

Final Minutes

TRINITY MANAGEMENT COUNCIL

September 11-12, 2019
Yurok Tribe Weitchpec Office
CA-96, Weitchpec, CA

Day 1, September 9, 2018 9:00am

Attending Members

Member	Representative Seat
Justin Ly	National Marine Fisheries Service, Chair
Dan Everson	U.S. Fish and Wildlife Service, Vice-Chair
Don Bader ¹	Bureau of Reclamation
Michael Dixon	Trinity River Restoration Program, Executive Director
Mike Orcutt ²	Hoop Valley Tribe
Teresa Connor	California Department of Water Resources
Dave Hillemeier	Yurok Tribe
Bill Brock ³	U.S. Forest Service
Keith Groves	Trinity County

¹Alternate Elizabeth Hadley sat during second half of Day 1 and for all of Day 2

²Absent during Day 1.

³Absent during second half of Day 2. Attended by phone.

Other in attendance: Eric Peterson (TRRP), Kathy Martens (TRRP), Kyle DeJuilio (Yurok), Ken Lindke (CDFW), Robert Franklin (Fishwater Consulting), Elizabeth Hadley (Reclamation), Todd Buxton (Reclamation), Bill Pinnix (USFWS), Nick Som (USFWS), Regina Chichizola (Save California Salmon), EB Dougan (former TAMWG member), Tony LaBanca (CDFW), Seth Naman (NMFS), Steve Gough (USFWS)

Attending by Phone: Leslie Bryan (REU), Scott McBain, Wes Smith, John Bair (McBain Associates), Tom Stokely, Bill Brock (USFS), Dave Mooney (Reclamation)

Notes: Sabrina Kleinman (EPP)

List of Motions

Keith Groves made a motion to accept the meeting agenda.

Don Bader seconded the motion.

The motion passed unanimously.

Keith Groves made a motion to approve the June TMC meeting minutes.

Teresa Connor seconded the motion.

The motion passed unanimously.

Dave Hillemeier made a motion that the TMC conceptually approves of the SOW for the Refinements Coordinator contract as presented during the meeting, noting that additional details associated with the contract would be worked out with the Refinements Coordination committee informally over the next two weeks (prior to submitting to BOR contracting).

Elizabeth Hadley seconded with a friendly amendment to add Refinements Coordinator and Refinements Coordination Team to the text.

Mike Orcutt made a friendly amendment that the TMC conceptually approve the SOW and have approval of the final SOW at the September Refinements Meeting.

Dave Hillemeier made a motion to table to discussion on the scope of work for the Refinements Coordinator until after lunch during Day 1.

Elizabeth Hadley seconded the motion.

The motion passed unanimously.

Keith Groves made a motion to use the Contract method for a Refinements Coordinator as recommended by the Executive Director and direct him to use the option task method as discussed to give as much flexibility as possible.

Teresa Connors seconded the motion.

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

Mike Orcutt made a motion to amend Section 300 of the bylaws to the following:
Section 300 – As future circumstances warrant, additional entities may be added to the TMC by unanimous vote of the TMC (8 of 8 TMC members) as described in Section 603.

Dan Everson seconded the motion.

Teresa Connor offered a friendly amendment to change “of the TMC” to “all active voting TMC members.” Mike Orcutt and Dan Everson accepted the amendment.
The motion passed unanimously.

Dan Everson made a motion to correct the typo in Section 600(e) to take out the extraneous “a” before “the next quarterly meeting.”

Elizabeth Hadley seconded.

The motion passed unanimously.

Dave Hillemeier made a motion to amend Section 600(d) to the following:

Section 600(d)- All regularly scheduled *and special meetings* of the TMC shall be open to the public, *except executive sessions. Executive sessions shall be comprised of one representative per TMC entity and invitees of the Chair of the TMC. Executive sessions shall be limited to issues related to contracts, personnel, or legal matters.*

Mike Orcutt offered a friendly amendment to add “or other sensitive matters as determined by the Chair.” Dave Hillemeier accepted the amendment.

Dan Everson seconded the motion.

The motion passed with 7 votes in favor and one vote opposed. Trinity County opposed.

Dave Hillemeier made a motion to amend Section 608 to add “Minutes shall not be recorded during executive closed sessions.

Justin Ly seconded the motion

The motion passed with 7 votes in favor and one vote opposed. Hoopa Valley Tribe opposed the motion.

Dave Hillemeier made a motion that the TMC conceptually approves of the scope of work for the coordinator contract as presented during Day 1 and that additional details associated with the contract will be worked out with the Coordination Committee informally over the next two weeks (prior to submitting to BOR contracting)

Elizabeth Hadley, seconded the motion amendment to add the word “Refinements” to Coordinator and Coordination Committee. Dave Hillemeier accepted the amendment.

Mike Orcutt offered the friendly amendment regarding the conceptual approval of the scope of work and to have approval at the September Refinements Meeting, replacing “over the next two weeks: with “at Sept 23-24 Refinements Meeting.”

Dave Hillemeier and Elizabeth Hadley accepted the amendment.

The motion passed unanimously.

Action Items from the Meeting

- Don Bader will follow-up on the status of the memo to the CVO on how to implement safety of dams and flow releases to benefit fisheries.
- Don Bader will coordinate with Reclamation engineers to give the TMC a presentation on construction and policy options at Lewiston dam for the December TMC meeting.
- Don Bader will check on when the draft biological opinion for the ROC on LTO for CVP will be released for tribal review.
- Dan Everson and Nick Som will look into how the Fish and Wildlife Service has done their peer reviews for the Synthesis Reports.
- Mike Dixon, Eric Peterson, and Nick Som will discuss potential options for outside peer reviews for the synthesis reports.
- Dan Everson will research whether the Udall Foundation can perform the role of the Refinements Coordinator based on the scope of work.

Regular Business

Welcome and Introductions

Justin Ly, NOAA NMFS (Chair) opened the meeting at 9:09am with introductions of all council members and meeting attendees. The meeting start time was delayed due lack of quorum.

Approval of Agenda

Mike Dixon opened discussion on the agenda, noting that the agenda had changed from the one originally sent via email due to adjustments in availability for the synthesis report presenters. Dixon noted the potential need for Seth Naman to present the Program Goals and Fundamental Objectives before lunch to allow enough time for the Yurok staff to prepare lunch for the meeting. Seth Naman agreed. Keith Groves asked why the decision about including the Redding

and Trinity utility companies as members was not included. Dixon and Ly explained that the agenda item had been moved to the December TMC meeting after discussion during the previous month's teleconference.

Keith Groves made a motion to accept the meeting agenda.

Don Bader seconded the motion.

The motion passed unanimously

Don Bader took a moment to recognize Mike Dixon's official role as the Executive Director for the Trinity River Restoration Program.

Seth Naman asked if there would be a break during the morning session. Dixon suggested adding a break after Dave Mooney's presentation the CVP EIS/EIR.

Approval of June TMC Meeting Minutes

Justin Ly opened discussion on the June TMC Meeting Minutes.

Keith Groves made a motion to approve the June TMC meeting minutes.

Teresa Connor seconded the motion.

The motion passed unanimously.

Review of June TMC Action Items

Justin Ly reviewed the list of action items from the June TMC meeting. Most of the items were completed, however two items assigned to Paul Zedonis were unknown. The first was to check on the status of the TMC memo to the CVO on the safety of dams and flow releases to benefit fisheries. The second was about having Reclamation engineers give a presentation about construction and policy alternatives for operations at Lewiston Dam. Don Bader agreed to follow-up on the memo to the CVO and to schedule the engineer presentation for the December meeting. He noted that they had been unable to get information from them on the topic.

- Don Bader will follow-up on the status of the memo to the CVO on how to implement safety of dams and flow releases to benefit fisheries.
- Don Bader will coordinate with Reclamation engineers to give the TMC a presentation on construction and policy options at Lewiston dam for the December TMC meeting.

In a follow-up to the other items, the TMC will consider next steps for how to address public involvement at special TMC meetings during the next TMC teleconference. Ly also reported that Jack Schmidt is tentatively interested in helping with the Refinements process depending on the details.

CVP Operations Update

Don Bader provided an update on CVP operations. Both Shasta and Trinity Reservoirs are at record highs with good storage for the winter. Reclamation anticipates that if there is early rain, they would be able to conduct flood operations similar to this past year, which is more likely in Shasta than in Trinity, but will depend on other dynamics in the basin.

Bader reported that the CVO reconsultation of CVP operation was originally due at the end of July but extended, and the biological opinion is planned for completion by NMFS and USFWS at the end of September. These dates will allow time to get new operation and allocations planned for the next year, with allocations anticipation in mid-February.

Bader reported that there are technical calls scheduled for the Lower Klamath on whether to supplement flows, but so far there has been no need. Hoopa boat dance flows added more water and brought temperatures down. The team is actively monitoring the Lower Klamath and are anticipating an end to the need for supplemental flows.

Bader announced that Jeff Rieker was leaving the CVO office and moving to Colorado at the end of the week. Kristen White would be interim manager and Reclamation is hoping to fill the position quickly.

Keith Groves asked if there had been an update on the 50,000 acre feet of water for Humboldt County. Bader answered that they requested a plan from Humboldt County but hadn't heard back.

Robert Franklin asked if there was a draft or portions of the draft biological opinion available for review as some had been released to water users and one had not been sent to Hoopa. Bader agreed to check on the details of the draft, but believed that under the WIIN Act, Services were required to provide water users with an opportunity for input, but was not sure about tribes. Bader agreed to ask during Dave Mooney's presentation that morning on the reconsultation.

Public Forum

No comments were submitted.

Report from the Executive Director

Mike Dixon reported that the Program had completed a majority of work at Chapman Ranch and anticipate construction would be out of the river by the weekend. He noted that one of the major accomplishments for the project was it's 100% use of tribal equipment operators, which pulled a large amount of labor from the Yurok and Hoopa Valley tribes. The Program anticipates that the site will change dramatically once the water hits it. They are eager to see what it does. Dixon noted that he had previously suggested a visit to the site during the upcoming Refinements meeting, but due to the last-minute change in venue, that is no longer likely as the meeting is now in Keswick.

Organizational Updates

Mike Dixon was recently selected as the new Program Executive Director, which opened the Implementation Branch Chief position. The paperwork has been submitted for recruitment, but they do not anticipate it being filled quickly. The Science Coordinator position closed last week and they anticipate a certification list in the next week. They will use a similar process for the Coordinator as they did for the Executive Director, with DOI conducting an internal review and inviting the TMC during the second round of reviews for interviews in October. In the interim, Eric Peterson is serving as Acting Science Coordinator until November. Due to work loads, Nick

Som is coordinating the work groups to refine their objectives and targets. Nick is also facilitating peer reviews for Reclamation products. For the Implementation Branch Chief, Logan Negherbon and Brandt Gutermuth have been splitting the detail, with Logan currently in the position.

Three other positions are currently open in the Program: the geomorphologist and two civil engineering tech position. These are still in the recruitment queue with little chance of them flying soon.

The first synthesis report has been submitted for peer review with eight others scheduled for review by the end of the month or quarter. Dixon noted that the initial findings presentations giving during the TMC meeting will not be posted on the website in the interest of scientific integrity as they are still in the peer review process.

The Science Advisory Board will hold its three members until FY20, when the recruitment of new members is needed. Dixon noted that they ran into contracting issues and were unable to extend Chris Jordan's contract, so he is now working as a volunteer.

Implementation Updates

There was a containment breach at Chapman Ranch that resulted in a turbidity limit exceedance by 100% and some public concern. However, no other exceedances were reported except for those associated with the boat dance flows. Reclamation is currently in talks with Acquisitions and Realty about the Junction City House project. The Solicitor is hesitant to issue a grant as Reclamation needs to justify the public benefit for improving the property. There have been recommendations to purchase the property, which will require bids on the house so it can be moved. The homeowner is still interested in elevating the house. Reclamation is evaluating its options. Hillemeier asked how much money is currently set aside for the house. Dixon reported that \$500,000 was originally set aside but was now at \$200,000 based on bids closer to that cost.

The Program anticipates a draft FONSI for the Dutch Creek Channel Rehabilitation Project and will post the draft for the formal objection period this month. They anticipate signing in November, with the project on-track to start next summer.

The Program currently has 60% design plans for Sky Ranch and Oregon Gulch Channel Rehabilitation Projects. Sky Ranch is a little further along and the teams are working on where to place the spoils for the Oregon Gulch project before they can start the NEPA process. The Sky Ranch NEPA process will take place in FY20. They are looking at a land exchange with BLM and noted that the project is on public utilities district land.

The Program conducted the kick-off meeting for the Evans Bar Project. Dr. Conor Shea will be providing assistance for the geomorphology, though he was unable to attend the meeting. The Program is also meeting with Hoopa Valley Tribe to figure out the Upper Conner Creek project. The Program is looking for the HVT design team to provide support for revisions as part of the NEPA process.

There has been some back and forth with the contractor about the biological assessment but anticipate consultation will start soon. The Program is close to reinitiating consultations with NMFS and will revise the document iteratively for non-flow related actions while providing programmatic coverage for the watershed.

Dixon reviewed some of the upcoming public outreach events and added that the Salmon Festival, which was not included in the Executive Director's memo, is scheduled for October 12.

Budget

Dixon reviewed updates to the budget noting that unspent money was shifted to two previously authorized line items: \$100,000 each was added to large wood and gravel projects.

Approximately \$68,500 was added to the Chapman Ranch project to account for a road paving project that wasn't scoped originally. This money was added as a modification to the Yurok tribe in response to mitigation required by the County.

For the FY20 budget, Dixon noted that there is about \$600,000K of unspent funds, but much of that money may be needed to help pay for current unfilled positions and potential relocation fees. Dixon did note that some of this funding, though, could be used to fund the Refinements Coordinator task. He did ask the TMC to wait on making any adjustments on the budget beyond those related to hiring a refinements coordinator.

Work Group Updates

James Lee provided an update on the Riparian and Aquatic Ecology Work Group, which met twice since the summer to work on the objectives, targets, and metrics refinements. The group identified four overarching objectives and compared them to the existing IAP objectives. The group developed targets for them and completed a preliminary analysis. The group has also been preparing the riparian encroachment synthesis report.

Ken Lindke gave an update on the Fish Work Group, which met once during the last quarter. The group focused on the objective and target refinements. Four of the sub-groups developed targets for means objectives that currently do not have targets. The group hopes to have reviewed and finalized the targets at their next meeting. The group provided an opinion on dredging in Hamilton Ponds. They were consulted due to sediment inputs in the Trinity from the Carr Fire. However, the Fish WG decided to defer to the Physical WG for the short-term due to management of sediment inputs for lamprey and Coho and will revisit for long-term planning. The Fish Work Group is working on their synthesis reports, which will have drafts for the adult spawning and juvenile reports ready for the peer review this month. Finally, the group is working on a revised timeline for the cohort reconstruction project after receiving a model from the CDFW ocean salmon project for the Klamath Basin.

Hillemeier asked if the fires filled up the ponds. Dixon clarified that sediment had deposited in the upper ponds and Todd Buxton explained that while the upper pond was filled this past year, sediment is still routing through the system that hasn't arrived yet and the team is not sure what to expect from the watershed in the coming years. He added that they are looking at the fine

sediment report to try to assess it. Downstream, fine sediment is pretty healthy and in the Lewiston reach, there are episodic inputs of fine sediments that fill the bed and empty during flow releases and augmentations. They are looking into a recommendation for the future so that when Deadwood Creek doesn't get a lot of input, the upper river can be augmented with fine sediment. There is opinion in the Program that they may be allowed in the Spring to route fine sediments, allowing Grass Valley Creek sediments to flow through. Seth Naman added that another issue is that the flows from the dam were hardly strong enough to transport the sediment through the sites. Ly asked if the fine sediment augmentation was included in the draft BA they will be consulting on. Dixon commented that it wasn't and Buxton added that it's a component whose role they are still learning about.

Todd Buxton reported that the Flow Work group met to develop the hydrographs and address implementation issues in April. They are developing a document, with Kyle DeJulio leading the effort, that will outline considerations and provide a working map for how the hydrographs are developed to provide a consistent process. The group put in a request with Reclamation to clarify what is allowed for sub-daily flow variations. Dixon added that the Flow WG and the IDT had concurred about asking for an informal opinion from the Solicitor about sideboards for existing NEPA coverage on flow variability and how to adaptively manage for flows. The WG is looking for an informal opinion on how the flow manipulations were analyzed in the EIS, specifically based on how the Program manages the volume and how deviations from base flow before or after spring might get them out of coverage.

Information

CVP EIS/EIS as it Relates to the Trinity River

Dave Mooney, Area Manager for the Bay Delta Office, gave a presentation on the ROC on LTO for the CVP and how it affects the Trinity River. The accompanying PPT can be found on the TRRP website. The reinitiation of consultation is done to incorporate new information learned from the recent drought with better operations for species and water delivery needs. Bader asked who the draft biological opinion had been shared with. Mooney stated that based on the WIIN act, it had been in internal review with water agencies. He noted that tribes and other entities will receive the draft next for peer review.

The proposed action will use three tools to meet ESA commitments for proposed flows: interventions, non-flow actions, and flows. During the 2014 drought, severe shortages in precipitation resulted in Reclamation running out of cold water and thus high mortality of winter-run Chinook. To address this issue, they proposed a tiered system to manage the cold-water pool based on temperature needs for adults, juveniles, and eggs. During Tier 1, the cold-water pool is used to maintain the 56F temperature limit. In Tier 2, the cold-water pool is limited, so some temperature shifts are permitted when eggs are small, allowing the use of warmer water and low oxygen water to focus the use of cold water at the most appropriate times. Under Tier 3, use of cold water is focused to reduce potential mortality. Under Tier 4, Reclamation would not have enough water to meet the 56F limit and would take emergency drought actions.

For the Trinity, there are no proposed changes to the ROD and they anticipate only reconsulting with the Trinity Division. At Clear Creek, Reclamation proposes some flexible blocks of water for spring attraction flows with an interest in how to maintain the channel, otherwise operations would be similar. Under emergency conditions, there would be some flows for gravel movement and habitat actions that would avoid putting facilities at risk.

In terms of conservation measures, they are proposing similar monitoring of habitats over the next ten years and building the rearing habitat in the Delta. Overall, these changes will provide 0.5 million acre-feet of water to the current water supply and address some of the existing concerns and uncertainty regarding flow management. Currently, the schedule for the Biological Opinion is delayed and will be finalized in September/October. The NEPA document is on track for completion in December with the ROD released in January 2020.

Hillemeier asked if the modeling used in the analysis looked at the potential for augmented fall flows on the Trinity. Robert Franklin commented that the models had differences in storage and flows than those used by the Program. Mooney suggested that Reclamation discuss potential changes for the Trinity flows and modeling to address those concerns. Regina Chichizola asked about the assumption that larger tributaries could offset potential temperature increases and asked how such cumulative impacts would be dealt with in terms of carryover storage and temperature management. Mooney answered that the biological opinion currently only deals with the Central Valley, adding that, the majority of water supply improvements would come from changes in the Delta so flows in the system would be similar in practice. He noted that the current reinitiation only deals with environmental inadequacies on the Sacramento side, but they were not dealing with the potential impacts to salmon in the Trinity. Reclamation would provide a response to concerns regarding changes to temperature in the Trinity.

Ly asked how the EIS/EIR interacted with the 2000 ROD for the Trinity. Mooney answered that they were not looking to modify Trinity flows, which are part of the baseline flows. He would take a look for the specific wording used to refer to the ROD flows.

BREAK

Continuation of Executive Director's Report

Due to limited time during the morning session, additional items from the Executive Director's report were presented after the EIS/EIR presentation.

Synthesis Reports

Eric Peterson reported that a number of synthesis reports are expected to start peer reviews in the next few weeks. Reports expected for completion in the last quarter were moved to this quarter. Currently one report has been received and 8 are expected soon. The Program is currently looking for help with peer reviews as there are only three SAB members. They are looking at ways to compensate potential reviewers, since the reports are lengthy and not necessarily cutting-edge science. It should be at least two months before the draft reports are done. Peterson noted

that Jenny Norris mentioned that the FWS has a process for getting peer reviews that might be helpful.

- Dan Everson and Nick Som will look into how the Fish and Wildlife Service has done their peer reviews for the Synthesis Reports.

Ly noted that NMFS uses the Center for Independent Experts for peer reviews, who they pay to solicit experts to perform peer reviews as another avenue.

Program Goals and Fundamental Objectives Review

Seth Naman gave an overview of the efforts the Program has done in developing the goals and fundamental objectives. The accompanying PPT can be found on the TRRP website. While the 2009 Integrated Assessment Plan (IAP) was the best attempt at developing a Program goal statement, the Program objectives that were developed were numerous, redundant, confusing, lacked targets, and were not testable. During the SAB Phase I Report in 2013, the SAB recommended that the Program develop a decision support system (DSS) as a major priority and refine the IAP objectives to make them less complicated and testable. In May 2013, the TMC held an Objectives Workshop to distill the objectives, reduce redundancy, separate fundamental and means objectives, and identify linkages to use in a DSS.

One outcome of the workshop was the development of a common language and hierarchy between goals, objectives, and targets, which is as follows:

Goal > Fundamental objective > Means objective > Target

Most assessments agree that the Goal and Objective Outcome of the Program is the one stated in the IAP:

The goal of the Program is to restore and sustain natural production of anadromous fish populations downstream of Lewiston Dam to pre-dam levels, to facilitate dependent tribal, commercial, and sport fisheries' full participation in the benefits of restoration via enhanced harvest opportunities. The Program strategy for accomplishing this goal restores and perpetually maintains fish and wildlife resources (including threatened and endangered species) by restoring the processes that produce a healthy alluvial river ecosystem.

Hillemeier asked if the goal statement had already been adopted as the Program goal. Dixon and Ly noted that it was never officially adopted, which was a major criticism of the Refinements report. Hillemeier noted an email from Tom Stokely from March 28, 2007 that requested the TMC review and then vote on the goal listed above. A lack of meeting notes during this period, however, makes it uncertain if the goal was ever officially adopted.

Naman continued that while most managers can agree on fundamental objectives, there is disagreement on the means objectives. He explained that the means objectives describe quantifiable targets and methods for achieving the fundamental objectives. DeJulio added that

the fundamental objectives were based on the assumption that a healthy river and pre-dam conditions would result in desired fish populations.

Naman continued that after the first workshop, the work groups took the objectives from the IAP to distill and refine them and to develop new targets/metrics. Much of this work was stalled the work groups for a variety of reasons. The most common were related to vague or non-specific language of the original objectives and groups trying to develop the perfect objectives and targets.

In March 2016, the TRRP held a workshop to develop a DSS. Development of the DSS eventually stalled out in 2016 when the TMC used a DSS with outputs from the S3 and frog models and the TMC stopped using them. Naman recommended that the TMC readopt and utilize multiple DSS to allow for adaptive management of the program. He noted that use of a DSS can adapt and change as better data and modeling is available and that the TMC needs to be comfortable with some level of uncertainty.

Hillemeier wondered if the TMC is partially using a DSS for temperature or gravel management. Naman answered that models are used, but that the information is not used in a structured framework to document decisions or tests approaches. The TMC partially uses a DSS, but not to its full capacity. Hillemeier added that the SAB had commented that the TMC was overthinking the DSS. Naman agreed explaining that a DSS can be a spreadsheet which outlines the issues, related questions, modeling results, and current conditions. A DSS would provide a way to outline decisions in a way that can be cataloged and referenced. Buxton added that the Flow WG does use a DSS-like framework but were told not to call it a DSS. They use a number of linked models to populate a shared table. The group reviews the tables and updates it with new information to document the results of what they did and did not do in the annual flow report. DeJulio added that a DSS would help inform management actions and guide the science and suggested it be prioritized and put in an Adaptive Management plan to guide the program.

Lindke suggested that the DSS should be based on the means objectives and targets as those provide the main direction for work. Naman noted that the means and targets, however, could change and suggested that the fundamental objectives might be better, and that some level of disagreement about the means and targets didn't preclude people from getting to the goal. Franklin added that disagreements could provide fuel for testing hypotheses.

Naman continued that there is no one currently managing the DSS. Connor noted that in 2007, there was a caveat that whoever managed the DSS needed legal counsel to look at it, but there is no record of any decisions about it.

Objectives and Targets Update

Nick Som presented on the current state of the objectives and targets refinements work groups. The Work Groups have made progress and used different approaches and recommendations to keep the work going. Challenges that many of the work groups have run into include:

- The amount of time it takes to review and assess the objectives outlined in the IAP

- Coming up with a common language between groups
- The perception that the objectives and targets need to be perfect to be useful
- Member fatigue over the task which gets in the way of keeping things fresh and staying on target.

The reason for updating the objectives and targets was to use them to make adjustments to the Program as part of an adaptive management framework. Som suggested that they do not need to be perfect, but to think of them as living items that can change as things progress. Attempting to get them perfect should not prevent the Program from using them to learn.

Som presented a few examples of how work groups have approached the refinements process. For some objectives, groups focused on a few rather than the entire list, allowing them to prioritize and complete them. Other groups combined similarly worded objectives to reduce redundancies while others were set aside as they did not have a high priority for the program or had no defined target. Som noted that setting some objectives aside did not mean that the Program did not care about them, just that it was not a main focus for monitoring and evaluating Program success.

Som presented some examples of how some of the work groups developed their targets and objectives. For some groups, such as the Riparian and Aquatic WG, they come up with an initial objective and target, collected and reviewed data for the target, and then refined the target to figure out the best way to look at the data to make it meaningful. In the Physical WG, they had a defined target and objective but needed to figure out how to conceptualize and assess the target based on available data.

Buxton asked if targets could be a range or if they needed to be a single value. Som answered that in some instances groups looked at multiple targets to capture the complexity. In some instances, using a range can be useful to score a target, but if the target calls for a complex evaluation it makes sense to move in that direction. The Fish WG, which started with targets of 62,000 naturally produced and 9,000 hatchery produced adult fall Chinook, realized there was a lack of compatibility between the TRRP goals and the PFMC on how management decisions were made that would keep the Program from meeting the goals. They eventually came up with a target of 131,750 naturally produced fish in contributing fisheries to help meet the target. Next they've tackled how to assess the target, which they are still working through with the cohort reconstructions and temperature targets. Through the exercise, they identified where they needed more information and areas where they can move forward.

There is still a lot of work left to finish refining the objectives and targets and that TMC should think about how to keep the momentum going. Hillemeier asked how the result of this exercise would be packaged; if they would be a list of refined objectives for the TMC or for the WG. Som noted that it was still a decision that was needed, his focus has been to help get actual targets developed, but its unclear how they will be received or interpreted. Naman suggested having a red light / green light list on the website or in the annual report for the public to review, however

Som noted that some of the objectives are not assessed that way, such as native vegetation dominance, which is assessed every five years.

Hillemeier asked where the WG are in identifying the targets and how to keep the groups motivated. Som suggested that the work would get easier as the WGs get through them, but that the refinements work needs to be a priority and not an afterthought. He suggested that groups tackle a small set at a time to get them done. Hillemeier asked if the WG should provide a summary of where they're at and their priorities. Som agreed and added that they should also think about what it would take to get them to the end.

Everson asked if the FWS had a way to pay for peer reviews, related to the synthesis reports. Som stated that they had a formal MOU with HSU where he helps graduate students with their statistics and they do some reviews for the agency. FWS also has a contract with an organization through NFWF that handles some of the reviews as well. Pinnix added that there is a program with Gary Clark that they've used to pay for peer reviews. Som recommended Real Time Research out of Bend, OR that FWS could facilitate reviews with.

- Mike Dixon, Eric Peterson, and Nick Som will discuss potential options for outside peer reviews for the synthesis reports.

Water Temperatures and Rearing Salmonids

Seth Naman presented recent findings that the Fish WG recently came across while working through the IAP objective to improve fishery temperatures for rearing salmonids. The PPT is available on the TRRP website. Current temperature targets for Douglas City and North Fork Trinity River are based on time of year to protect Sacramento Chinook salmon. During this analysis, the Fish WG noticed that there are no targets for juvenile rearing and the current temperature targets appear to lack an ecological connection to what other tributaries may be doing or what to do about extremely cold temperatures. The group found that the outmigrant target temperatures are based in Weitchpec, which would assume that the entire river would need to be colder overall.

The WG overlaid hydrographs for a range of water years and noted a drop in temperature that coincided with the ROD flow release. In 2016, that drop was 9F, while in other years its varied between 4-5F, which could be a big deal to smaller fish. In March, before the ROD releases, temperatures start to rise as air temperature get warmer, which follows the general trend that river biota have evolved under. The questions is what effect that sudden cool down effect from the ROD releases has on the fish. A recent paper by Lusardi et al. in the *Canadian Journal of Fisheries and Aquatic Sciences* done in the Shasta River found that populations of Coho salmon in the coldest sites over the summer had the lowest growth rates for juvenile salmonids, while sites with warmer temperatures capped to 21.1C had the best growth. The study indicates that colder water is not always better, especially for juveniles. This is supported by other research that indicates the combination of temperature and food targets are better for optimizing juvenile growth. Results indicate that the ROD flows may have flipped how the river works by making

tributary streams warmer than the mainstem downstream of Lewiston Dam, which is opposite of the natural temperature continuum in the mountains, where water should get warmer as it flows downstream.

In response, the Fish WG developed a new juvenile rearing target that is a range of optimum temperatures, which benefit Chinook and steelhead as well. They used a 7-day average of the daily average that is less sensitive to small exceedances. The new target is 13-16.5C (55.4-61.7F), which will allow for adult holding and migration targets in August to be met. This target allows for complexity to optimize juvenile growth and allow for a more natural flow regime. The target would call for more flows in winter, fewer in spring, and tapering to base flow earlier than is currently done. Naman added that more modeling is needed along with scientific rigor as the ratio could backfire if conditions get too warm, resulting in slower growth, or not enough food is available to support higher metabolism.

Hillemeier asked if there was a relationship between food production and temperature. Naman noted that a few models have been developed and in most of them, the primary variable was food, not temperature. Som and DeJulio added that studies had found that as temperature increases, life cycles also increase as does ration. Buxton asked if the range would apply to Douglas City and why the target would begin in May, which differs from other creeks in the system. Naman answered that the WG wasn't sure where the best place would be and that they want to look at heat gains between Douglas City and North Fork. Som added that temperature management would be just below Pear Tree. Naman continued that comparing rain in winter with snowmelt in spring shows a larger volume entering Lewiston in the winter. The suggestions would adjust the hydrograph to a more natural pattern to start flows in the winter and taper in the spring. This would still get fish out into the floodplain and result in a more muted temperature decline. He suggested potentially looking at other engineering fixes to move the water

LaBanca asked if the juvenile growth period was limiting over the lifespan of the fish and if they could catch up in the ocean. Som answered that the best predictor of survival at ocean entry was size noting that the goal is to have the fish as large as possible to improve fish returns. Hillemeier asked how this information fits with the whole Klamath Basin, noting that the fish just hadn't seemed to do well after leaving the system. Naman commented that during drier years, fish tend to migrate earlier and by dropping the temperature it delays the migration, but could also stall growth as well.

LUNCH

Initial Findings from Synthesis Reports

The presentations are based on synthesis reports that are planned for peer review during this quarter. The presentations will not be available on the TRRP website following this meeting as the information presented has not been peer-reviewed and may change. To protect the scientific integrity of the data, the information presented below represents the current status of the data from the Program and is subject to change in the future.

Trinity River Large Wood Management Strategy

Wes Smith presented on the findings of the Large Wood Management Synthesis report. Under current conditions, dams have blocked and flow releases have limited transport of large wood material. Logging and mining also removed and depleted wood sources and valley bottom stands, limiting regrowth and in the river valley and increased encroachment, resulting in low quantities of in-stream large wood in the restoration reach. Large wood is needed to create and maintain complex channel morphology and aquatic habitats, which was largely overlooked in the Flow study and the ROD.

The team did an extensive literature review and looked at Trinity River dynamics to develop a conceptual model with a large wood budget. The model was based on one developed by Collins et al. (2012) and large wood cycles developed for the Pacific Northwest, along with other resources on how wood enters, is transported, deposits and functions. The conceptual model was used to look at historic and existing large wood transport to develop storage targets. These targets aim to reach a four-fold increase in rearing habitat and doubling of production, with a messy wood-filled river indicating a healthy river. Habitat creation is estimated using large wood loading data, morphology, and GIS modeling. The budget incorporates inputs, outputs, losses to decay, as well as budgets based on channel morphology, transport, and deposition dynamics to track how well the Program is meeting its storage and augmentation targets.

The overall aim of large wood management is to increase large wood accumulations and structural complexity of the river. This will, in turn, promote additional fluvial processes, hydraulic and geomorphic diversity, and the density and diversity of habitats. The Physical WG is currently working on monitoring. The Physical WG will provide a draft by October 15. Current work focuses on completing the GIS mapping work and modeling. The results of the report can be integrated into the River Corridor Management Plan and the Design Guides.

Upper Trinity River Active Bar Area Mapping – Coarse Sediment Storage

Scott McBain discussed coarse sediment storage work, that has been developed since 2014. Connected to the flow data, was the objective to increase coarse sediment storage, however no targets were set for it. A field-based inventory of active bar areas was done to relate existing active bar frequency and forcing mechanisms to evaluating how active bars are currently formed. Field methods included GIS mapping from Lewiston Dam to North Fork Trinity, with each reach mapped independently. Active bar sites were then monitored post-ROD flows to record portions that are actively moving from the lower edge boundary to the 450 csf water edge. Initial mapping in 2015 was related to fry and pre-smolt habitat, and the new SRH-2D modeling added habitat associations. To analyze the data, they compared average gravel storage areas to how much it occupied the length of the channel to determine variables in active bar storage.

Analysis indicated that sub-reaches with higher active bar area were related to channel rehabilitation and sediment supplies. Subreaches 2 and 4 had the lowest active bar area, with subreach 4 recommended for sediment augmentation. The SRH-2D modeling indicated that with flow, habitat decreases with some preservation of active bar areas. Currently there does not

appear to be a conclusive relationship between fry and pre-smolt habitat and active bar for the entire river, but relationships do appear at the subreach or 1000m resolutions.

In terms of future analysis, the team is looking to revising the SRH-2D modeling to expand to new reaches. There are also some proposed experiments with the design teams to use features to increase the active bar areas. Current work is looking at how to take the data and use it to develop habitat storage targets for each subreach that are related to habitat capacity in a geomorphic context.

The team is looking to import their findings in the revised coarse sediment management plan and map and investigating other ways to increase active bar area that aren't solely focused on gravel augmentation, but use other measures such as wood structures or projects that alter hydraulic flow direction to expand the channel and create storage features.

Quantification of Cottonwood Seed Dispersal Periods

John Bair presented on efforts to quantify and determine the period of black cottonwood seed dispersal on the Trinity River based on the 2018 investigation plan. The group utilized existing data to quantify the seed dispersal period for the species as the largest non-conifer species growing in the riparian corridor. Seed dispersal varies annually, with literature suggesting it is related to weather. The hope is to identify a key window for seed dispersal to facilitate regeneration of the species. Dispersal is known to vary by site, tree, and year along the Trinity. The team looked for consistency of seed dispersal by year by % of canopy dispersing seed and by how much seed was dispersed. Peak dispersal was set at the point when 75% of the seed dispersal rate, which was used a binary metric.

The analysis found that variation between trees and sites was not significant, however annual variation was. The team determined that the best target was based on when the most trees in the canopy were dispersing, not when the most seeds were delivered, which could be based on only a few prolific trees. Based on that data, Week 10 and Week 11 found that all trees were actively dispersing some seed, indicating May 15 – May 29 as the priority window for seed dispersal. However, the results did find some relationships between weather and dispersal. There were strong relationships with dispersal at 2000 hours of cumulative hours of heat above 40F, which were related to distinct start and stop times. Binary seed dispersal results indicate that by May 19 most of the trees are dispersing seed for all years assessed. Currently these seed windows appear supported by the data, but power-analysis indicates the need for more sites, years, and trees. The team expects to deliver the synthesis report to the program later this week for review.

Smith asked if the analysis indicated an ideal flow range needed during the two-week dispersal period. Bair stated that the GIS analysis estimates that ideal flow is between 1500 and 4500 during this period as it is where the most open area and water delivery is ideal to allow for germination.

Riparian Encroachment Synthesis

John Bair reviewed the riparian encroachment study that was delivered recently to the Program for peer-review. The study was done due to concerns that encroaching vegetation growing too close to the channel would trap sediment in berms, limiting salmonid fry rearing habitat. During dry years, there were concerns that trees would grow in portions of the bank and flows would not scour away young plants. Management of encroachment after ROD flows were deemed inadequate to scour plants and they would remain and have the potential to encroach in the bank.

Field studies installed cross sections and marked rock sediments to assess channel bed scour as it related to flows. Plant root length was then measured in the gravel bar and particle size distribution in the gravel bar. The idea being if particles with similar lengths as the plants were moved, it would result in the death of the young plants, thus root length was used as a proxy for particle size. The gravel bar was broken into zone that would either inhibit or promote woody plant establishment. Of concern is the bar bank where encroachment would cut off access to fry habitat. Band transect modeling was done from 1993-2009 at channel rehabilitation sites and vegetation was removed and new channel morphology was created in these areas. From 2010-2012, the transects were co-located with habitat studies at 400m GRTS segments to create a sampling framework in places that may or may not have gravel bars. From 2013-2015, a census was conducted using GRTS-selected transects at gravel bars.

Data compared to water years to look for peaks that would result in young woody plant mortality and scouring. Results indicate that 3 cohorts of woody plants made it through: 2006, 2012, and 2017, as during these years, peak flows were not strong enough to scour these cohorts from sites. The analysis found that the mortality mechanisms from the flow study were still relevant for managing woody vegetation above the water fringe, but there are potentially others that are not currently captured in the monitoring or mapping analysis. The study recommends developing and adopting a revised vegetation encroachment hypothesis that surviving cohorts may occur in discrete patches or in dense, continuous bands depending on the anticipated or desired channel pattern and that either configuration could be beneficial.

Bair noted that the results indicate a conflict between what is desired and what is possible, which does not follow the channel planform. The study recommends adopting a segment-based channel pattern to rectify differences in the current channel prediction analysis and current conditions along the river. Encroachment could be used in a variety of ways, depending on specific goals for an area and what each reach can do.

Analysis of peak flow frequency does indicate some flexibility in how to achieve peak flows to maximize geomorphic work and sediment transport. This is based on the increased magnitude of floods. The report recommends evaluating current berm conditions and evaluating topographic changes using topographic surface differencing methods applied to two terrain surface models. In terms of summer base flows, these do not vary except for increased flows every other year in August and for tribal ceremony purposes. The report recommends an evaluation of variable summer baseflows and temperature effects from lower flows in dry years and longer recession

periods during wet years to see if there is flexibility in the base flows and how it can be used to manage woody plant colonization. The report presents some questions regarding fine sediment transport, especially after fires where episodic transport is expected, which could develop new berms. Additional analysis of the periodicity of fine sediment transport is needed to determine its relationship with berm building and flow through. The report recommends development of a physical conceptual model to determine when encroachment is no longer an issue, allow for some level of encroachment in the river which could be beneficial.

Bed Mobility and Scour

Scott McBain presented modeling work on bed mobility and scour, which were recommended in the flow study to inform changes in flow recommendations. In 1991, surveys were unable to find active channel bars. Monitoring work was used to develop a bed mobility target of 6000 cfs for bed surface and deep scouring. Under the IAP, bed mobility and scour monitoring was changed to GRTS sampling, but the team wanted to look at other tools to assist with DSS development and provide a predictive tool to estimate bed mobility and scour. Modeling from 2009-2013 data was used as a performance metric to develop a predictive tool. The effort used data from winter storm events and ROD releases along with 2009-2013 topographic data to look at how the channel has changed. A total of 111 bed mobility sites and 113 bed scour sites were used. The gravel bar was divided into three zones: bar bank, upper bar, and entire bar. A binary metric was developed based on the percent of rocks moved at a site. If 80% or more of the rocks moved, then the site was mobilized, with a similar metric for bed scour. After looking at a variety of dependent and independent variables, maximum daily average flow at the monitoring site was used to determine the probability of a bar being mobile or scoured. The data could be useful for a DSS and to make predictions or expectations for bar mobility and scout. The models may need to change to account for grain size and topography changes. The Physical WG is discussing whether to use the models over physical surveys.

Channel Complexity

Scott McBain presented the findings of the channel complexity report. When assessing complexity, more physical and hydrologic complexity led to more physical habitat complexity that provided more services to species. The problem with complexity was that it was only focused on physical components to justify fish habitat needs. The synthesis paper looks at a new perspective for river corridor complexity that considers the ecological perspective as well as functional complexity and relieves the pressure of justifying complexity based on the number of fish. What they found was that there was a statistically significant relationship between corridor complexity and fish numbers in the system.

Overall, there are 153 metrics used to define complexity, function, and processes. The team went through the metrics, along with measurable expressions, sources of data, and targets to prioritize and focus the list. The list was prioritized based on complexity domain and across overall Program needs. This will lead to refinements to management actions to achieve better complexity metrics, as well as refinements to the science work plan and better methods to

document complexity metrics. The team anticipates a draft report next month, with a final report by the end of the year.

Public Forum

No comments were submitted.

Adjourn for Day 1; 4:17 pm

Day 2, September 5, 2018, 9:00am

Meeting was called to order at 9:06am when quorum was present. Justin Ly welcomed all attendees and asked everyone to remember to sign-in for the record.

Tony LaBanca invited everyone to join him after the meeting to see the Willow Creek weir at Trinity River Farms, which started operating on Tuesday.

Regular Business

Introduction

Justin Ly asked all participants and council members to introduce themselves.

Public Forum

EB Dougan, former TAMWG member, representing small businesses and guides along the river, submitted a few questions to the TMC. He wanted to know what river restoration had done for river spawning. In the last two years, hundreds of redds were seen in Del Loma and they have noticed them move farther and farther from the Lewiston Area, and wondered what the cause was and why these areas were no longer being worked on.

Dougan also asked how the TMC was addressing the lack of a legal stakeholder body since the TAMWG was disbanded. The TAMWG meetings allowed stakeholders to present issues and concerns to the TMC, and since then river restoration problems have become bigger and more costly with limited results for Coho and steelhead. Since 2012 (or 2010), there has hardly been any work in the watershed, even though the ROD states that the Program should focus on getting more Coho and steelhead spawning. The newest problem seems to be that Coho and steelhead are interfering with native spawning. Funding has also been down, which used to use \$200,000 in the watershed and now it's down to \$100,000 and it's not changing downstream. Several other creeks in the watershed have seen better spawning in response to the good winter such as for steelhead and the South Fork spring run. Something more needs to be done on the South Fork. Dougan requested the TMC address these issues either at this meeting or the next.

Dixon responded that there would be an initial presentation later in the day from the USFWS on redd surveys from the synthesis reports. While he did not know the findings, the report would review 20 years of data and provide an overview of where spawning was occurring. As far as spending in the watershed, the Program had allocated around \$689,000 in FY17 and \$500,000 in FY18, but FY19 grants didn't happen due to hang-ups in contracting and grant awards. There was still in-kind support from project partners and NMFS is consulting on non-flow related

actions and tributary restoration projects to help partners work under the Program's coverage to meet their requirements. The Program is working the whole way down the River to Klamath and the South Fork and looking to put more attention in the South Fork. There are currently residual funds to get LIDAR data for key watersheds that can be used as a match for state funding to lower planning costs. DeJulio added that such products were important for leveraging other funding sources in the basin and were a benefit even if it's not funding specific projects.

Dougan added that action was still needed. When counts show 100 or fewer in a project site, its not a good indication of success. There have been low years of spawning on the South Fork and some creeks need to be opened up at the mouth. Projects at Soldier Creek, Canyon Creek, and Junction City were wiped out and wasted money. Dougan asked how the TMC planned to make better decisions about such repairs. Ly suggested that Dixon follow-up on stakeholder input and how to proceed without the TAMWG.

Information/Decision Items

Finalize Refinements SOW; Determine Funding Avenue for Coordinator

Ly explained the Refinements Coordination team had developed a draft scope of work (SOW) during their meeting in July. Ly noted that Orcutt, Norris, Hadley, Groves, Connor, and DeJulio had been involved in drafting the SOW at the meeting.

Dixon reviewed the drafted tasks and requested edits. For the first task, the Coordinator would provide some structure to help develop ideas to help the TMC reach consensus on decision items. Ly explained the Coordinator would convene a drafting committee to help with the process. Groves asked if the tasks were placed in order of importance. Ly answered that they were based on which tasks would be done first in terms of importance and timing. Hillemeier asked who would be on the drafting committee. Ly answered that the committee would be formed after the Coordinator was selected and could be TMC or TRRP staff. Dixon explained that Task 2 was based on Headwaters' recommendation to draft a new foundational document.

Orcutt asked how the Coordinator would work with the Facilitator for the September 23-24 meeting and that he originally envisioned the role would be filled in the interim with staff support. Connor noted the Coordinator would not be in place by the Sept 23-24 meeting since the solicitation would not be out by then. Dixon added that the soonest he could have a Coordinator contract awarded would be by the end of February or March, as there would be work to iron out with the SOW and the IGCE. Hadley added that posting at the end of the fiscal year might also influence when its flown and that she did not want to micromanage it since the Grants Coordinator would likely modify it more before it was flown.

Dixon clarified that the Program sought additional details that would affect how the solicitation was scoped, such document reviews, how many in-person interviews, and how many meetings the TMC is expecting. This would prevent the Program from coming back with less than the TMC expected. Ly asked if that information was needed now or if it would be influenced by the contracting vehicle they selected. Dixon said it depended on if they used a grant or contract and

how much involvement the TMC wanted in selecting a Coordinator. Grove raised concerns that a drafting committee might just be setting up for a big fight with the TMC, and that the TMC draft the document. Dixon explained that the idea was to have a group outline items for the TMC to discuss rather than developing an on-the-fly document. Groves stated that the drafting committee, then should not be made of TMC members but staff to make the process as smooth as possible. Dixon asked if that meant TMC agency-level staff. Groves agreed and added that he expected an outline document for the TMC to discuss and that he did not want one agency in charge of writing it.

Seth Naman had the following comments:

1. On Task 1, add that the person should spend quality time with the TMC and the drafting committee to draft and implement the Program Plan. Include a note that help with the implementation of the plan is also expected.
2. In terms of timing and resources, the Adaptive Management Plan could be pushed off. Help with the implementation is more important to get things working. The AMP can come later, but a comprehensive strategic plan is an important step. The AMP could rebuild and revisit efforts from 2001-2002.
3. For the Program review, the Coordinator should formulate goals and complete objectives as part of the Program document.

Orcutt asked if there were other potential options that could allow the role to be filled earlier than February, citing the protracted delays and staff turnover that have prevented the Refinements process from moving forward. Ly responded that the potential funding mechanisms would be discussed next, which could clarify the options. Orcutt answered that the tribe offered to help on one proposed approach, but it was stalled and the TMC lost a lot of progress. Hillemeier echoed Orcutt's concerns about the delays, noting that Chad had recommended that the TMC could get started developing an AMP and a Coordinator could help revise and polish it instead of the Program being stuck in limbo until these decisions were made. Hillemeier suggested having the technical staff, who are getting burned out on the objectives and targets work, put together an outline for the AMP instead. Orcutt commented that waiting for a plan could further delay the process and he preferred to invest the time and resources toward the group addressing the refinements. He suggested that staff review and provide input on the Coordinator SOW before it went out. Connor commented that it would mean revisiting the SOW in December. Dixon reminded the group that there was a meeting in two weeks. Ly commented that the planned discussion on the Bylaws amendments could also speed up the decision-making process by allowing executive sessions or special meetings. Hillemeier commented that he believed the TMC approved of having staff work with the Coordinator and he didn't believe another TMC meeting was needed.

Hillemeier made a motion to that the TMC conceptually approves of the SOW for the coordinator contract as presented today and additional details associated with

the contract will be worked out with the Coordination committee informally over the next two weeks (prior to submitting to BOR contracting).

Hadley 2nd, friendly amendment to add the work Refinement Coordinator and Refinement Coordination Team.

Orcutt commented that he was uncomfortable with the document being drafted from conceptual discussions and what it would mean for the TMC to approve of it in that state. He was concerned about how they would address strong opinions or deal breakers for the SOW before they headed too far down the road. He added that the next steps are vague and that the SOW currently did not refer to the Refinements discussions they had had. Hillemeier said that TMC members should review the document and provide suggestions in two weeks, giving enough time to note if they needed to change course between now and then. Connor commented that what was missing in the SOW was having a structure meeting with the partners for the development of the Strategic Plan. Ly noted McBain's reference to a draft strategic plan that the new Science Coordinator could review as a separate process. Orcutt asked if the SOW was based on a competitive bid process for an IDIQ or an AFA. Ly answered the current SOW was neutral and did not pigeonhole the TMC to a specific mechanism. Dixon added that once a mechanism is chosen, then they would be pigeon-holed to that process.

Orcutt made a friendly amendment to conceptually approval the SOW and have the TMC approve the SOW at the September Refinements Meeting.

Hadley asked if two weeks was enough time for Reclamation Grant staff to approve the SOW. Dixon did not believe so with the end of the year coming soon. Hillemeier added that he did not initially proposed to have approval, but for the TMC to provide input on the SOW, since voting would not be done at the Refinements meeting. Hadley commented that it would depend on the upcoming bylaws discussion.

**Hillemeier made a motion to table his initial motion on the SOW until after lunch.
Hadley seconded the motion.
Motion passed unanimously.**

Funding Avenue for the Refinements Coordinator

Dixon presented a table of the potential funding avenues with related constraints and estimated timelines. Orcutt commented that the AFA was the best approach in his opinion because it was the least restrictive and had the best latitude. He asked for a motion to consider using it. Hadley responded that she had run the idea past the Solicitor and they were not comfortable using that because they did not think it would be an acceptable method. Orcutt commented that it seemed like a stall tactic to prevent its use. Hadley responded that she had asked the Solicitor to examine its use, but they were not comfortable with it and likely would not come back to the discussion until the end of the fiscal year. Orcutt added that an AFA had the most flexibility and best timing of the options. Dixon explained that for a grant, they would need to find an associated law to justify the award to an individual rather than an organization and they have not been able to find

one. He added that all funding opportunities announcements for grants now required two separate departmental reviews: one for the announcement and a second for when a grantee was selected, which would increase the time before an initial award beyond the estimated 4-month window in the table. Hadley added that the reviews are at the Secretary's office in Washington DC.

For the Interagency Agreement, Dixon explained that they would need to find a federal agency to use that one. The approach would be straightforward and easy to add money if underfunded or get back funds if it was overfunded. For a 638 Agreement, they are currently in limbo with the Solicitor's office on whether they can use it. An AFA would require a review from Denver and a 90-day Congressional review. A modification to an existing AFA would go faster, but still would not be in place until the middle of next year. Federal contracting was the most straightforward way to draft the document, the challenge would be sorting out a qualified awardee vs. an expensive contractor. Orcutt suggested that the BIA could administer the contract as an interagency agreement. DeJulio asked if the same review of the SOW was needed for each funding avenue. Dixon answered that it was and recommended using federal contracting as it was the most straightforward, and there are a number of consulting firms that could do the work. Connor asked if universities would be prohibited from federal contracting. Dixon believed that as long they were registered on SAMS they could, but that university overhead costs can be steep. Groves asked why they couldn't pursue more than one avenue. Hadley answered that as a large agency, Reclamation would be assigning people to work on each avenue, resulting in having to repeat the same conversation, processes, and documents for each one. Dixon added that contracting would also see it as disingenuous.

Orcutt asked how the TMC would be integrated in selecting the awardee. DeJulio added that a contract would make it harder to make any modifications moving forward, as they have experienced with Chad's contract. Everson asked why the TMC never pursued using the U.S. Institute for Environmental Conflict Resolution [Udall Foundation]. As a federal agency, they could use an interagency agreement. Ly asked if they would be able to carry out the SOW. Everson thought they would need to do some research on it.

- Dan Everson will research whether the Udall Foundation can perform the role of the Refinements Coordinator based on the scope of work.

Hillemeier asked if there was a way to address DeJulio's concern by having the SOW be inclusive of the number of meetings, time, and materials so the TMC could have more control of changes. Dixon explained that it would require obligating more money for those tasks, which would be harder to get back if they're unspent. He suggested having a series of optional tasks to allow award through a series of task orders to fund them. It would pare down what is originally funded but allow them to add more later. Orcutt commented that there were only a few with the expertise to do the work required and asked if a sole source acquisition would work.

Keith Groves made a motion to use the Contract method for a Refinements Coordinator as recommended by the Executive Director and direct him to use the option task method discussed to give as much flexibility as possible. Connor seconded the amendment.

Orcutt stated concerns about the urgency of the contract and if an AFA would be faster overall. While setting up a new AFA would take time, modifications to the contract are faster. Ly commented that the ED's recommendation to use federal contracting was based on timing and appropriateness. Orcutt asked to look into the Udall recommendation. Dixon added that they needed to reach out and know what services they provided before they could go that route. Connor asked if other federal agencies would be restricted from applying. Hadley did not know. Orcutt added that there were only a handful of people and that there wasn't a clear avenue to select one of them. Groves added that such information would be addressed in the SOW. Connor commented that when they previously put out a contract, the TMC was told the selection process was confidential and that the TMC weren't a part of it. Hillemeier commented that they talked to potential candidates when Chad was selected. Connor clarified that the tribes were present, but not the TMC. Everson commented that agencies can ask for a sole source contract if it's appropriate and follows contracting rules. DeJulio asked if the TMC would have more input on a cooperative agreement, like an FOA. Dixon answered that he wasn't sure why non-federal committees were allowed to review grants and not contracts. DeJulio responded that since the TMC was a committee it seemed more appropriate than to have a single agency managing the contract. Hillemeier asked if an individual could apply under an FOA. Dixon answered that there needed to be a public law that authorized the award of money to an individual and most laws don't, noting that they couldn't find one to justify the Junction City House funding. Orcutt asked that the SOW include the ability to acquire uniquely qualified individuals.

Mike Orcutt made a friendly amendment to include language regarding specialized skill sets or unique qualifications to provide an option to pursue a sole source contract.

Groves asked for clarification on what a sole source contract would do. Dixon explained that it would mean the contract would not be competed and required justifying with research why it needed to be pursued that way. Connor stated that she was uncomfortable pursuing a sole source option. Orcutt added that there were only a few people who could do what was needed. Connor added that there could be others out there as well. Orcutt asked how they could reflect that in the SOW. Ly commented that the SOW would not preclude any of the potential candidates from applying. Hadley commented that knowing there were at least three options meant they could not justify a sole source, since you would have to justify there was only one.

**Groves declined the amendment.
Motion passed with seven votes in favor and one vote opposed. Hoopa Valley opposed.**

TMC Bylaws and Changes to Date

Eric Peterson provided the TMC with an annotated version of the TMC bylaws along with a list of approved motions to review. The original Bylaws were accepted in September 2003 and amended three times: in 2010, 2012, and 2017. Section 400 was amended in 2017 to include information on officer selection. All other edits were to Section 600. In 2010, amendments regarding majority voting (Sec. 603) and abstentions (Sec. 604) were added. In 2012, amendments added teleconferences and information on special meetings (Secs. 600, 601 and 605). Language was inserted in 2017 on ratification and changing the first meeting of the year (Sec. 600). Peterson noted that there had been debate about Section 300, which states that members could be added unanimously as described in Sec. 603. Section 603 provides no information on unanimous voting. Dixon clarified that the question was whether unanimous voting could be done with less than 8 members. DeJulio suggested striking “as described in Section 603” from Section 300. Groves added that more language was needed in case a member was not present.

Orcutt made a motion to amend Section 300 of the TMC bylaws to replace as described in Section 603 with 8 of 8 TMC members.

Hillemeier suggested stating “all TMC members” to include all current TMC members. Groves suggested “8 of 8 or all active TMC members.”

Groves made a friendly amendment to add “or all active voting TMC members” after “8 of 8.” The new phrasing would be

Entities may be added to the TMC by unanimous vote of the TMC, 8 of 8 or all active TMC members.

Orcutt accepted the amendment.

Everson seconded the amendment.

Groves asked if the TMC would vote on each amendment now or on the entire bylaws as a package. Ly explained that when the TMC makes a motion to amend the bylaws, the accepted motions become the updated bylaws. Orcutt preferred to accept the amendments individually rather than as a whole package. Ly added that the amendments in red have already been approved and will not require a vote.

Connor made a friendly amendment to change the clause to all active voting TMC members.

Connor noted that members could be added and that the Executive Director was technically a non-voting active member.

**Orcutt and Everson accepted the amendment
The motion passed unanimously**

LaBanca issued a point of order regarding Section 600(g), which requires that TMC members have all meeting materials in advance of the meeting, noting that the July Refinements

Coordinator SOW and the table of funding vehicles had not been provided. Ly noted that he and the Executive Director had discussed the oversight.

Peterson noted a minor typo in Section 600(e) from 2012 which added an extra “a” to the clause.

Dan Everson made a motion to correct the typo in Section 600(e) to take out the extraneous “a” before “the next quarterly meeting.”

Elizabeth Hadley seconded.

The motion passed unanimously.

Groves asked if the teleconference meetings were open to the public, citing Sec. 600(e). Connor commented that the TAMWG Chair was previously on those calls representing the public.

Groves added that if the TMC was voting under special circumstances, those should not be open to the public. Dixon added that they can’t hide their votes from the public because votes were ratified at the next meeting.

Ly opened discussion on amending the bylaws to allow for special meetings, noting the attempt at the last meeting to address the need to have closed meetings for sensitive topics. Hadley questioned, since both motions failed to amend the bylaws at the last meeting, whether the TMC could revisit it. Ly explained that the TMC could not revisit it at the same meeting but could reconsider at subsequent meetings and added that the motions failed at the last meeting due to absences of voting TMC members. Orcutt asked the TMC to define who would participate in an executive session, suggesting they be limited to TMC members only. Dixon referred the TMC to the Solicitor’s advice from April 2003, which stated that the TMC had no legal requirement to meet in public but that all notes and actions made by the TMC were subject to FOIA, indicating that special meetings could be closed to the public. Groves commented that he’d be open to discussion if the Chair believed that minds had been changed since the last discussion.

Orcutt commented that previous discussion about closed meetings indicated that they couldn’t have executive sessions and asked what had changed. Dixon explained that the reason they hadn’t had executive sessions was that the Solicitor noted that the bylaws hadn’t defined it. Hillemeier suggested that the TMC have a motion under Section 600(d) to add an exception to public meetings for executive sessions. Connor suggested it be a separate section to specify what is meant.

Hillemeier made a motion to amend Section 600(d) to read: “all regularly scheduled and special meetings of the TMC shall be open to the public, *except executive session.*”

Grove asked the TMC to explain how an executive session would work. Hillemeier explained that the public would not attend, no notes would be taken, and maybe staff members were allowed as appropriate. Dixon asked how such sessions worked for the state. Groves explained that the state would need notes but it would be done internally. Hillemeier added that it was similar for tribal council and they would invite staff to discuss issues, but then excuse them. However, formal votes are done outside of executive sessions. Groves added that they were used

only for contracts, lawsuits, and executive personnel issues. Hillemeier asked who could participate and if the TMC would invite people who were not staff. Groves asked if alternates would attend. Orcutt suggested that they could if primaries were not available and added that the TMC needs to come back to open sessions to inform the public of decisions.

**Hillemeier added the following to the amendment:
Executive sessions shall be comprised of one representative per TMC entity and invitees of the Chair of the TMC.**

LaBanca suggested that limiting discussion to one representative might limit and affect continuity of discussions on issues. Hillemeier asked if the Refinements discussion should be special meetings. Ly stated it hadn't been addressed. Connor explained that those meetings are not TMC meetings, but Refinements Coordination meetings. Hillemeier suggested that the primaries and alternates should attend the Refinements meetings moving forward. Connor added that the Refinements meetings are not executive sessions and suggested that added sessions would address lawsuits, contracts, or executive personnel. Dixon commented that such deliberations between government agencies should be done in public and that the TMC should define when to use an executive session.

**Hillemeier added that the following to the amendment:
Executive sessions shall be limited to issues related to contracts, personnel, or legal matters.**

Hadley asked what was meant by personnel, as there were restrictions on how involved the TMC could get with personnel issues. Hillemeier suggested what while the TMC couldn't make decisions they do have a responsibility to discuss personnel issues as they arise. Orcutt asked if the TMC was limiting itself to these three categories in case other sensitive issues arise.

**Orcutt made a friendly amendment to add "or other sensitive matters as determined by the Chair."
Hillemeier accepted the amendment.
Everson seconded the motion.**

Dougan commented that as a board member for Willow Creek, they generally announce what happened when they come out of a closed executive session and asked the TMC to do the same. Connor commented that while the TMC was not subject to the Brown Act, she recommended the same. Groves explain that whatever matters are discussed during an executive session needed to be on the agenda, but they can be discrete. If a vote is taken, you need to say how the vote carried. The point of a closed session is to allow members to give their opinions, but it would not be confidential. Groves stated that he was still opposed to the amendment because Trinity County deserved openness from the group and did not see any issues that could not be discussed in public.

Current status of the amendment reads as follows:

Section 600(d) – All regularly scheduled and special sessions of the TMC shall be open to the public, except executive session. Executive sessions shall be comprised of one representative per TMC entity and invitees of the Chair of the TMC. Executive sessions shall be limited to issues related to contracts, personnel, legal matters, or other sensitive matters as determined by the Chair.

Vote passed with seven votes in favor and one vote opposed. Trinity County opposed.

Ly asked if there was a motion to allow for special closed public meetings to allow the TMC to deliberate on specified topics, such as the July Refinements meeting, which would allow a closed meeting but allow for voting rights. Hadley did not see why that was needed. Peterson asked if the TMC needed to address Section 608 to limit minutes for executive sessions. Ly proposed that executive session should not have meeting notes. Dougan agreed that it needed to be specified in the Bylaws. Groves explained that for executive sessions, they needed to announce it, close the meeting, and then announce what happened. Ly commented that it should be reflected in the minutes that closed sessions were not recorded and that Section 608 did not specify needing minutes. Groves and Hadley disagreed, with Hadley noting Sec. 605(d) would cover the meetings. Ly suggested that the TMC vote for absolute clarity that minutes were not needed for closed sessions.

Hillemeier made a motion to amend Section 608 to add: “Minutes shall not be recorded during executive closed sessions.”

Ly seconded the motion.

The motion passed with seven votes in favor and one vote opposed. Hoopa Valley opposed.

Clean versions of the updated bylaws with the previous amendments and the amendments made in the current meeting were printed with an updated signature page. The updated bylaws were signed by all attending primary TMC members.

The U.S. Forest Service left the conference call after this section.

LUNCH

Revisit motion for the Refinements Coordinator Contract

Hillemeier made a motion that the TMC conceptually approves of the SOW for the Coordinator contract as presented today and additional delays associated with the contract be worked out with the Coordinator committee informally over the next two weeks (prior to submitting to BOR contracting)

Hadley seconded the motion with a friendly amendment to add the word “Refinements” to Coordinator and Coordination committee. Hillemeier accepted the amendment.

**Orcutt made the friendly amendment to change “over the next two weeks” to “at September 23-24, 2019 Refinements Meeting.”
Hillemeier accepted the amendment.**

Hadley asked if discussing the SOW at the Refinements meeting would allow enough time to finalize the SOW. Dixon answered that they could iron details over the next two weeks. Hadley asked if the amendment was to have a final product by then. Hillemeier clarified that it was not his intent since acquisitions would do some modifications to it before it was flown. Orcutt clarified that his intent was for the TMC to have input on the SOW and wasn't sure the amendment would fix the other concerns discussed.

**Hadley accepted the amendment.
The motion passed unanimously.**

Initial Findings from Synthesis Reports

Assessment of Adult Salmonid Spawning in the Trinity River

Steve Gough (USFWS) presented the synthesis report for adult salmonid spawning. He reviewed the main contents of the report and noted that the presentation would focus on findings from ground surveys. To evaluate escapement, the Fish WG did a composition of time runs against escapement targets for fall run Chinook, spring run Chinook, Coho, and steelhead. These indicated that spring run and Coho have been the most successful at meeting escapement targets. Orcutt asked if the targets were based on pre-dam levels. Gough stated that were with 6,000 for Chinook, 1400 for Coho, and 40,000 for steelhead.

Annual surveys of the mainstem Trinity were conducted for carcass and redd data, with incomplete surveys of tributaries. The carcass data is used to estimate escapement. For lower sections of the river, however, redds provide a better tool. Carcass data is used to assign species and origins. The WG looked at spatial and temporal distributions to determine if redds belonged to natural areas or to hatcheries. For redds, there is a decrease over time from 2002-2017, but not much change below the restoration reach or in hatchery numbers downstream since they spawn near the dam.

In terms of distance from the dam, redds have become more distributed in the mainstem over the last 15 years. In the early 2000s, redd distribution was at 15 km and in the last four years it's been closer to 40 km at the system scale. When analyzing for reach and site scale, shift in the proportion of downstream redds over time.

Gough noted that new to the synthesis report included analysis of superimposition and dewatering effects on redds in channel rehabilitation areas, which were not in the annual reports. Pre-spawn mortality is highest early in the season, but even when looking at early calendar weeks by sample size, the rates are so low that the numbers are not very reliable. Overall, the Program is not seeing exceptional pre-spawn mortality, which is less than 10%. When looking at it by reach, most occurs in the lower reaches. The analysis suggests that pre-spawn mortality is early in the season and downstream. Dixon asked how this compared to unregulated systems.

Gough answered that in healthy systems there is still some degree of pre-spawn mortality. For the Trinity, it has been pretty low, usually under 10% and typically under 5%.

Gough continued that they looked at pre-spawn mortality in Hoopa to isolate to one area. The highest mortality occurred when flow was lowest, and when temperatures were highest. He noted that this section stood out when looking at temperatures in different areas and pre-spawn mortality by run size. A Hoopa Valley Tribe member commented that the gravel build-up could contribute to the heating and warming of the river, especially this time of year compared to sand bars or canyons. He added that he hadn't seen the river this low in a long time and they needed to flush it again.

The redd superimposition analysis used data from 2009 to 2016 divided by reach and based on mean diameter of redds. The analysis looked at overlaps between redds and potential encroachment on existing eggs and pits. Some degrees of overlap occurred in Reach 1 with bigger spawning years having larger degree of superimposition. In 2014 and 2015, there was less pit disturbance as more redds distributed downstream. Orcutt asked if the analysis separated the fall Chinook. Gough explained that they couldn't distinguish the spring and fall run. The analysis did not see much difference below the restoration reach. DeJuilio added that in the report, but not shown in the presentation, Reach 1 can support 200 redds before significant superimposition occurs and that there is significant superimposition in Reach 1 that affects the spring run Chinook.

Dougan asked if the disturbance in the restoration from bringing more gravel caused the redds to move away from the dam or if it was the increase of juvenile rearing habitat. Gough answered that the restoration efforts on juvenile rearing habitats were bringing more redds down. Dougan noted that they were getting more in Del Loma and asked how long until it reached the North Fork. Gough answered that restoration will reach a limit going downstream and should slow down and settle more spatially. Dougan asked what was needed to get the fish move up to where habitat was created. Gough answered that density would be reached immediately below the dam. DeJuilio added that there wasn't more spawning in Del Loma than Lewiston, just that it was higher than historic levels. Things are redistributing downriver; they've just been concentrated near the dam.

The redd dewatering analysis from 2013-2016 was based on crews reporting 60-70 dewatered redds following emergency high release flows and change from summer to winter base flows. Most had had partially exposed mounds, which were still getting water but the exposure probably desiccated the eggs.

The report is in its final stages. The report also includes an analysis of impacts on spring run Chinook and hypotheses refinements. Orcutt asked if there was any analysis on the productivity for spawn recruitment due to its importance on the Klamath. Gough answered that the report was limited to existing data for the TRRP and that some of that data would be part of the report Bill Pinnix was presenting on. Hillemeier commented that decline of natural spawners should be a concern. Gough commented that natural spawners were still the highest in the restoration reach.

Hillemeier added that while less steep, the TMC should think about how to reverse the trend. Dixon asked if the distinction between spring and fall Chinook was incorporated into the modeling. Gough said that they could make inferences based on the timing. He also noted a genetic study that could help make distinctions in the populations. Pinnix added that the S3 model could track the spring run separate from the fall.

Long-term Juvenile Monitoring on the Trinity River

Bill Pinnix (FWS) started with an update on the other Habitat WG products. The channel rehabilitation work Josh Boyce presented on last quarter is still in draft. Damon Goodman is working on the system-wide analysis through time. The WG expects peer review to start in November. Aaron Martin is working on the habitat capacity assessment from the SRH-2D modeling. If the TMC has questions about those reports, they can reach out to the authors.

Population estimates were analyzed based on weekly and annual estimates of abundance. At Pear Tree, the trend is down over time (2004-2018), but not significant and on track with the downward trend of natural adults. It does not speak to productivity. Hillemeier asked if the populations included fry and smolts. Pinnix answered that it did, but did not include 1+, which are harder to make a determination on. The population estimates were based on fish capture data at trap sites. At Willow Creek, there was a significant positive trend (1989-2018). More juveniles have been getting out of the system. They did a change point analysis to see if there was a shift based on the ROD. Increased water to the river benefits juvenile fish and provides more habitat. The number of juveniles roughly doubled based on mean levels through time. The results indicate that a bigger fish bowl makes more fish, but doesn't address productivity.

Dougan asked if the increase at Willow Creek was due to the change in how the fish were counted, noting that roller traps were used at the mouth of Willow Creek previously. Pinnix answered that the results do not allow for the fish to be split by origin, adding that there was a lot of contribution all over the watershed. He continued that the WG did a stock recruitment model of juvenile production against adult population at Willow Creek and saw an increase in production per adult over time. The result was density dependent, with a shift between pre- and post-ROD and with increased capacity in the River.

Pinnix presented additional analysis that looked at fish size by fork length and week. The analysis found that there were no significant differences until the ROD flows entered the river and then fish populations started to separate at Week 24, where post-ROD fish are significantly smaller than pre-ROD. He noted that the results were pooled across years, which indicates that the cooler water was slowing down growth, as Naman suggested the day before. He added that it could also be density dependent as it was hard to separate the influence of temperature versus habitat saturation. They also looked at biomass, by number of fish, and post-ROD does have more biomass, but later in the summer. The hypothesis is that more fish are hanging out and being produced, but that it does not necessarily result in higher survival for fish.

Topics for December Meeting

Justin Ly opened discussion for December meeting topics.

- Discussion of bylaws Section 605a. Groves had questions on the section.
- Infrastructure and engineering technology from Reclamation in response to the TMC's letter
- Schedule meetings for FY20 meetings
- Response to the REU/TPU request to join the TMC.
- Check-in with Work Groups on Objective and Target Refinement and recommendations for path to finishing them. Hillemeier requested the WG provide information on where they're at, % completed, new targets developed, how much work is left, and what they need to finish.
- Presentations on other completed synthesis reports. LaBanca requested they be scheduled earlier in the day. Hillemeier added that they should include information on what they learned and how it can be applied to management.
- Variable flow progress report on where Reclamation is on implementing them.
- Update on the technical side of a trigger-based hydrograph
- Update on the contract for the Coordinator position

Groves asked if the budget discussion was in December. Dixon answered that the meetings will be set up in the winter and they will iron out the budget in the spring. Hillemeier asked if the agenda was ready for the Refinements meeting and if the facilitator was selected. Dixon answered that Jenny Norris found out only two of the candidates could do it. The facilitators should be reaching out to the TMC to develop the agenda and one will be made at the start of the meeting. Hillemeier suggested Chad be prepared to give a brief overview of his recommendations to keep them on track.

Public Forum

Dougan invited everyone to attend the Hammerin' event this weekend in Willow Creek, noting that the blacksmiths would start their demonstrations that night.

Dougan asked that the TMC consider re-establishing TAMWG and that the TMC should make an effort to reopen it and that in the bylaws it requires them to have a stakeholder group to provide guidance. Dougan asked that TMC look at increasing habitat for steelhead and Coho salmon. He noted that when Coho was declared a threatened species, it closed take of the species. Take is currently allowed for hatchery Coho in Oregon and that there was no reason it couldn't be allowed in Northern California for hatchery. He asked the TMC to increase habitat at Willow Creek and Horse Linto Creek for fish to spawn in.

Ly noted that the TAMWG was suspended by the Department of Interior, not the TMC. Dougan asked that the TMC put in a request to reactivate it as they were losing stakeholder support in Trinity and Humboldt Counties. He added that he knew the suspension wasn't the TMC's responsibility but the Secretary of the Interior's. He has written letter to get it re-established and believed it was important for the committee to make the request as well.

Adjourn Day 2; 2:52 pm