutt noted he participated during previous discussions with the Solicitor (as part of the Law of the Trinity) but was unclear why they were involved now. Bader explained Reclamation waited until the final Program Document was ready before seeking the Solicitor's review.

Implementation Update

Oregon Gulch is moving along. The most recent QC report indicates that around 25% of the rock has been exported from Eagle Rock. Recent rain prevented hauling for a few days, but the crews have made up ground. Material is now being transferred from the Yurok Tribe to Eagle Rock while BLM material stays on federal property. More processing is needed for features but the effort is moving along. Additional funding for the project indicates that it could be finished this fiscal year rather than over three to four years. Dixon noted the funding would cover civil engineering and work will be needed to complete revegetation in the next fiscal year.

The State-Tribal Design teams received the Value Engineering report for Sawmill and Upper Connor Creek. The gravel augmentation EA is almost ready for public review but was delayed after a request from the BLM due to project backlogs. It is now scheduled for public review for mid to late January. The team preparing the programmatic EA for future restoration projects met last week and the document is moving along. Yurok completed gravel processing at Sawmill in October. They produced extra fish rock and plan to haul it upriver, while back hauling oversized rock for Oregon Gulch in a few weeks.

Outreach

The Implementation team has been busy with outreach and has hosted several public events as the TRRP comes out of COVID. There is a renewed focus on outreach and engaging the

community. They held a public scoping meeting on November 17 for the programmatic restoration EA. They also co-hosted the Salmon Festival. Yates hosted a planting event at the end of October that was also well attended. The Science on Tap program has been incredibly successful with Mike Belchick presenting last month drawing a capacity crowd. At the end of the presentation, they received word about the permit transfer for the Klamath, which resulted in cheers. They are also conducting a lot of landowner meetings for the gravel augmentation EA and channel rehab projects. The TRRP is planning several outreach opportunities for next year, including a Wild and Scenic Film Festival in Weaverville at the Performing Arts Center in March.

Science Update

The IDT received four investigation plans for FY23 funding, which were sent to the SAB for review. The SAB sent their reviews late Monday. The projects, as proposed, will amount to less than the \$500,000 allocated.

Lee receives weekly updates from Steve Gough on the redd surveys, who is also posting monthly formal reports to the USFWS website. While earlier in the season it looked like it could be a high year for Chinook redds, their numbers have flattened out to about average. Lee recommended interested folks could sign up for the updates. Additionally, TRRP is coordinating with Mary Clair Kier at CDFW for the weir surveys, which are used as an index for population data. Lee can connect those interested to her email list for updates.

Since June several synthesis reports have been reviewed and updated, including the temperature synthesis and the coarse sediment reports, which are in final edits. Finalized reports, which are posted to the dataport include:

- Trinity River juvenile salmonid habitat synthesis: physical habitat capacity at the restoration site and reach scale.
- Assessing temperature regimes and juvenile Chinook salmon growth in Trinity River off-channel and mainstem habitats.
- Long-term analyses of estimates of abundance of juvenile Chinook salmon on the Trinity River, 1989 – 2018.
- Evolution of tributary junctions and their capacity for rearing juvenile Chinook salmon (*Oncorhynchus tshawytscha*) on a regulated river. (Also published as a journal article)
- Trinity River winter flow white paper
- The mechanics of diurnal thermal stratification in river pools: implications for water management species conservation. (Also published as a journal article).
- 3D CFS modeling of river pool stratification characteristics.

Dixon recommended the juvenile salmonid habitat report as highlights what the TRRP has done right and how they have been innovative based on what they have learned.

Additionally, the post implementation reports for Dutch Creek and Chapman Ranch have been posted. The riparian revegetation and monitoring plan was also finalized, signed, and approved

by the North Coast Regional Water Quality Control Board. Gutermuth recommended additional partner input for the next version but had not proposed a timeline for updating. The plan will identify and mitigate impacts to vegetation during restoration work.

Hayden asked Lee to review the peer review process used by TRRP. Lee explained they use volunteers for shorter papers but contract them out for longer ones using an existing USFWS contract. Two experts in that field will review and provide feedback on the papers with Lee refereeing the process to ensure the authors address the comments. Dixon added the USFWS contract is a BPA that uses a suite of contractors for reviews. This process differs from standard peer reviews for journal articles where experts see reviews as a duty to their field of practice. For many of the TRRP documents, these are lengthier technical reports and documents and they have had a harder time finding reviewers.

Orcutt asked if the TRRP 2022 Winter Flow Variability Report was the same one sent out in August and noted it was originally sent as a Reclamation report. Dixon explained the report is from the original EA prepared for the winter flow proposal. The contractor had initially used a Reclamation cover page for the report, but it was republished to recognize the TRRP and its partners' contributions as authors. That version was posted to the data port. Nothing else changed in the report. Orcutt thought such changes needed to be reported to the TMC.

Work Group Briefings

Fish (Pinnix) – The Fish work group met last month to review metrics to evaluate if the winter flow proposal proceeded.

Design – Lee reported they met on October 5 to review updates from each of the Design teams on many of the projects Abel reported on earlier. They also set their meeting calendar for 2023, as noted in the Executive Director's report.

Flow (Seth Naman) – The Flow work group did not meet this quarter, but are scheduled to meet on December 19, depending on the winter flow proposal.

Watershed (Chad Abel)– The Watershed work group did not meet this quarter but will need to find a new coordinator with Abel leaving.

Physical (Todd Buxton) – The Physical work group met on November 29 to discuss gravel augmentation near Lewiston. They are evaluating moving gravel to the river sooner instead of moving and stockpiling it. The group discussed several ideas and will continue to dig into potential options.

Riparian and Aquatic Ecology (Chis Laskodi) – The Riparian and Aquatic Ecology work group did not meet this last quarter, but plans to meet depending on the winter flow proposal

IDT (Lee)– The IDT is meeting next week to discuss WY23 flow scheduling, the FY23 science proposals, FY24 science planning, SAB staffing, and work group coordinator changes.

CVP Operations Update

Trinity Reservoir is currently at 38% of normal with precipitation in Weaverville at 36-38% of average. Inflow to Trinity Lake is at 15% of normal for this date. Despite several recent storms, reservoirs are still not in great shape. However, the next expected storm is projected to bring a lot of rain and there's another storm forecast for the following week that should be even bigger. Currently there are no diversions planned going into the spring. Reclamation plans to review the Whiskeytown fill schedule at the beginning of the year and will coordinate with NPS on the lake elevations. They are hoping to use natural runoff to fill Whiskeytown and will keep the partners updated.

The Trinity Temperature Task Group has continued meeting and will remain as a placeholder for now depending on how the winter pans out. They discussed bypass plans and how to hit the 50°F temperature targets. The changes in fall of 2022 resulted in approximately \$800,000 in lost revenue, but they were able to meet their temperature targets.

Naman asked when Reclamation rethought its decision to generate power. Bader explained it was his recommendation to the Regional Director based on the Task Group's decision. Orcutt asked if the task group would be a formal subgroup of the Sacramento team. Bader had recommended it since the Trinity was not getting the attention needed as part of the Sacramento groups. Orcutt asked if the team would be TRRP-based or Reclamation. The team is a Reclamation team but Bader is open to keeping it open to other agencies. He commended Kerns & West for their job facilitating the group.

Reclamation has currently switched the power plant to bypass due to a contractor working on a key piece of infrastructure.

Reinitiation of TRD Consultation

Reclamation scheduled a meeting on December 15 to kick-off the reinitiation. Dixon noted the invite went to many agency staff and may not have been sent directly to TMC members. ICF will facilitate the meeting, as they are also preparing the CVP side of the consultation. The intent is to prepare them in parallel and it will be the first time Reclamation consults on both sides together. Dixon has led several one-on-one discussions with partners for ideas, but the meeting will include others and will review the ideas for analysis.

Orcutt asked if the Proviso 2 water would be included in any of the modeled scenarios. Dixon noted it was an open question but likely will not as Humboldt County will not have their proposal ready in time. However, they are open to discussing it but unsure if based on timing. Orcutt explained the Proviso 2 water would change the annual water volumes being modeled. Ly asked when the BA would be submitted to NMFS. Bader explained they were unsure but hope to get a proposed action to the CVO by the end of the month and then to NMFS by the end of March. However, the schedule has not been set beyond that and will be part of the discussion on Thursday. Dixon added Humboldt would be presenting later in the day so there is a chance to discuss it then.

BREAK

Winter Flow Variability Status and Next Steps

The topic was pulled from the agenda in September because DOI was not ready for TMC to consider a recommendation on the topic until it had further time to understand the differing perspectives of the two tribes. The Flow work group asked the TMC to consider the proposal from the previous year. Naman explained the winter flow action, as outlined, is based on the best available science that uses a rule set and decision tree to determine the timing and size of flow events based on a series of triggers. The flow action would be for a single year.

Bader noted flow actions are based on water year determinations, but the action would start before that determination is made. Naman explained critical flow volumes begin in December and are not water year dependent. If a large enough storm occurs in that time period, a 6,500 cfs peak could be released. If not, elevated base flow periods could occur in February or March depending on the water year, which would increase habitat for Chinook salmon fry and other salmonids when they need it. Bader explained Reclamation views the action as a pilot program and a one-year action for consideration.

Naman added the current approach is the only available method with logistics on how Reclamation can release flows in the winter. There could be other methods outlined in the future, using adaptive management and as more information becomes available. However, the current approach is the only one that has been modeled and thought out for Reclamation to release flows in the winter while staying within ROD volumes and considering other flood constraints and logistical issues.

Ly asked Naman to confirm the expected impacts to reservoir levels. Naman explained the action would be neutral for ROD flow volumes as it uses the same amount of water and would not impact reservoir levels and storage in the summer. The analysis does show some benefits as boat ramps will remain wetted longer during the recreation period, especially during spill years as less water is spilled.

Ly asked if the winter flow would aggravate coho egg mortality in the fall. Naman explained the action would not start until December 15 when most of the coho have already spawned. Water temperature changes from the release would also not be as large as during the summer. If the 6,500 cfs flow occurred when the water is warmer, there would be a concern. Additionally, the likelihood of redd scour is very low at these flow levels. However, given ambient air temperatures, it's unlikely. If the water is warmer, Lewiston could be used to ameliorate the temperatures during the large flow event, which should be monitored. However, if the 6,500 cfs flow does not occur, there would be no change to current operations. Ly noted the reservoirs are also turning over, which should result in consistently colder water.

Hayden made a motion for the TRRP to implement the WY23 flow recommendation from the Flow Work Group as outlined in the September 8, 2022 memo from Seth Naman to the IDT.

McElroy seconded the motion.

Gogan noted a comment in the Trinity River Survey document that indicated he was against the winter variable flows because of his personal interests as a fishing guide. He noted he was not currently a fishing guide and had not done more than 15 to 20 days over the last year. The comment also indicated his interests as a business owner. He wanted to note that the proposal would not affect his livelihood, as his store does well north of \$1 million. As a Board of Supervisors representative, he had talked with Trinity County CAO Garza. TRRP came before the Board before the previous vote and Garza would like the TRRP return and explain what changed in the proposal in the last month and its ramifications on water and power at their next meeting. Dixon explained the survey would be discussed tomorrow. Gogan wanted the TMC to know he did not vote based on his own personal interests.

Dixon explained there were no changes to the proposal and no changes to water and power impacts since September 6. Gogan indicated he would vote no until the TRRP came to the Board to explain the change in the vote timing. Dixon asked if the Board had changed its recommendation in support of the proposal. Gogan explained Garza was ok with the TRRP explaining the status of the proposal to the Board. The Board was unaware of the vote until the night before and wanted to know why it wasn't discussed at the last meeting and what happened. Dixon noted the CAO works for the Board and could not override the Board of Supervisors. Naman added the TRRP presented the proposal to the Board several times and nothing changed in its proposal and asked why Gogan thought there was new information the Board did not have. Gogan explained the Board had not received any new information since September. Gogan asked if the Flow Work group would be willing to return to the Board and state that nothing had changed; Naman replied of course. Furthermore, Naman explained the proposed action had not changed since December 2021. Gogan noted that he would need to discuss this information back with Garza to let her know so she understood the current state of the proposal and that he may be able to entertain a vote the following day.

Orcutt has continually requested written information from the Solicitor's office on why the Washington office cleared the way for the TMC to take action on this. At the last meeting, DOI in consultation with the Assistant Secretary for Indian Affairs, pulled the item from the agenda along with the decision on voting protocols. Orcutt has not heard the full explanation on why that happened and felt the discussion became personal and directed at specific individuals. The Hoopa Valley Tribe has not received any clarification on why the agenda items were removed and then put back. The other issue is on changing the voting protocols, which was raised during Refinements and it appears the TMC wants to change the rules when it dislikes certain decisions.

Orcutt asked why the TMC is being asked to consider winter flow again. The TMC did not approve implementation of winter flows as a Board of Directors during the previous year. Since then, the TRRP has directed everything toward implementing winter flows despite the motion being defeated and brought back again. Orcutt thought the assertion that the proposal was based on the best available science violated some of the assumptions made and there are better

approaches than what has been proposed to the higher levels of the DOI. The Hoopa Valley Tribe maintains, as noted in the ROD, that they must concur with how flows are implemented and are currently in litigation with Reclamation over it. The Hoopa Valley Tribe has not received clarification on what constitutes a deviation in covered ROD flows. They have corresponded with the Secretary's office and tried to schedule meetings. Bader noted Reclamation staff have been directed not to discuss the litigation.

Ly asked if Hayden's motion included monitoring for the objectives proposed in the flow variability report. Hayden assumed it was and asked if a monitoring program had been developed to evaluate flows. Naman explained the winter flow report included a table of elements to monitor and how to monitor them. The assumption was it would be included by default. Ly asked if the memo to the IDT included anything on the monitoring results being reported to the TMC prior to WY24.

Ly added a friendly amendment that" Initial findings from WY23 monitoring be presented to the TMC prior to a recommendation on WY24 flow management."

Hayden and McElroy approved the amendment.

Naman was unsure if the annual flow report specified analysis of winter flows in their report to TMC. Dixon noted it was included in the draft language sent to TMC in September. Naman added Buxton had included several of the factors in the flow report over the last several years, but there are others that could be more explicitly reviewed as part of a separate report at the end of the water year.

Kormos called for a recess to allow Gogan to contact the Trinity County CAO to confirm the County's position after hearing that the proposed action had not changed since the Trinity Board of Supervisors voted in September and clear up the misunderstanding on the agenda. Bader agreed and added that the vote from last year for was for a one-time action voted down in WY22. This action would only apply to WY23.

BREAK

Orcutt wanted to correct that the request he made to DOI was on the long-held DOI opinion that additional NEPA was required for changes in flow management.

Motion approved with 7 votes in favor and 1 vote opposed. The Hoopa Valley Tribe opposed the motion.

LUNCH

Tributary Junction Evolution

Buxton presented two papers recently published synthesis reports, the first was on tributary junction evolution. The effort was initially started by Robert Stewart and Dave Gaeumann, who have since left the TRRP. The original proposal was to evaluate tributary junctions with additional field measures. Instead, they used existing data for two differing junctions. Tributary

junctions are some of the most biologically active, physically dynamic, and complex segments of the river. Adjustments by rivers at junctions cover a wide array of changes and evolutions which affect habitat and nutrient availability, making them biological hotspots.

The study looked at Rush Creek and Indian Creek, which were chosen due to the availability of data. Rush is near Lewiston and accesses a wide alluvial valley with high side channel and topographic diversity. Indian Creek, near Douglas City, is narrower and accesses a steeper valley. Rush Creek also have finer grain sizes than Indian Creek. The study looked at a variety of factors that affect the evolution of bar and alluvial fans using historic and current data to determine changes related to flows and regulatory actions since 1960. It also looked at changes in riparian vegetation, which can influence bank stability and wood inputs. Both areas had vegetation surveys in 2003, 2009, and 2018. Vegetation was broken up into woody, herbaceous (or non-vegetated) and active channel segments.

Sediment augmentation also influences junction evolution, which is delivered by the creek and river and augments banks and fans. Most TRRP-supplied sediment is done near the dam, with some sediment supplied by deltas from creeks. When looking at estimated bedload contributions at each study area, dam closures shut down the water flow needed to move sediments. Indian Creek receives more sediment over time with transport varying widely. In general, flows provided under the ROD increase sediment transport. However, Indian Creek provides more sediment except during the ROD period when the creeks add the same median bedload, resulting in more sediment at Indian than Rush Creek.

Looking at sediment supply, the river provides more bedload than the creeks. When the river provides more bed load, the creeks supply less. When bedload is higher in the creeks, the contributions come from the tributaries. When flow increases, the river's contributions take over. Since the ROD period, the river has started behaving more naturally, indicating the success of the ROD. Flows have shifted over the reviewed time period, with the lowest flows occurring after dam closures and volumes and flow steadily increasing in the current period. Overall, Indian Creek gets more sediment and flow than Rush Creek.

The differences between the two creeks in sediment contribution, flow, vegetation, and valley structure influence how they respond. At Rush Creek, the active channel shrank from 100,000 m² to 40,000 m². However, when flow increased, the area almost immediately increased. Indian Creek, however, shrank from 40,000 m² to 28,000 m² and has hovered between 30,000 – 40,000 m² since the ROD.

Bar area shows a similar story with large decreases that have not regained their former size. Bars decreased at Rush Creek as the alluvial fan took over and has started to increase at Indian Creek. Alluvial fans started to grow after flow regulation and have since grown dramatically at Rush Creek because higher river flows are mistimed with tributary high flows. This results in sediment being delivered to the river and staying there and because it takes a lot more energy to get sediment moving than to keep it moving.

At Indian Creek, the valley is restricted by flows and vegetation. Flows take sediment away after they are delivered. Since the river is constricted by the valley wall, the mainstem has little room to spread it out or wash it away, resulting in downstream bar growth. Bars caused the banks to retreat and was further aided by the rehab project in 2008, which scalped the banks and weakened its strength, giving more space for bar development.

Looking at the aerials, Rush Creek has no delta but a large point bar feature. After the dam closure, the river remained confined to planted areas. TRRP built a wandering channel in 1990, which failed in 1997, resulting in a series of multi-thread channel with more flow resistance. Over time, the islands eroded and formed a single thread channel that now puts nearby houses at risk of being washed away in the next 20 years as delta sediments push the river away.

At Indian Creek, the valley is confined by steep hillslopes. Before the dam, the river could flood the southern portion, but since then, the river is confined by vegetation encroachment and delta confinement. This sediment gets washed and dispersed into bars, which then become vegetation. This roughness promotes further bar formation and could threaten Hwy 299 over time as the channel shifts to accommodate it.

For fish production, the study broke the river up into 10 km sections and ranked their capacity for Chinook salmon. Rush Creek had higher capacity when flows were above 50 m³/s. This occurs because the river can spread out. When the channel is confined, like at Indian Creek, the story changes. During base flows, capacity jumps a little but stays relatively flat at higher flows.

The study finds that wider valley are more affected by flow regulation than narrower ones, but can recover quickly and have higher juvenile rearing capacity for Chinook. Valley confinement is a primary factor for the response at tributary junctions with vegetation modulating the effect. Wandering channels promote current deposition and facilitate the formation of low relief areas. While vegetation removal and channel widening at Indian Creek did work to increase dynamics and complexity.

Lee asked if the TRRP had an objective to shrink the delta at Rush Creek. Buxton explained that when the river is in sync with the tributaries, delta development is less likely. However, the mistiming of flows with tributaries results in higher sediment supply relative to the river. The change was a fortunate mistake of flow regulation because the delta development at Rush Creek contributed to higher rearing capacity. However, the resulting channel migration also has safety concerns as it could threaten people's homes.

Naman asked if there were certain flow volumes where the property concern was most at risk. Buxton was not able to do so since they used surveys of the delta and aerial imagery and noted that surveys can miss half the delta each year due to the assumption that the delta doesn't change. Gogan asked if he observed any big changes tied to drought or agricultural use over the last two years noting that Brown's Creek and Indian Creek no longer runs in the summer. Buxton noted they did not take those factors into account due to a lack of data on them. However, removing the vegetation would pose other problems as future floods would wipe that material out. In the

meantime, there will be concerns because the flood channel is lower but the material is helping the fish in the stream. At Brown's Creek, the sediment is 2 feet lower in places, so the supply might be affected by vegetation encroachment.

Abel asked if there was a recommendation to complete the restoration proposed at Rush Creek. Buxton would leave it alone but noted DeJuilio had some interesting ideas on addressing tailings piles located on the north side of Rush Creek valley. DeJuilio specifically noted there was a large area on river right with more complex habitat that was not fully developed. Its high functioning now but not as much as it could be. Buxton noted the analysis was also restricted with the aerial photography analysis because they only used available aerial images rather than an annual time step. If they had annual aerials, they could describe changes between years. However, the paper became too detailed and adding more analysis would have made it more confusing.

DeJuilio noted the Rush Creek delta needed to be addressed and asked if Buxton had any recommendation on goals for similar reaches. Buxton advised to leave them alone but liked DeJuilio's idea of restoring floodplains on the river right-side of the valley near the hillslope. The river is semi-naturally functioning and there isn't natural behavior of the magnitude observed at the deltas anywhere else in the restoration that Buxton can think of. The two tributary locations are where alluvial bar development and channel adjustments were the most striking. Ly asked how far down the Trinity tributary delta aggradation was occurring. Buxton explained it depended on the tributary junction being considered. In many cases, sediment deposits at tributary junctions are localized features that persist for only short periods of time. A large sediment deposit developed after the Carr Fire at the outlet from Deadwood Creek that was gone by spring. He anticipates a similar effect in the aftermath of the Monument Fire at Soldier Creek but noted they provide benefits to the river and fish.

Dynamics of Diurnal Thermal Pool Stratification

The second published paper assessed thermal stratification of river pools. The Trinity River is 55% narrower than before the dams but experiences a summer base flow that is 240% higher than pre-dam conditions. Higher summer flows provide colder water for spring Chinook but can also suppress the food base and the size of salmonid juveniles. Smaller juveniles have lower survival rates, which may depress future populations at higher baseflows. Thus, cold and warm water pools are needed. Thermal stratification describes the arrangement of water temperatures known as a thermocline. Warmer water stays at the surface and decreases with depth until the temperatures stay the same. This effect is typically limited to depths below 2 m, which is the limit that solar radiation can penetrate clear water. Abel asked if this was related to reduced clarity. Buxton noted it was and explained the mechanisms of the stratification process have not yet been defined but are addressed in the paper. Understanding what controls stratification can enable TRRP to manage flows to cause stratification and meet the warm and cold water needs for aquatic species.

The team collected bathymetry data at two pools along with meteorology and flow data of water entering and exiting the pools. They also measured water temperatures and velocities to describe

the temperature dynamics and modeling to determine what variables control stratification and how to predict the process and critical discharges for it. The pools included one on the Upper Trinity (UT) and one near Pear Tree, upstream of the North Fork (PT). The PT pool is twice as large as the UT pool while being of similar depth. Temperatures were taken every 15 minutes. They also monitored air temperature.

Under stratification, water enters the pool and slides on the surface before exiting. Incipient stratification occurred at a discharge rate of $1.3 \text{ m}^3/\text{s}$ when daily air temperatures were low. Key needs for stratification were low flow and temperature variation between day and night. Diurnal variation is conserved during the day through subcritical discharges. Once it's formed, it replicates itself throughout the summer, forming in the early morning and persisting until late afternoon. It also forms daily in late fall and can last up to 20 hours. On hot days with cool nights, stratification forms longer, but on cool days and nights, it is shorter. It can also occur when the air is below freezing as the top surface is less dense than the lower depths, preserving the cold-water pool until the top layer cools enough to destroy the stratification. Spring Chinook depend on this dynamic.

At the PT pool, the discharge rate is unnaturally higher, while discharge at UT pool is lower with lower flow energy, making it more placid. The base flow at PT pool is of sufficient strength to fully mix the pool keeping the water from stratifying. At UT pool, the flow velocity in the summer is less than 6 cm/s and is mostly less than 3 cm/s with a well-defined thermocline. The warm water flows along the top and exits at the riffle below. However, when flow is increased, temperature isoclines form because discharge is too high. This results in almost no difference in temperature and no temperature variability. This could affect species as they cannot access preferred temperatures for their metabolism.

Using statistical modeling, they found the degree of stratification was significantly correlated to the daily change in air and water temperature. They also looked at sun exposure and several other variables and found temperature stratification was more affected by meteorological forcing on the upstream area of river than on the pool itself.

Based on modeling and observations, the early morning period showed the most deviation in water temperatures as it was the period when the stratification first forms. At 9:00 am, the coldest time of day, stratification forms based on solar input and influenced by hyporheic flow, which causes a lag time from upstream water. They determined that stratification occurs at discharge rates at $1.03 \text{ m}^3/\text{s}$, while at $1.55 \text{ m}^3/\text{s}$ it diminished. Based on sensitivity modeling, this result is based on the daily range of water temperature. Cold water enters the pool and is capped by warmer top flow. The critical discharge rate at PT pool is still needed to inform how to release stream flows to promote stratification. Since PT pool is larger, its critical discharge rate will be similarly large, with discharge scaled to pool size.

From the middle of the night until sunrise, temperature is controlled by differences in water density. If there is little difference, the water is fully mixed. But when the sun rises and the pool starts to stratify, the inlet water is warmer than the water stored in the pool. There is a slow

mixing period based on vertical diffusion and energy bleeding, which continues until shade covers the pool. At this stage, the inlet water begins to cool at the top of the pool, causing it to sink, resulting in a rapid mixing period until the pool returns to its starting state. Without stratification, the pool will release warm water downstream until stratification forms, which causes cool water to be released, resulting in the pool regulating downstream temperatures.

For PT pool, they determined the daily and vertically average temperatures at a discharge of 14 m³/s is functionally the same as at UT pool at a discharge of 1.4 m³/s, indicating UT pool is accomplishing the same temperatures as PT pools, but with 14 times less water thanks to stratification that forms in UT pool. This means that temperatures targeted for spring Chinook holding in pools may be achieved with significantly less water if discharges are lowered to promote thermal stratification in pools. Also, stratified pools provide the temperature variation needed for species thermoregulation as juveniles need warm water to influence growth and cold water to slow their metabolism and conserve energy. Buxton and Conor Shea (USFWS) will do 3D modeling on 14 additional pools to further derive the discharge rate for holding areas and estimate temperature flow throughout the river.

Naman asked if the analysis indicated the extent to which diurnal variability and discharge influenced stratification. Buxton explained air temperature and inlet water temperature had the strongest influence on stratification after discharge. These effects, however, get weaker as discharge is increased. Ott recommended looking at velocity and depth to determine those minimum factors. Buxton explained that bathymetry did have an effect on the spatial formation of stratification insofar as stratification formed with less temperature variation at a given discharge in lee areas of the flow. Ott asked if they accounted for turbidity. Buxton explained they did not since it was so low, they had to apply additional filters to remove velocity spikes in the time record of 3D velocities since there was often too few particles in the flow for the velocity meter's signal to bounce from. Lee thought the research was significant for fisheries management since most solutions focus on adding more water and this indicates potential improvements for adults and juveniles from releasing less water.

BREAK

Science Proposals

The IDT received four proposals for the FY23 science funding, which were reviewed by the SAB for approval. Prior to the solicitation, the IDT developed and ranked six topics based on key uncertainties outlined in the Science Plan. The final ranking was kept confidential from the IDT and the submitters. This ranking will be used along with the SAB's recommendations on whether to fund, not fund, or fund with revisions. The final rankings of topics were (in order):

1. What life stage of Chinook salmon limits population recovery?
2. Can selective thermal withdrawals from Lewiston Reservoir provide water temperatures prescribed for the Trinity River? Alternatively, if existing infrastructure is insufficient,

can an adjustable temperature curtain at the reservoir spillway and/or relocation of the upstream curtain provide the additional control for targets to be met?

3. How does hydrology, especially the influences of scour and inundation, affect the foodscape for juvenile salmonids?
4. What is Chinook salmon survival from egg to smolt, and/or from smolt to age-2 in ocean?
5. What are the lateral and vertical extents of the restored Trinity River valley?
6. What is the trajectory of evolution of channel rehabilitation sites relative to the physical processes that form and maintain dynamic alluvial channels?

Lee noted that Topic #2 was elevated after discussion this summer about conserving the cold-water pool. While some proposals included non-TRRP collaborators, the funds will be awarded through existing partner funding mechanisms, such as AFAs. The TMC approved \$500,000 in the FY23 budget in June.

The four proposals submitted were:

1. Fall Chinook and redd environmental conditions and egg survival to emergence in Reach 1 of the Trinity River (Topic #4)
2. Empirical modeling investigation of water management in Lewiston Reservoir for providing temperatures targeted for released to the Trinity River and hatchery (Topic #2)
3. Evolution of stream morphology and physical habitat at Trinity River rehabilitation sites, 2016 – 2022 (Topic #6).
4. Modeling hyporheic flows and linking them to macroinvertebrate populations to estimate the foodscape for rearing juveniles salmonids in the Trinity River (Topic #3)

The SAB has recommended funding proposals #2-4 and funding proposal #1 if major edits are addressed as they had concerns with the number of instrumented redds. Lee was unsure how the changes would affect the proposed project budget. However, the funding requests total around \$480,000, which could allow some room for an increase in the budget for proposal #1. Lee will have the investigators address the SAB's comments and then have the SAB review the proposals for approval.

Orcutt asked when the funding for the FY23 investigations was set at \$500,000 because he recalled the budget allocating \$250,000 for investigations and \$250,000 for the Phase II construction review. Dixon explained \$500,000 was set aside in the FY23 budget, but \$250,000 was budgeted in the FY22 budget for a similar solicitation. Orcutt added that since no one bid on Topic #1, any investigations would be out of sync without a good understanding of the limiting factors on the river. Lee agreed that the limiting factors analysis was key, but the IDT is working to improve the scoping of the question since such an analysis could use up the entire research budget. They also did not want to restrict the question for people who have been working it and have differing views on the river. The IDT intends to make it a priority for the FY24 Science Plan.

Ly asked if the TMC would be able to review the proposals. Lee will make them available soon since he only received the reviews from the SAB. Hayden asked if the unfunded topics would be carried over to FY24. Lee thought they could, but it would depend on the IDT, since the limiting factor question will be a major focus. The Science Plan does not include stipulations to elevate unfunded projects or topics to the next year, but takes a fresh look each year.

Sommer asked what would happen to the unused science funds. Dixon explained they would go towards Oregon Gulch since the TRRP cannot carryover funds. Dixon noted there was also a substantial overrun on the topographic model. The TRRP has already spent a half million on the model so finishing it this year is also a priority.

Humboldt County Proviso 2 Water Contract Planning

Hank Seeman from Humboldt County presented on the County's water contracting plan under Proviso 2 of the Trinity Division Act. Under the Act, Humboldt advocated for its interest under Proviso 2 for 50,000 AF of water. In 1959, the water was added to their permits. In 2014, the SOL affirmed that the Proviso 2 water was distinct from water provided under Proviso 1. Since then, there have been discussions on how to use the water with feedback from Reclamation to assess the consistency with water rights and water needs. In 2020, the County was awarded funds to develop a water contract plan. They are working with Stantec, the Water and Power Law Group, and Suits & Science along with assistance from USFWS and USGS with a focus on non-consumptive uses for salmonids. The County wants to develop the Plan closely with the TRRP to ensure it does not conflict with current uses and flows.

The County has held three workshops and completed a baseline conditions report describing the planning background, data synthesis, fish population limiting factors, flow regimes, and temperature patterns along with recent modifications to ROD flows and the winter flow proposal. The County is looking at a few release scenarios. (1) A fall base flow period from October to December with pulse flows to increase habitat. (2) Winter flows based on natural flows with a pulse between 6,000 to 8,000 cfs for morphological changes. (3) Pulse flows and incremental releases before April 15 and snowmelt releases to increase baseflow.

They currently have three more workshops planned and will continue to work with USFWS and USGS on modeling flow scenarios. They would like to have these scenarios included in the Reinitiation of Consultation. Bader asked about the County's meeting with Reclamation's water rights folks. Seeman met with them last week and plans to meet again in a few weeks. Groves noted the County's has not reached out to Trinity County, though they have asked for engagement. The Trinity County views the Plan as using its water without consultation. Groves asked for Humboldt County's cooperation to negotiate with them. Seeman agreed to follow-up after the TMC meeting.

Hayden asked when a draft plan was expected. The draft is anticipated by May 2023. Naman thought there could be the opportunity to join the County's Plan with the Trinity Reconsultation and recommended Seeman talk with Reclamation and their contractor. Dixon recommended the

County narrow down its proposed action among the three scenarios when including it in the reconsultation. Seeman explained the County wants flexibility in its management and is looking to creating an action that includes all three options. Sommer asked if the County was considering consumptive uses in its plan. Seeman explained they are focused on non-consumptive uses for the contract plan but are not ruling future consumptive use.

Fisheries Update

Kormos reviewed the State's fisheries update for the Klamath In-River allocations for 2022. The in-river allocation was 2,119 for adults with 350 allocated to the Upper Trinity and 349 allocated to the Lower Trinity. The Lower Klamath is the most dynamic and intensively monitored part of the river. The fishery below Hwy 101 was relatively slow with variable success while the fishery above Hwy 101 was much more active. The quota was met by September 5 and fishing was closed on September 6. Preliminary estimates from creel surveys indicate 1,279 adults against the 1,060 quota included adults harvested after the closure. Approximately 1,845 jacks were harvested in the same area. They will adjust the data with scales and the coded-wire tag data.

The Upper Klamath closed on October 6. Iron Gate to I-5 was reopened for a period in November. The Upper Trinity closed on October 22. Harvest estimates are still pending. The Lower Trinity is still open with an estimated 85 adult fish harvests from Hoopa Valley Tribe. Dixon asked if people were fishing fall Chinook at Iron Gate given the time of year. Kormos said there were some as there are people who like to fish for its own sake and others who are harvesting for roe. Additionally, Iron Gate does not open with much regularity due to low productivity and low escapement, so only a limited number of people are aware of it. Trinity Hatchery will reopen for similar reasons. The State is considering removing these "reopeners" in the Lower Klamath and working with the tribes and Northern California guides who have a vested interest in these fisheries. It is being considered since Iron Gate will be going offline and these fisheries equate to additional adult harvests that are not planned for in the available harvests between states, tribes, ocean, and river fisheries. At Trinity, the hatchery will be operated as an integrated program in the future to decrease the value between hatchery and natural fish when evaluating stock health. Dixon asked, as a member, if someone from CDFW would present this information to the Trinity County Fish and Game Advisory Commission. Kormos will coordinate their report since they have just started outreach on the post-dam regulations in anticipation of dam removals.

Orcutt noted the Hoopa Valley Tribe and CDFW redirected the TRRP to fund the creel surveys for the Lower Klamath and Lower Trinity, which provide harvest estimates for non-tribal harvesting below the weir. This information is part of a bigger process for the annual estimate and hindcasting to determine how well management objectives were met. The work is complex and has been refined over the years.

Ly asked what portion of the natural origin broodstock (NOB) they were targeting. Kormos explained the goals and objectives for fall Chinook have not yet been defined but will be consisted with the other NOBs at a minimum of 10%. However, he advised taking the number

with a grain of salt as there is a difference between the minimum, the ideal, and what's achievable. CDFW is looking to the future and trying to move the hatchery towards a fully integrated program where the hatchery is not surplus.

Adjourn for Day 1 3:55 pm

Day 2, December 8, 2022, 9:00am

Comments on Non-Agenda Items

No comments were submitted.

Refinements Update

The Program Document and Science Plan are in their final versions and being reviewed by the Solicitors. Reclamation does not expect many comments as they Solicitors are aware of the status of the documents. Once Reclamation receives their comments, the Regional Directors will review them. The effort was started in 2014 at the request of Hoopa Valley and Yurok Tribes, who met with the USFWS and Reclamation Regional Directors to request an independent review of the TRRP. The original assessment was done by Headwaters with recommendations for the Regional Directors to consider, most of which have been included in the Program Document. However, the Program Document is not 100% complete and the recommendations do not mean that things will change. Bader viewed the document as a Reclamation and USFWS document, not a TRRP one. The TMC will not vote to submit it based on the original plan given to the Regional Directors. Bader anticipates feedback from the Regional Directors by the end of January or February and that they will recommend moving forward with the changes. The Science Plan will get implemented. The Program Document still has some changes that will be brought back to the TMC for consideration, such as the voting and other bylaw changes. The TMC will see the final version and Chad did note areas of disagreement for the Regional Directors.

Ott asked if the TMC would vote in the spring. Bader explained they will vote on some things but asked the TMC to review the documents and bylaw updates first. While the Program Document has recommendations on what to change, their inclusion does not necessarily mean they will change. They still need to be decided by the TMC. The Program Document will be most useful for new employees to give them an idea of what the TRRP is and what it does. The Science Plan has added value to the TRRP end products by better defining the monitoring work. Bader appreciated the work the TMC and others contributed to both documents.

Ly asked about the prognosis on the proposed voting structure changes. Bader recommended raising them at the next TMC meeting if people want it addressed. The Regional Directors will not unilaterally change anything the TMC should consider. The Program Document Drafting Committee did make edits to the bylaws but they have not been adopted formally. Most will be simple to accept but the TMC will need to vote on them.

TRRP Survey

Dixon conducted a survey of TRRP staff, partners, and TMC members following the cancellation of the September TMC meeting. He wanted to gauge Program morale after noting disgruntlement and disillusionment among staff. The survey results were grouped by question, ratings, and then associated comments. The survey is intended to gauge how well staff think the Program is reaching the public and if there were things they could address. Comments were given candidly and anonymously, noting that some were very critical. The survey included 33 individual respondents; 45% were from technical work group staff, 25% were core TRRP staff, and 30% were from TMC members, both primary and secondary representatives. The comments have not been attributed to any specific Program or agency and are presented unedited. Dixon reviewed each question and noted highlighted key comments he wanted the TMC to be aware of.

The first question indicated that people still find value in the Program. Dixon noted the first comment, which reflected multiple comments that the TMC representatives could do a better job engaging and keeping their staff informed. Another commenter felt there was a subset in the TRRP that was complacent, resulting in uphill battles to change their approach.

The second question indicated that over half felt like they were on a team but it did not take into account how much of each person's time was spent on restoration work, which could affect how they viewed their participation. One comment noted that some team members work in a vacuum, which could mean folks are delivering products but not being asked into the conversation. Dixon recommended improving communication with staff.

On the issue of respect, the Program is doing well with the majority in agreement and a few neutral. Dixon was surprised by one comment on the conflict between Reclamation and USFWS. The two agencies have had their ups and downs over time, but Dixon felt they were in a good place at the moment. He was concerned that someone felt there were still issues to address. Another comment noted that some TMC members are rude to participants and reminded members to be respectful of their peers and to respect everyone's time.

The next set of question indicated that over 87% agreed that the TRRP is responsive, but Dixon was concerned about those in the middle and people who may think Program staff are not approachable. However, Dixon acknowledged that while he had little control on turnover, he could make sure people are available to address questions or concerns during those periods. With regard to TRRP leaders, most agreed that leadership represented the broad partnership, except for two respondents. Dixon was concerned about a comment that staff were part of the Program for themselves or Reclamation. He asked for more feedback and explained he and other partners look for money to restore pre-dam salmon. That effort is a steep uphill climb and he is willing to look for money that will help the Program achieve that goal and to achieve the goals of the other partners as well.

On the TMC, Dixon noted the responses were likely a product of the September meeting and reflect other concerns that they've had for a while. Dixon asked TMC members to remain

focused on the TRRP's goals. People have frustrations and if the TMC made a vocal and visible effort to address them, some can be mitigated. Dixon highlighted one comment that reflected several themes that some TMC members prioritize their personal or agency interests over those of the TRRP. The TMC is part of the effort to restore salmon to all the agencies' fisheries.

On Program communication, most people thought the TRRP did a good job of communicating, but five disagreed and seven were neutral. This indicates the Program needs to improve communication as a significant minority feels left out. He suggested using his quarterly report to convey information to the broader program. DeJulio suggested including the work groups on the distribution list for the Executive Director and IBC report since they often don't review them.

On Program effectiveness, Dixon noted the question could be viewed as one of patience over time or one of efficacy. Dixon had intended to evaluate whether the Program was on track or not. Most comments expressed frustration with a lack of progress on flow scheduling. Other comments were on how much time has been spent adjusting the objectives and targets for function and structure given how focused the program is on fish. While the TRRP looks at returns of adult fish, there is a lot more they accomplish and measure along the way. The Program has done a ton of work towards a challenging goal and dramatically increased capacity and improved the function of the river. One comment described the Program as a total failure, to which Dixon asked that the respondent re-evaluate why they were there. Naman noted that salmon runs on the Trinity were degraded over a 150-year period starting with the gold rush. The value of the resources extracted from the basin were significant (billions). It will take a long time to put the river back together and more time and energy to fix the river ecosystem than it did to dismantle it. Persistence, time, energy, and a lot of money are needed to address the issue. Gogan noted he did not make the comment.

On the utility of the restoration tools used by the Program, one comment about the impact of climate change on fisheries was reflective of the Refinements process. While the goal cannot be changed individually because of the ROD, the Program can do a better job articulating its progress with the other accomplishments to show they are effective. Another comment was on the need to move more rocks, including in areas with completed projects. Dixon noted the Program has pushed back on revisiting older sites until they complete the original 47 sites. The completion of the sites along with the Phase II review will inform what to reconsider when the sites are revisited.

The final question indicated that most agreed that resources were used strategically. People largely think the Program puts its money where its mouth is for the right reasons. There were a few outlier comments regarding agencies advocating for themselves, but Dixon saw it as a reminder that there will continue to be a perception that there are conflicts of interest for some agencies. He advised keeping the partnership in mind and making sure the Program knows why a project is important to it.

Sommer thanked Dixon for conducting the survey, noting a USFWS's expression that feedback is a gift. While it may not be easy to receive, it can help address issues that are affecting the

Program. She noted that USFWS and Reclamation have worked hard to strengthen and repair the rifts while working in a positive direction. If folks feel there are still issues, she asked they let her and Bader know since she would like to work on them for the Program's benefit. She advised Dixon to send a note to the respondents to let them know the TMC heard them and is addressing the concerns. Ott thought the survey was a stand-up move and showed Dixon cared about the success of the Program and thanked those that responded.

Ly asked if there were plans to facilitate discussion among interested parties. Dixon recommended using a facilitator if there are specific decisions to address. Ly recommended a focused discussion on desired outcomes and solutions to improve the negative comments.

Kormos recommended addressing his concerns about codifying the roles, responsibilities, and expectations of the TMC to DOI. The effort would facilitate better and more productive TMC decision-making since it is unclear what authority the TMC has to set its own agenda and make recommendations to DOI, based on the best available science like other advisory bodies around the world. He has worked with other commissions and management groups to make recommendations where similar upper-level controls do not exist. Such controls erode the function, form, and faith partners have on those groups. Kormos believed it was necessary to prevent future dysfunction within the TMC. He did not begrudge any TMC agency exercising its authority to resolve disputes but saw it as a problem when the TMC's agenda and ability to consider items is unilaterally controlled.

Kormos was concerned that Reclamation did not respond to requests for feedback in September. Kormos recommended the TMC having someone with decision-making authority meet and address how the TMC operates to improve communication. He echoed Orcutt's concerns about requests he made to DOI on its change in flow management requirements.

Naman added he was uncertain why the Flow work group needed the TMC to approve the hydrograph and the flows releases, as these are science-based decisions, when the TMC are better suited to address budgetary, administrative, and policy level concerns. He thought the release schedule decisions should be made at the work group level with the Flow work group informing the TMC of their decision. He thought requiring the TMC approval for science-based flow decisions muddled the waters on whether the TRRP can or should implement a science-based decision. Overall determining what decisions the TMC should make and which can be addressed at the work group level would benefit the Program.

Kormos wanted the TMC to consider sending a letter to DOI or the Regional Directors requesting engagement with the TMC to respond to its concerns about the form and function of the TMC and how to codify its authority to improve the Refinements process and the resulting Program Document and bylaw updates. Bader recommended including a cover letter when they send the Regional Directors the Program Document. However, if Bader went to DOI with the request, he would not get a response since the Regional Directors need something to respond to. After they review the documents, Bader hoped they could engage the Regional Directors but noted it would only be appropriate for his boss to reach out to them. Kormos was not opposed to

the proposal but thought the letter needed to be clear the TMC did not consider the Program Document complete or functional until the items are clarified. Without them, the State of California cannot support the documents. While the TMC has relied on its federal members to communicate on its behalf to DOI, there appear to be conversations and institutional and hierarchical issues that impede discussions. Without direct interaction with the TMC, those who do not work for DOI cannot have meaningful discussions about needed changes.

DeJulio agreed and thought the Program Document was a natural point of interaction for the Regional Directors or higher level DOI staff to interact with the TMC. Regarding Naman's concern about the flow schedule, he noted that vague items in the ROD and the foundational document led to adjustments on the fly. When the hydrographs started changing from the ROD, no one knew how they changed and why. Clarifying the role of the TMC can clarify what decisions the TMC makes to avoid such discrepancies. Bader noted he did not question a report from a work group, but the flow schedule is brought to the TMC because both Regional Directors need to approve them. Neither have gotten into the details of the recommendations as they trust what the TMC sends them. Naman recommended having the work group make the recommendation and then report to the TMC rather than having the TMC vote on it. On the voting structure, Naman thought the structure may look different in ten years and the TMC probably should not vote on the flow schedule.

DeJulio noted similar TMC decisions to reorder the watershed projects. The decision-making process for implementation may not be best served when run through TMC. Dixon noted the watershed issue was taken away after TRRP discovered it was violating its own acquisition rules. DeJulio added the TRRP needed guidance on the bounds of its flow recommendations since DOI determines the level of environmental coverage. Naman agreed noting that the original guidance on the flow schedule was confusing until they were told in 2021 they had coverage, noting there may not be consensus within DOI on the bounds of the flows. The TRRP needs to know in writing what the bounds are and when they start since it affects what recommendations they can make.

Sommer recommended exploring other pathways to engage DOI by having the TMC either draft a letter collectively with its concerns or as individual organizations to ensure they are outlined clearly. However she was unsure how to get the kind of communication Kormos was requesting. DeJulio felt the TMC often relied on its DOI partners to provide that information.

Kormos asked the TMC to consider a letter to get a response from the Regional Directors. He understood the letter would take some discussion to arrive on an agreed upon message. He thought his request was simple and focused as they were asking to meet with DOI to express their concerns and to codify the authority of the TMC in service to DOI. While he was supportive of the approach proposed by Bader, he preferred to withhold the documents until there were conversations on how to resolve the outstanding issues. He did not think it was unusual for management councils to meet with authority figures. DeJulio noted TMC did not have the authority to withhold the document since they were Reclamation products. Kormos

noted the TMC had not endorsed the documents despite Reclamation considering them complete. Kormos thought a letter with the document could further allow DOI to ignore the request from the TMC since they had no responsibility to respond or improve how the TMC functions.

Ly agreed with Kormos that the original process was to have the TMC vote on the documents in September, which changes the involvement of the Regional Directors. While Kormos asked to wait on the motion until all members have had a chance to weigh in, Ly thought time was of the essence and the TMC could make a motion to write the letter but not send it until the letter is in its final version with feedback from all members. Kormos appreciated the support on how the vote on the documents had shifted, but asked if Ly was conceding on whether the TMC should be able to approve them.

Sommer asked what the path forward would be if the TMC did not approve the documents. Kormos thought it strengthened the TMC's position on their concerns with the documents. Sommer thought this was the one and only opportunity the TMC had to codify its authority and service to the DOI but thought the process was being rushed and not considering some TMC member perspectives. She thought a letter could go a long way toward a resolution. However, not considering the documents as originally planned erodes the role and utility of the TMC, which has come to a head with discussion on the voting structure and winter flow variability. While Kormos' comments were put at the top of Chad Smith's cover letter to the Regional Directors, Ott noted they appear as one opinion, while a letter from the TMC would have more weight. Kormos noted the documents were previously on the agenda for TMC consideration, but currently there is no clear path to finalization. The TMC needs clarity on whether to submit a letter with the documents outlining its concerns and how the documents will be finalized with or without TMC approval.

Kormos made a motion that the TMC, with assistance from TRRP staff, draft a letter to DOI Regional Directors that makes clear that the Program Document and bylaws are insufficient and incomplete at this time due to a lack of codified authority for the TMC in service to DOI to set its own agenda and make recommendations consistent with the best available science, restoration, and resource management. Further, the letter will request direct engagement from DOI at a future TMC meeting to respond to these concerns verbally and to provide an opportunity for direct communication with TMC membership.

DeJuilio seconded the motion.

Sommer asked if the DOI Regional Directors included the Bureau of Indian Affairs since the agency was part of some of the recent events at the TMC. Kormos explained his intent was to engage all those with authority to develop a resolution. He thought the federal TMC members could provide that guidance. Sommer recommended including all three Regional Directors given the concerns generated from the discussion. DeJuilio added that Regional Directors may be presumptive and recommended adding officials as the direction may not come from the Regional Directors. Ly noted the Reclamation and USFWS Regional Directors approve the flows and have the most discretion, while the BIA Regional Director is engaged when there are concerns from

Hoopa Valley and Yurok Tribes. Kormos' intent was to be as comprehensive as possible and to include all relevant Regional Directors. Dixon noted the bylaws states that issues can be elevated with the Secretary of the Interior.

Ly made a friendly amendment to include all three DOI Regional Directors (Bureau of Indian Affairs, Bureau of Reclamation, and US FWS).

Kormos and DeJulio approved the amendment.

Bader asked Kormos to clarify the part on setting the agenda. Kormos explained the TMC should have the authority to create its own agenda, make motions, and vote based on its discretion. Alvarez asked how the letter would be finalized. Kormos explained the TMC would develop the letter, then review and approve it through an offline iterative process. The letter would be approved at a future meeting and signed by the Chair. Ly asked how dissenting opinions would be captured in the letter. Kormos explained the letter would capture the core content of the motion and include ancillary language for discussion. Bader noted the letter was not similar to the one he originally recommended.

Kormos thought it was a conflict of interest that there are limits on what federal TMC members can and cannot ask and the letter would be a request of the TMC rather than the federal representatives. Sommer suggested the letter outline the concerns and then request DOI feedback to better facilitate a response. Bader was fine moving forward with the concerns people had but could not direct leadership. Additionally, when administrations change, so does guidance, which was what happened with the winter flow EA. Bader reiterated the TMC is not completely non-functioning and provides good value. He recommended the TMC address them and move forward. Kormos explained the shifting guidance is what leads to ambiguity in the documents and the ROD. He wanted to ensure that what happened in September does not happen again.

Ly asked if Kormos was open to a written response. Kormos explained the verbal request ensured meaningful communication, but a written response would be better than nothing. His intent is to have resolution on the concerns and right now he did not have faith it would happen without more forceful and meaningful engagement.

Ly made a friendly amendment that “Alternatively or in addition, the TMC requests that DOI leadership respond in writing.”

Kormos and DeJulio approved the amendment.

The motion passed with six votes in favor, one abstention, and one vote against. Reclamation abstained and Hoopa Valley Tribe voted against.

BREAK

Science Advisory Board

Lee plans to restaff the Science Advisory Board over the next year. The SAB has been short on members for several years but the Refinements process has provided direction to address its

composition and duties. Since this was not one of the contentious parts of the Program Document or the Science Plan, the TRRP will move forward with the updated SAB charter.

The SAB works for the TMC, with the Science Coordinator facilitating communication. Thus, the TMC can ask a member of the SAB to weigh in on items in the science program. For example, the SAB guided the Phase I review and provided input on science work plans and the winter flow white paper. They are impartial experts in their fields and their longevity puts the Program's science questions in a better context. While they currently review investigation plans, they can provide a lot of guidance and input to the TRRP.

There are currently two SAB members: John Buffington and Andrew Paul. Both are due to end their roles, but Lee would like to keep them on, so they overlap with new members for another year. Currently the SAB needs members with expertise in aquatic ecology, riparian/watershed ecology, and hydraulic engineer/hydrology. The SAB charter outlines the SAB appointment procedure. The TMC can recommend members through the selection panel. The TMC will select the panel, which Lee recommended using the core members of the IDT as they are active and involved in the Program.

Lee plans to convene the selection committee in January to finalize the position descriptions, produce and distribute the posting, and finalize the timeline for recommending new members. Lee intends to not restrict recruiting by using all three contracting vehicles, all with varying time frames and requirements. Interagency Agreements can be used for existing federal employees. A Notice of Funding Opportunity can be used for non-federal partners or non-profits but only federal partners could make the selection. Lee recommended having the selection committee comprised of IDT members who would provide input on the selection. Finally, a sole-source contract can be used for those outside the US or when working with for-profit organizations. It would take the longest, but it is feasible to use for those working on the SAB.

Ott asked if members were compensated and what their work loads are. Lee explained their workload can shift. Currently it is light, but the SAB did a lot of work during the Phase I review. Members serve a three-year term, but for contracting it can sometimes be up to 5 years. John Buffington has been on the SAB for ten years while Andy Paul has been on since 2016. While longevity is good, they do want rotation. Members are compensated around \$30,000 based on set-aside funds in the FY23 budget.

DeJulio asked if existing members would stay on as long as they chose or if they would be sunset at some point. Lee would like the existing members to stay on for another year or two and potentially have them serve as Chair. Once the SAB is fully staffed and running, they would transition off and they would look for new members to replace them. Lee will look for recommendations from the TMC in the upcoming months.

TRRP-Funded Watershed Restoration Projects

Alvarez reviewed the work done by the Hoopa Valley Tribe for the Supply Creek Restoration Site. The TRRP funded the removal of a berm as part of Phase 3.5 of the project, which was

completed over a seven-year period. The Creek lies between the Tribal headquarters and the elementary school, giving it lots of community visibility.

Abel reviewed several projects recently funded by the TRRP watershed grant program. They include:

- Browns Creek Storage and Forbearance to restore instream flows by having private landowner agreements that limit when they can store water based on water year determinations and time of year.
- Mainstem and South Fork Trinity River Road Decommissioning by the Trinity County Resource Conservation District.
- Weaver Creek Restoration Planning, which is in the design phase and aimed at allowing the creek channel to meander and increase its wetted area.
- Five Counties Salmonid Conservation Plan, which was on hold during COVID but now restarting again.
- Brown Bear Mine and Deadwood Creek Post-Carr Fire sediment reduction to install barriers and elements to reduce post-fire sedimentation.
- East Weaver Creek Dam Removal, where they recently installed a new water intake which will be monitored for a year before the dam is removed.
- East Branch East Weaver Migration Barrier on East Weaver Creek Road
- Oregon Street Migration Barrier Repairs in Downtown Weaverville, where the design has been completed.
- Manzanita Creek Dam Removal, which they are currently waiting on the USFS to select its dam removal alternative while removing hazard trees and re-accessing the site.
- Sidney Gulch on USFS and Lower Lee Fong Park, which used funds to develop the design.

This year, NFWF has joined the TRRP's funds with the Klamath Basin grant program and the NRCS, resulting in a total investment of \$972,000 for restoration work. Abel asked TMC members to appoint members to the Review Committee. Ly asked if NOAA would still be on the review committee as they were not listed in the presentation. Abel said they were and would have two staff, with their scores averaged.

Election of new Chair and Vice-Chair

Tanya Sommer was elected Chair of the TMC for 2023-2024. With a tie for second place, Bader volunteered to serve as Vice Chair after Ly requested to step down after serving as Chair for three of the past four years.

Topics for March TMC Meeting

- Field trip to Oregon Gulch and/or Chapman Ranch (proposed by Dixon)
- TMC voting structure and the DOI's decision to remove it unilaterally and a potential response to the TMC's discussion following the September meeting cancellation (requested by Kormos)

- Vote on updating the bylaws (proposed by Ly), including a review of Section 401 that requires the Chair to be a federal employee.
- Discussion or adoption of non-controversial parts of the Science Plan (requested by Ly)
- Update on the CVP and TRD Reconsultation (requested by DeJulio)
- Discussion on whether the TMC can and will approve the Program Document (requested by Kormos and Ly)
- Hydrograph for the spring release (proposed by Naman)
- Sediment augmentation plan for the year for high flows
- Presentation on the run and scale forecasts (requested by DeJulio as Alvarez said they could have preliminary information by then).

Meeting Dates for 2023

Bader proposing duplicating the same schedule from 2022 for the TMC. All agency will prioritize having their primaries and secondaries attend, but there is also the option for a third staff person. Bader will review the schedule to ensure the dates do not fall on any holidays. The schedule for quarterly meetings will be:

- March in Weaverville (TRRP hosts)
- June in Arcata (USFWS hosts)
- September in Weitchpec (Yurok Tribe hosts)
- December in Redding (USFS hosts)

Monthly calls will take place on the third Thursday of the remaining months.

Sommer acknowledged the contributions of Nick Hetrick, who will retire in February. She thanked him for his service to the TRRP and his dedication as a professional restoration advocate. Ly thanked Hetrick for his coordination work.

Adjourn Day 2 at 1:10 pm.