

Final Minutes
TRINITY MANAGEMENT COUNCIL
September 28-29, 2016
Hwy 96, Weitchpec, CA

Day 1, Wednesday September 28, 2016; 10:00 am

Attending Members

Member	Representative Seat
Seth Naman	National Oceanic and Atmospheric Adm. Fisheries, Chair
Don Bader ¹	Bureau of Reclamation, Vice-chair
Mike Orcutt	Hoopa Valley Tribe
Dave Hillemeier	Yurok Tribe
Bruce Bingham ²	Fish and Wildlife Service
Terri Simon-Jackson	Forest Service
Tony LaBanca	California Natural Resources Agency
Keith Groves	Trinity County
Mike Dixon ³	Trinity River Restoration Program, Executive Director
Tom Stokely ^{3,4}	Trinity Adaptive Management Work Group, Vice-Chair

¹ Arrived after Item 2; ² Replaced by Joe Polos on morning of Day 2 via phone, did not attend afternoon Day 2; ³ Non-voting members; ⁴ alternate for Elizabeth Hadley.

Others that attended: Andreas Krause, Kyle De Juilio (Yurok Tribe), Robert Franklin (Hoopa Valley Tribe); Linsey Walker, Jennifer Norris, Caryn Hunt DeCarlo, Eric Peterson (TRRP); Joe Polos, Stephanie Blihovde, (FWS), Justin Ly (NOAA Fisheries); Bill Brock (USFS), Kelli Gant, Mike McKee (Trinity Lake Revitalization); Teresa Connor (DWR), Emelia Berol (Environmental Organizations); Hank Seemann (Humboldt County).

Attending by phone: Ron Mulligan (CVP), Joe Polos Day 2 (FWS).

Notes: Kim Mattson (ENW).

List of Motions that Passed

Keith Groves made a motion to approve the agenda.

Terri Simon-Jackson seconded the motion.

The motion passed unanimously.

Keith Groves made a motion to approve the June minutes as amended.

Tony LaBanca seconded the motion.

The motion passed unanimously.

Dave Hillemeier made a motion that, as requested by TAMWG, TRRP staff develop a response to the issues raised in Mr. Wellock's letter and reply to him by November 1, 2016.

Terri Simon-Jackson seconded the motion.

The motion passed unanimously.

Dave Hillemeier made a motion to approve the budget changes as described in the document FY17 Proposed TRRP Budget Quarterly Meeting—Weitchpec September 28 and 29, 2016 (attached): approve increases of Decision 1 (+\$84,586), keep the \$36,000 in Decision 2 (\$0 change), approve the efficiency cuts in Decision 3 (-\$13,748), approve voluntary savings in Decisions 4 (-\$295,000) for a budget surplus of \$189,042.

Keith Groves seconded the motion.

The motion passed with seven yes votes.

The Hoopa Valley Tribe abstained.

Tony LaBanca made a motion per Decision 5 of the attached FY17 Proposed Budget: to disapprove the four Science proposals saving efficiencies (totaling \$308,371) and have them evaluated by the Fish Workgroup for recommendation to the TMC for the FY18 budget.

Keith Grove seconded the motion.

The motion passed with seven yes votes.

The Hoopa Valley Tribe voted no.

List of Action Items made during the Meeting

Mike Dixon will reply to the Wellock letter by November 1.

Seth Naman will respond to the TAMWG September letter.

Mike Dixon will produce a 2-3 page summary document with a table on compliance monitoring for the TMC December meeting.

Linsey Walker will prepare the 2016 budget actuals for the December meeting.

Seth Naman and Don Bader will continue to serve as Chair and Vice-chair until December.

Andreas Krause will consolidate the written inputs from the TMC on the parameters for flow scheduling and send to Kim Mattson to be included in the September minutes.

The Flow Workgroup will produce more scenarios of winter variable flows for the December meeting.

Don Bader will inquire with Reclamation about ways to accomplish carryover storage regarding the 35,000 AF winter flows.

Mike Dixon will begin development of an outreach plan and possible public meeting regarding the winter variable flows.

Andreas Krause will work with Robert Stewart with real-time flow monitoring for flow releases regarding infrastructure protection.

Mike Dixon or Andreas Krause will develop a one-page write up for more information and options for the house in Junction City for the October teleconference call.

Seth Naman will send to Eric Peterson a draft table with columns by which to organize the TMC motions and incoming and outgoing TMC correspondence.

Seth Naman and Don Bader will look for a response letter from David Murillo on the Lewiston Reservoir options.

Don Bader will inquire with Reclamation on next steps regarding the Lewiston Reservoir options.

Andreas Krause will follow up with USGS on results from their downscaling of their regional climate models and will pass any information to Seth Naman.

Teresa Connor will ask DWR for a presentation to TAMWG and TMC on water year forecasting at a future meeting.

Regular Business

1. Introductions

Seth Naman, Trinity Management Council (TMC) Chair, opened the meeting. He thanked the Yurok Tribe for hosting the meeting and noted that this is where he started his work on the Trinity River as an employee of the Yurok Tribe. Naman asked if there were additions to the agenda. Terri Simon-Jackson noted the June minutes indicated there should be election of officers. Naman said they could handle that during the discussion of bylaws.

Approval of the Agenda

Keith Groves made a motion to approve the agenda.

Terri Simon-Jackson seconded the motion.

The motion passed unanimously.

Approval of the June Minutes

Several edits were made to the minutes by Mike Orcutt, Terri Simon-Jackson, Dave Hillemeier and Seth Naman.

Keith Groves made a motion to approve the June minutes as amended.

Tony LaBanca seconded the motion.

The motion passed unanimously.

2. Open Forum: Comments from the Public

No comments.

3. Report from TAMWG

Tom Stokely, Vice-chair of the Trinity Adaptive Management Working Group (TAMWG) gave an update of the TAMWG meeting this week. He noted two resignations from TAMWG—Liam Gogan and Sandy Denn. Travis Michele is replacing Gogan. He noted a recommendation for changes in the bylaws. These were concerned with teleconference voting and public participation, shifting the voting process to simply majority, TMC member recusals, increased representation on the TMC, and adding TAMWG as a voting member. Stokely also noted the TAMWG discussion on the budget and their recommendation that extra funds go to watershed. Bill Pinnix gave an excellent presentation on smolt trapping that showed increases in recent years. Eric Peterson gave a presentation on the website. Mike Dixon gave a presentation on compliance monitoring. Andreas Krause gave a presentation on new flow scheduling process and variability in winter flows. The next TAMWG meeting will be December 7-8 in Weaverville.

Tom Stokely had attached two letters from the public to his written report—one from Dave Wellock and another from William Koch. Don Bader said they normally do not respond to letters to the editor (Koch's). Tony LaBanca suggested these may be issues of importance and that they follow up in the next six months in a public education manner about flow management. Keith Groves noted it will be difficult to solve a problem a large segment of the public may have about flow with words from the TMC. LaBanca responded that bringing in more clarity may help with education while not change minds. Kyle De Juilio commented that, on the public float, he thought he did see minds change. Mike Orcutt thought the Program should have the ability to respond to any letter and they have responded to Wellock's specific issues and this current letter is of a more broad issue. Tony LaBanca noted that the TAMWG should advise the public to address the letter to the TRRP and that the Executive Director should be able to respond to many of these letters.

Dave Hillemeier made a motion that, as requested by TAMWG, TRRP staff develop a response to the issues raised in Mr. Wellock's letter and reply to him by November 1, 2016.

Terri Simon-Jackson seconded the motion.

The motion passed unanimously.

Action Item: Mike Dixon will reply to the Wellock letter by November 1.

Action Item: Seth Naman will respond to the TAMWG September letter.

4. Federal/Regional Updates

Don Bader, Bureau of Reclamation, gave the Federal and Regional updates.

TRRP Staffing

Bader said he had just received the Executive Director “cert” but has not yet had a chance to go over it and will clarify which way to go by next week. Jennifer Norris is now on staff as the Science Coordinator. She said a few word of introduction. She is originally from New Hampshire and came most recently from Ohio where she was working in wildlife management. Bader said they expect a “cert” next week for the Realty and Outreach position. The Engineer position is being advertised. Linsey Walker is leaving for a new job and will still be helping out as a new person is found for grants manager.

TRRP Refinements Process

Bader said they are ready to go to obtain a contractor to manage the Program review and a solicitation will be sent out soon.

Dave Hillemeier expressed his desire that the contractor will have past experience in adaptive management programs. Mike Orcutt said he was concerned over the loss of time and expressed a desire to have tribal input into the contractor choice. Orcutt also commented that filling the Executive Director needs to move forward more quickly. He also felt the past position descriptions for TRRP position may need to be more carefully worded. Andreas Krause asked if they would be able to seek a contractor from universities or non-profits. Bader thought yes. Krause asked about the selection panel (limited to federal employees), he suggested representatives from both regional offices (Secretaries Office and Regional Office) and from local expertise. He asked if they could review the applicants to ensure there is broader representation.

Klamath Long-Term Plan

Bader said there is a draft out and have gotten comments back. They plan to have a published document for public review by October 25 to December 25.

Information / Decision Items

5. Report from Acting Executive Director

Mike Dixon, Acting Executive Director for the TRRP, gave the Executive Director’s report. He walked the TMC through his written report contained in the members’ packets.

Science Updates

He noted that a written update on Workgroups was included in the members’ packets. He made several comments—Flow is working on a new scheduling process, a riparian DSS is being worked on, IDT is focusing on the flows, Design will be meeting in October 19. One thing Design will address is how to handle changes in designs made in the field. Bruce Bingham asked that any changes be formally documented. Fish Workgroup has been active working on a number of issues.

Implementation

Dixon continued his report noting the Bucktail site is being wrapped up and would be presented later under Item 7.

Compliance

Dixon reported that compliance required a “scramble” to get permits for Bucktail. The new FEMA requirements were an added burden. For example, a Conditional Letter of Map Revision (CLOMR) takes six months to get done as part of the floodplain construction permit. This prompted discussion about the timing of obtaining permits and ways to manage this. Regarding other sites, Deep Gulch and Sheridan will be analyzed in a single NEPA/CEQA document. Lower Dutch Creek may be delayed as they are not allowed to have any impacts on infrastructures within the 100-year floodplain. The current designs cannot accommodate this. Programmatic Biological Assessments are in progress but they may need to add in watershed work.

Dave Hillemeier asked that they have a presentation on the new FEMA requirements for next meeting. Mike Orcutt asked if the FEMA requirements preclude change of meandering river courses. Dixon said it could indeed affect designs if they change the 100-year base flood elevation.

Landowner Issues

The side channel at the Salt Flat Bridge reconnected to the river this summer. There were several landowners that lost water access via infiltration galleries along the side channel because of this. For a number of reasons including the absence of a restoration nexus, the federal Solicitor determined that the government was not responsible for fixing these individual systems. Most of the land owners have drilled new wells.

Logs were accidentally placed on private lands at Sheridan and this has been resolved.

Outreach update

Trinity Salmon Festival is scheduled for October 8. A spawning day is scheduled for October 22 at the hatchery.

Tom Stokely asked if there is a stranding concern in the Salt Flats side channel once the flows drop to 300 cfs. Dixon thought there is a possibility in the lower section and he could check into this. Stokely noted there is no legal requirement to repair the side channels for wells, but it would be a good-neighbor-relationship action if they did restore flows for fish plus they would get the benefits of public relations.

Lunch**Compliance Monitoring**

Mike Dixon gave a slide presentation on compliance monitoring. He described a number of parameters they should be monitoring and noted whether or not the Program is accomplishing that monitoring.

Turbidity is allowed to increase during construction up to 20 NTUs above background or 20 % increase if background is above 20 NTUs. The Program monitors turbidity during construction. Salmon stranding must be monitored on constructed sites following 1.5-year flood event. They sort of do this. Sensitive areas such as wetlands must be surveyed pre-construction. They do this

at every site. There can be no net loss of wetland and riparian vegetation as measured 10 years following construction. They partially do this via a long-term status and trend monitoring. They are required to draft a Riparian Revegetation and Monitoring Plan (RRMP) to guide riparian restoration. The Program only has a draft but a final is being developed and will be ready for TMC review by October 31. Nesting birds are being monitored at pre-construction and areas are avoided or buffered. They do pre-construction surveys for birds. Foothill yellow-legged frogs and Western pond turtles must be surveyed pre-construction and presence should be monitored during construction. This is sort of done via status and trend monitoring. Pre-construction surveys must be done for maternity roosts for bats and dens for ring-tailed cats. They do not do this. Dixon also noted that the 1984 Trinity River Basin Fish and Wildlife Act and the ESA for the TRRP have other requirements for monitoring.

Bruce Bingham opined that the long-term status monitoring for amphibians and birds that the Program is currently doing are not adequate for the current permits. He noted the requirement for pre- and post-construction monitoring and these should use peer-reviewed protocols. Lack of such monitoring could be a serious liability for the Program.

This presentation stimulated a lengthy discussion on compliance monitoring by the TMC. Tony LaBanca appreciated that Dixon is reviewing this and working with staff. He wanted to know what the most important compliance issues to address are and what plan is there to address these. Dixon said they do not yet have a plan but they will need to consider what monitoring needs to be instituted at specific sites and how to develop program-level protocols. Bingham thought they need to list the protocols on their website and do annual reporting on the protocols and document changes adopted. Mike Orcutt strongly urged they cover the whole gamut of broader compliance issues including the FEMA issues. Seth Naman suggested that Dixon develop a write up with a summary table to help guide how to move forward. Bingham thought the monitoring should be built into the budget as a five-year plan and not be up for discussion as to whether it should be funded. The discussion moved to how to develop a monitoring plan—IDT or a separate group with expertise. Hillemeier thought it would be important to have some ideas about monitoring by December so the 2017 projects could incorporate these. Orcutt expressed concern over added pressure on the 2017 budget.

Seth Naman suggested that Dixon prepare a 2-3 page write up with a summary table including agencies, costs, and what is needed, and is doing that is not needed.

Action Item: Mike Dixon will produce a 2-3 page summary document with a table on compliance monitoring for the TMC December meeting.

6. Open Forum

Open Forum was addressed following Item 7. Emelia Berol expressed her interest in watershed work and appreciated more focus on the South Fork and wanted to learn more about the planned work. She said there is a lot of metal debris located in the channel for the first mile upstream of the mouth in the South Fork. She noted it was trapping sediment and is dangerous for kayakers. Seth Naman suggested Berol talk with Dave Hillemeier and Kyle De Juilio as the planned work was a Yurok project. Berol would be able to follow up on the metal with Naman.

7. Implementation Review

Item 7 was discussed before Item 6. Mike Dixon gave a slide presentation on the Bucktail construction process that occurred this past summer. He also referred the members to the map of Bucktail in their packets. He noted several features on the map—the split-flow feature IC-4 that required some changes, a constructed beaver-dam analog, and a side channel, IC-6. Dixon noted

that side channel IC-2 has worked well. A beaver has moved into the beaver-dam analog and that the wetlands located upstream is expected to develop and function well. They salvaged willows that were excavated during side channel construction and these were usable for restoration. He noted several design changes that had to be instituted during the construction—they added vehicle barriers to stop vehicles driving onto the sites and the IC-4 split flow channel and engineered log jams needed to be changed to avoid a boating hazard. Landowners complained about noise. Dixon said they learned more about public relations during this project.

Emilia Berol asked if this was the first time a beaver showed up. Dixon said this was the quickest a beaver showed up. Terri Simon-Jackson said if they expect as much on-site change at Dutch Creek, they need to build that flexibility into the design to avoid problems from people that do not like the project.

8. 2017 Budget

Linsey Walker said she is completing the actuals for the 2016 Budget. She noted she is working with FWS for their actuals. Terri Simon-Jackson asked if they could have this for the December meeting.

Action Item: Linsey Walker will prepare the 2016 budget actuals for the December meeting.

Review of FY 17 Budget Decision Document

Caryn Hunt DeCarlo referred the members to the document titled “FY 17 Proposed TRRP Budget TMC Quarterly Meeting—Weitchpec September 28 and 29, 2016.” This document described the history of suggested changes to the budget since it was approved at the June TMC meeting with the running totals (as she understood the changes from the August and September TMC conference calls). She mentioned that the Forest Service \$250K funding would be de-obligated by Reclamation without TMC vote because the FS watershed project was not in the approved TMC watershed funding at the June TMC meeting. She referred the members to review page three regarding seven decisions the TMC could make regarding the budget. Given the addition of the three new science projects totaling \$285,120 approved in the June TMC meeting and the planned \$250K FS de-obligated funds makes the budget over the available total by \$35,120. She walked the TMC through the seven decisions.

Decision 1 was to approve another three project increases totaling \$84,586. That amount, plus the \$35,120 already over budget, would push the total to \$119,706 over budget. The fourth increase previously discussed with TMC was \$53k for Bucktail paving and DJ and Sean had agreed that it could be covered in the existing FY16 Bucktail construction contract that has surplus funding.

Decision 2 was to keep or remove the hydrologic modeling at \$36K. Hunt DeCarlo noted it was approved by TMC in the budget, but it wasn't displayed or discussed in a way that she felt TMC knew what this item was, so she wanted to bring it up for discussion. She noticed it when the FEMA proposal came in from the Reclamation Technical Service Center (TSC) and was checking to see if this FEMA item was the one already in the budget under Design Support Services (TSC) at \$36,000. She found out instead that this item was the hydrologic modeling.

Kyle De Juilio explained the rationale for adding this project—making the bathymetry more useful and would support the DSS model and sub-models. Mike Orcutt asked why the hydrologic modeling did not go through the Science review process. De Juilio said it supports more than the science portions and it was considered after the science review process. Orcutt noted he is not a

big DSS fan and wants everything evaluated under the same criteria. Dixon said this effort would be used to update their models and is not a new science project. Teresa Connor recalled that the TMC had approved this at the June meeting. Joe Polos said the current SR2HD model will benefit from this and, in turn, it will benefit the fish production model. Andreas Krause said the SRH model was based on the 2011 topography and this data does not include the new topography of the newly constructed sites nor the better data along the channel margins. Dave Hillemeier supported the process of updating models with new data. Bruce Bingham agreed that they do have a process to review work, but this shows we need to have a better budget process so we are not putting projects against projects. Terri Simon-Jackson suggested they move this budget line item to Science for the FY18 budget for better transparency. The decision was made to keep this item in the FY17 budget as approved in June.

Decision 3 was approval of minor savings to 3 projects that were identified as not needed in FY17 and total \$13,748.

Decision 4 was voluntary savings offered in the September 8 call by four TRRP Partners that total \$295K. That amount added to the \$13,748 above totals \$308,748 and, if instituted, which would constitute a surplus to the budget of \$189,042.

Decision 5 was to implement proposed savings efficiencies in four fish science projects totaling \$308,371 or have the Fish Workgroup evaluate the cuts for recommendation to TMC.

Decision 6 was to allocate the potential surplus of \$189,042 to be added to the watershed amount of \$500k or de-obligate less of the FS watershed agreement if the \$308,748 in savings from Decisions 3 and 4 were instituted.

Decision 7 was to balance the budget to make across the board cuts of up to 1.2 % to all projects except Administration and salaries if the above decisions were not implemented.

Terri Simon-Jackson recalled that a motion had been made for Hunt DeCarlo to look for savings and Decision 5 are those proposed cuts. Hunt DeCarlo described that she had looked at RIG and as they had already made \$420K in cuts there were no more cuts found there. The fish science projects savings efficiencies were therefore evaluated for savings efficiencies by FWS and were sent to TMC for consideration in July. She referred the TMC to her Table 2 to show what each decision would cut or add to the budget.

Dave Hillemeier made a motion for the first four decisions.

Dave Hillemeier made a motion to approve the budget changes as described in the document FY17 Proposed TRRP Budget Quarterly Meeting—Weitchpec September 28 and 29, 2016 (attached): approve increases of Decision 1 (+\$84,586), keep the \$36,000 in Decision 2 (\$0 change), approve the efficiency cuts in Decision 3 (-\$13,748), approve voluntary savings in Decisions 4 (-\$295,000) for a budget surplus of \$189,042.

Keith Groves seconded the motion.

The motion passed with seven yes votes.

The Hoopa Valley Tribe abstained.

The TMC next took up Decision 5.

Tony LaBanca made a motion per Decision 5 of the attached FY17 Proposed Budget: to disapprove the four Science proposals saving efficiencies (totaling

\$308,371) and have them evaluated by the Fish Workgroup for recommendation to the TMC for the FY18 budget.

Keith Grove seconded the motion.

The motion passed with seven yes votes.

The Hoopa Valley Tribe voted no.

TMC determined decisions 6 and 7 did not need to be made. The extra budget surplus of \$189,042 will be added to the \$500,000 allocated in the budget for FY17 watershed project per the June motion on this item. Proportional across the board cuts were not needed because of the budget surplus.

9. Bylaws

Seth Naman introduced this topic and projected the TMC bylaws on the overhead screen.

Voting on Teleconference Calls

He opined that the Section 605 regarding telephone voting could be deleted entirely as telephone voting was rarely used. Dave Hillemeier thought it would better to keep the teleconference option but make the calls open to the public. Bruce Bingham expressed that he would not want the telephone calls to become extended four-hour meetings as this would be excessive time. He suggested they could simply schedule a face-to-face meeting to hold a vote. Tom Stokely said the TAMWG recommended that votes by phone be advertised on the website two weeks ahead of time. He also said it would be difficult for him to drive to Weaverville to access the call. It would be better to have a line accessible from his office. Mike Orcutt thought voting should occur in an in-person meeting and use the telephone calls for information. Keith Groves thought he would go more with Orcutt's version and hold a meeting if it were necessary. Naman said he could draft language to allow votes by phone with the public participation but to attempt to hold in-person meetings first.

Changes to bylaws

Seth Naman projected a set of track changes to the Bylaws based on discussions with members. He went over the details of election of officers. The TMC discussed and offered edits.

Bruce Bingham explained an inconsistency in Section 300 that said an addition of entities would be decided by unanimous vote as described in Section 603. His point was that Section 603 described a different process for voting. He suggested dropping unanimous and that they use Section 603 voting rules as that seems to be the way intended for voting. Keith Groves expressed the idea that changes to the entities may be set at the highest standard and maybe should be unanimous. Bingham said currently the TMC body is not necessarily an objective body given they have interests and one vote can veto a motion. Don Bader asked what the ROD says about adding members. Upon looking at the Implementation Plan they did not find clear guidance about adding members but that the eight current members were listed. Mike Orcutt said the rule for unanimous vote for new members was set in the ROD. He said he would not want to move away from that and he thought they should change voting for changes to the bylaws should be by unanimous vote. He thought they should define unanimous. He suggested all eight members need to be present for unanimous votes. Tom Stokely pointed out that the TAMWG has been added as a non-voting member. He also reiterated the points previously made by TAMWG about

voting, and conflict of interest. It was also pointed out that the Bylaws did provide a provision for adding members in Section 300.

Approval of bylaws

Tabled for a future meeting.

Signature of bylaws

Tabled for a future meeting.

Action Item: Seth Naman and Don Bader will continue to serve as Chair and Vice-chair until December.

10. Public forum

No comments.

Adjourn Day 1; 5:00 pm

Day 2, Thursday, September 29, 2016, 9:30 am

Seth Naman, Chair called the meeting to order and noted that the FWS would be attending via phone today. Joe Polos asked about the left over items on the bylaws. Mike Orcutt said he was going to have to leave after lunch today. Naman said he would likely table further discussion of the bylaws until a future meeting.

Regular Business

11. Open Forum

TMC members thanked the Yurok Tribe for yesterday's lunch. It was noted that normally they provide salmon but there is not enough salmon this year and they provided sandwiches.

Information / Decision Items

12. Flow Planning

Seth Naman introduced this topic noting that the dam releases are constant during the winter whereas the tributaries have variable flows from storms. Andreas Krause, Yurok Tribe and Coordinator for the Flow Workgroup, started his slide presentation noting that he would be talking about a series of topics on proposals for a modified flow scheduling process.

Input on DSS Output Matrix Table for WY17 Flow Scheduling

Krause gave explained that DSS is short for Decision Support System which is a set of models which provide output to help guide decisions. An output of DSS is a table of numbers or scores for different scenarios or decisions. The DSS could be used to decide among different flow schedules. Krause showed an example table of output for choosing among three flow releases based on a set of parameters such fish production, healthy river, or policy issues. A copy of that table was included in the TMC members' packets. He asked the TMC to write down on a sheet of paper any new parameters that were important to them and that would like to see on such a

table. Mike Orcutt said that not everyone participated in the DSS workshop in March and, for those, this is a big jump in understanding.

Krause walked the TMC through the parameters in his example table. He showed measures for fish production as abundance and biomass. One question raised was a better delineation between parr and fry and how parr differed from smolts. Other measures of fish production included outmigration dates that were parameterize as the date when 50 % of smolts passed Willow Creek and the date when 80 % of smolts passes Pear Tree. Krause explained these were linked to temperature criteria and is a measure of whether or not most of the fish have out-migrated before the river temperatures exceed a specified threshold. Dave Hillemeier commented on the need to encourage out-migrants to enter the Lower Klamath before water quality had deteriorated in later summer months.

Krause explained the parameters for healthy river. His example table listed water temperatures and these were broken out under an average climate and under a warmer climate. He noted they had chosen exceedance in degree days as a measure. Other healthy river parameters were scour, bar mobilization, depth of scour, Foothill yellow-legged frog production, and black cottonwood initiation potential. Mike Orcutt commented on the parameters and asked if these were addressing the goals and objectives. He asked what is the goal for frogs and if it were regulatory or other. He opined the Program was more fish centric and that should be the focus. Krause responded that it is not a goal to bolster the frog production but it was a goal to not harm the frogs. He also pointed out that the frogs or the black cottonwood were indicators of a healthy river that would ultimately support the fish. Seth Naman asked if they could develop a fish metric such as macro-invertebrate production.

Krause explained the section on risks noting that the fish production and healthy river parameters were mostly positive outputs, the risks were negative outputs. Risk parameters was risk of disease mortality, redd super-imposition, and riparian encroachment. Robert Franklin noted that redd super-imposition is natural and occurs regularly in healthy populations but is not well studied. Terri Simon-Jackson noted a water-quality risk of run off of rodenticides and asked about potential bio-accumulation of toxins in fish. Tony LaBanca asked about recreational access issues and flow affecting that. There was discussion about managing flows for other issues such as fire dipping by air craft or dropping flows for body recoveries.

Krause explained the administrative section as mostly whether or not the flows met policy requirements and the degree of learning potential. Terri Simon-Jackson noted she liked the learning potential and said they could look at a broad context (such as management for landslides following fires) and that they may want to focus on expected results versus actual results.

Krause listed the parameters of interest listed by the TAMWG—hatchery versus natural production, size-frequency of juveniles, juvenile growth, ocean survival, power production, Trinity lake levels, cold water storage, uncertainties on production, levels of sustainable fish production, water quality, and evaluation of past releases success and failures.

Andreas Krause will consolidate the written inputs from the TMC on the parameters for flow scheduling and send to Kim Mattson to be included in the September minutes.

(These written inputs were received after the meeting and are now attached to the end of these September TMC meeting minutes.)

Potential Flow Releases Prior to Official Water Year Determination

Krause introduced the concept of introducing variability in the winter releases from Lewiston Dam. He noted nothing has been decided but he wanted to the TMC to be able to make a decision by the December meeting whether to proceed or not.

Types of releases being considered

He showed a graph of release over a year that showed flat ROD flows during winter of 300 cfs. The concept would introduce a series of about 7 small peaks of up to 1500 cfs during the two months prior to the April high releases. Two of the benefits are increased fish production via increased food access and delay the frog egg hatching. He noted this would need to shift 35,000 acre-feet of water earlier in the year.

Input on sideboards and concerns

Keith Groves asked if they could use previous year's water for this release as it would benefit the lake as storage over winter. Some thought the regulations don't allow this. Andreas Krause noted the 50,000 acre-feet of Humboldt County. Mike Orcutt noted the ongoing court decisions that may affect use of Humboldt water. Don Bader asked why make the decision in December. Krause acknowledged they would not know the water year and the worst case scenario is for a Critically Dry year. He showed a graph of releases over the year for both the ROD scenario of release and the winter variability release. The winter variability would result in a more rapidly declining hydrograph from late April through mid-June. Terri Simon-Jackson asked about the rational for the actual peak timing and noted she would be nervous making such a decision without better information about the effects. Naman agreed and thought a more complex series such as increasing peaks up to April may be more natural. He asked if the macro-invertebrates would recover in a week's time between the peaks. Krause said the timing of the peaks would likely pre-determined and while the Flow Workgroup is asking if they can better mimic natural flow across the watershed but they would not yet ready to do this for yet another year. Krause said their models should be able to predict the benefits effects by December. Robert Franklin defended the introduction of variability but acknowledged the difficulty in matching tributary outputs. Krause said the Flow Workgroup would be able to produce more than one scenario of winter variability. Krause noted that this concept has been taken to the Fish and IDT Workgroups and will be presented to the Physical Workgroup. Tony LaBanca asked about the effects to the original ROD objectives, permitting, and public outreach. Krause said these hydrographs will be run through the models but he understands that the winter variability should enhance most if not all ROD objectives. Krause said they have relatively wide latitude in altering ROD flows regarding NEPA and permitting. It was acknowledged that the public may be surprised by these releases. Mike Orcutt cited past regulations that the primary use of releases were for enhancement of the fishery and the fact that they divert water over the hill before the water year determination and that may remove a lot of impediments. Simon-Jackson noted that there is now a push on the Lower Dutch Creek that a new EIS is needed to replace the 16-year old ROD. Dave Hillemeier asked that another scenario have flows that do not go all the way down to the baseflow and an assessment of how this would affect fry habitat.

Is a Formal Policy Review Needed?

Don Bader asked that they hear more in December on the impact on a Critically Dry year. He also wanted to reiterate the value of having some flexibility and deciding in February. Keith Groves asked that the Flow Workgroup to develop a scenario to allow for the 50,000 acre-feet of falls flows. Seth Naman and Mike Orcutt said the TMC would need to consider this first. Terri Simon-Jackson asked that they consider the information flow path as outlined and she was uncertain of how information is brought forward to the TMC.

Action Item: The Flow Workgroup will produce more scenarios of winter variable flows for December meeting.

Action Item: Don Bader will inquire with Reclamation about ways to accomplish carryover storage regarding the 35,000 AF winter flows.

Action Item: Mike Dixon will begin development of an outreach plan and possible public meeting regarding the winter variable flows.

Workgroup Recommendation to Update the Maximum Fishery Flow / Protected Infrastructure Map

Krause explained that the maximum releases in the spring are modeled along with the tributary flows as a way to assess flood threats to riverside infrastructure. The predicted flow is referred to as the Maximum Fishery Flow. The Flow Workgroup is now able to update the modeled flow. He noted the modeled maximum fishery flow of 11,000 cfs release plus a 100-year tributary event would produce 23,400 cfs in Junction City. This would inundate an existing house and that condition would prevent the 11,000 cfs release. This is the only house threatened under the maximum fishery flow and it is now for sale. Krause noted as they update their model, there could be additional structures threatened. Krause said the Program has already spent \$12 million on infrastructure protection and he is asking if the TMC would like to pursue this. Mike Dixon said they have the authority to spend funds on infrastructure but he did not think they had the funds in FY17. Tom Stokely said he had tried to work with the owner in past years and she was very difficult. Currently the house is listed for \$425K and is likely overpriced as it is in the FEMA floodplain. Terri Simon-Jackson asked if they could go to the BOR and ask for the funds. Mike Orcutt said they would need to get more detail and the TRRP staff could develop options.

Action Item: Andreas Krause will work with Robert Stewart with real time flow monitoring for flow releases regarding infrastructure protection.

Action Item: Mike Dixon or Andreas Krause will develop a one-page write up for more information and options for the house in Junction City for the October teleconference call.

13. Open Forum

No comments.

Lunch

14. TRRP Website

Eric Peterson gave a slide presentation noting that the website is under revision. He said the site was established specifically to represent the Program rather than a government agency, and was built by a TRRP contractor, but was initially static and local staff had little ability to change content. In 2007 they added the IIMS data storage and in 2009 they began transitioning to Online Data Portal (ODP) with dynamic content that they can edit from the Weaverville office. He showed a graph of numbers of hits per day and that averages about 50 hits per day and with maximums of 200 during the flow releases. Flows are the most common pages viewed. The

ODP has 26 GB per month of outgoing data. He is working on a Restoration Action Database that will allow a user to drill down for information on flows and construction projects.

He explained the changes that are coming. In 2014, the Department of Interior mandated that all offices will use a chosen government contractor for cloud hosting services. Peterson believes this will actually provide some positive opportunities. It will allow the Program to have more control of their website but will require a chunk of Peterson's time to make the transition. It will provide an opportunity to make a series of improvements such as a cleaner home page that would be easier to read on cell phones.

Peterson presented some ideas that could be put on the webpage such as flow, redd data, model outputs, and a better mapping interface. Keith Groves noted people may be interested in seeing the historical data. Kyle De Juilio noted the weir data that is sent out weekly may be a good thing to put on the website. Seth Naman said forecasted run size and tribal and sport fishing allocations are of interest to the guides. Robert Franklin finds it difficult to find TMC actions and motion pertaining to say Lewiston Reservoir. Peterson said he would be able to create a table of motions that they could keyword search.

Action Item: Seth Naman will send to Eric Peterson a draft table with columns by which to organize the TMC motions and incoming and outgoing TMC correspondence.

15. Central Valley Operations

Ron Milligan, Operations Manager, Central Valley Operations, Bureau of Reclamation, called in to give a review of Central Valley Operations.

Current reservoir level carryover storage

Milligan reported that current storage in Trinity Lake is 956,000 acre-feet (AF) which is an increase over last year but not a full recovery.

Release temperatures

He reported that river temperatures at Douglas City are within the limits and should be pretty cool and are holding okay. The next 10 days of cooler weather will help.

Cold water storage

Milligan said that 500 cfs is going through Carr Tunnel currently. For the month of September, Carr flows are estimated at 35,000 AF. He estimates that Carr flows will be 280,000 AF for the water year.

Keith Grove asked if they had a final number on the inflow. Milligan did not have it handy at the moment. It wouldn't surprise him if it lagged behind the forecasts particularly for the earlier months. Don Bader thought it was about 1.2 million AF actual versus 1.4 million AF forecasted. Tom Stokely said the storage in Trinity is pretty close to that predicted also. Stokely said the forecasts have been published on the website but they haven't seen them lately. Milligan said during the drought they were asked to do a lot of different forecasts with different assumptions. They would be willing to put together a product for the TRRP. Stokely said the marinas at Trinity Lake would like to see that.

16. Water Temperature/Carryover Storage

Tom Stokely gave a slide presentation on Trinity Lake Minimum Pool and Temperatures. He showed a cartoon of the diversions through Carr tunnel and on to the Sacramento River. He showed a newspaper clipping where Clair Engle promised no damage to the Trinity River and that he would withdraw the legislation if the people of Trinity County were unsatisfied.

Stokely noted temperature problems in the Trinity River. He described that early on, the State Water Board ordered temperature objectives to be met (56 F at Douglas City Bridge between September 15 and October 1). However, this order was somewhat weak as it only applied to water used for temperature control in the Sacramento and did not include withdrawals for other uses. Seth Naman interjected that the Biological Opinion did include these temperature objectives and those in the Basin Plan (60 F) and considers these as binding on the Bureau of Reclamation diversion project.

Stokely noted another problem is that Trinity Lake takes longer to refill than other reservoirs such as Shasta or Folsom. He further noted problems with releases from Trinity Lake and getting cold water to the downstream Trinity Lake—specifically the ability to access cold water and still generate power. Lewiston Reservoir ends up heating the water it receives from Trinity Lake.

Stokely explained some past studies that recommended minimum storage pools to be maintained in Trinity Lake. A Reclamation technical memorandum cited 750,000 AF of carryover may be needed for cool water in the river. Reclamation has considered alternatives to get more cold water—removal of Lewiston Dam, dredging, a tunnel, raising the dam. But these are all very expensive. Trinity County in 1992 hired Balanced Hydrologics to do a study and they estimated a 900,000 AF storage on September 30 was needed to maintain cool temperatures. Under an extreme drought, the storage would need to start at 1.25 million AF to end up with 634,000 AF at the end of the summer and maintain cool temperatures. Another study examining effects of raising Trinity Dam concluded that, under the range of ROD releases, and a 600,000 AF minimum pool, raising the dam would have no effect on the amount of storage water. It would have positive effects at 1.2 million AF of storage, but this would also have impacts on the CVP.

Stokely commented on the effects of the drought and noted fish kill at the TRH in 1977. He also noted that climate change will bring more warm rain and warming in the reservoir.

Stokely offered a set of solutions—adopt carryover storage of at least 900,000 AF and up to 1.2 million AF, adopt water banking, and reduce water exports. Stokely has been trying to get the SWRCB hearing promised in 1989 to conform diversions to instream fisheries flows, to incorporate North Coast Basin temperature standards, and adopt reservoir cold water storage measures.

Justin Ly said the CVP consultation will be re-initiated in the next few years and will include the Trinity basin. Stokely asked that the process include temperature standards and minimum pool requirements. Robert Franklin suggested staff begin summarizing expected changes as a result of climate change and the Program begin to consider this.

17. Lewiston Power Plant Retrofit

Keith Groves passed out a handout describing options for the Lewiston power plant modifications. The Trinity Public Utilities District (TPUD) is proposing to replace the existing 350 kW plant with a 2.2 MW plant. An EA and FONSI were prepared in 2011 for this. Due to cost overruns and drops in green energy values, the project was put on hold. One added option, not addressed in the EA, is to lower the water intake on Lewiston Reservoir by 30 feet to access more cold water. Groves thought the additional costs would be \$1.8 million and much cheaper than the other options (raising the dam, building a tunnel etc.). TPUD would need this extra

funds to achieve this add on. Andreas Krause noted that this option would allow better ramping rates at low flows on the Trinity River.

Robert Franklin suggested they could model how much more cold water they may get from this option. This could be done as part of a new amended NEPA document. Dave Hillemeier thought access to the extra 30 feet of cold water looked like a good thing. Seth Naman cited a letter to David Murillo Reclamation Regional Director asking for more information on Lewiston Reservoir options.

Action Item: Seth Naman and Don Bader will look for a response letter from David Murillo on the Lewiston Reservoir options.

Action Item: Don Bader will inquire with Reclamation on next steps regarding the Lewiston Reservoir options.

Andreas Krause noted that the USGS has done some downscaling from the regional climate models and they may be able to present some of their findings at the December meeting.

Action Item: Andreas Krause will follow up with USGS on results from their downscaling of their regional climate models for possible presentation at the December meetings.

18. Public Forum

Kelli Gant noted a past presentation to the TAMWG from the Department of Water Resources and Gant said there were several errors or mis-information being used in the model to forecast hydrology for the water year. She said the agencies were not interested in offers of help from her or other local sources of information. She suggested they get an update on this to find out more about their model and forecasts.

Action Item: Teresa Connor will ask DWR for a presentation to TAMWG and TMC on water year forecasting at a future meeting.

19. Action Items

Action items were reviewed. The actions are listed at the beginning of the minutes.

Adjourn 3:30 pm

TRINITY MANAGEMENT COUNCIL

Trinity River Restoration Program Office

Hwy 96, Weitchpec, CA

Agenda for September 28-29, 2016

WebEx and Call in information are below**Wednesday, September 28, 2016**

<u>Time</u>	<u>Topic, Purpose and/or Decision to be Made</u>	<u>Discussion Leader</u>
<i>Regular Business:</i>		
9:30	Introductions: ▪ Welcome ▪ Approval of Agenda ▪ Approval of June minutes	Seth Naman, Chair
10:00	Open Forum: Comments from the public	Seth Naman
10:15	Report from TAMWG	Elizabeth Hadley
10:45	Federal/Regional Updates ▪ TRRP staffing update ▪ TRRP refinements process update ▪ Klamath Long-Term Plan update	Don Bader, Vice Chair
11:15	Break	All
<i>Information / Decision Items:</i>		
11:25	Report from Acting Executive Director ▪ Work Group Quarterly summary ▪ Science Update ▪ Well and landowner issues ▪ Outreach update ▪ Compliance issues	Mike Dixon
11:55	Open Forum: Comments from the public	Seth Naman
12:00	Lunch	All
1:00	Implementation Review ▪ Review of 2016 construction projects ▪ Successes and challenges ▪ Lessons learned	Mike Dixon
1:30	2017 Budget ▪ Review of FY17 Budget Decision document ▪ Current 2017 budget shortfall ▪ Decision items to balance 2017 budget	Linsey Walker/Caryn Hunt DeCarlo

2:30	Break	All
2:45	2017 Budget Continued	Linsey Walker/Caryn Hunt DeCarlo
3:30	Bylaws ▪ Changes to bylaws ○ Teleconference voting ○ Succession planning ▪ Approval of bylaws ▪ Signature of bylaws	Seth Naman
4:15	Public forum	Seth Naman
4:30	Adjourn	
6:00	Group Dinner-Location TBD	

Thursday, September 29, 2016***Regular Business:***

9:30	Open Forum: Comments from the public	Seth Naman
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Information / Decision Items:

9:45	Flow Planning ▪ Input on DSS output matrix table for WY17 flow scheduling ▪ Potential flow releases prior to official water year determination ▪ Types of releases being considered (informational) ▪ Input on sideboards and concerns ▪ Is a formal policy review needed?	Andreas Krause
10:45	Break	All
11:00	Flow Planning Cont. ▪ Developing a public outreach plan for WY17 flow scheduling and release ▪ Potential request for funding to support riparian DSS modeling for WY17 flow scheduling ▪ Precision of water volume conversion factor ▪ Workgroup recommendation to update the Maximum Fishery Flow / protected infrastructure map	Andreas Krause
11:50	Open Forum: Comments from the public	Seth Naman
12:00	Lunch	All
1:00	TRRP Website	Eric Peterson
1:30	Central Valley Operations ▪ Current reservoir level, carryover storage ▪ Release temperatures ▪ Cold water storage	Reclamation

2:00	Water temperature/carryover storage	Tom Stokely
2:45	Lewiston Power Plant Retrofit	Keith Groves
3:30	Public forum	Seth Naman
3:45	Action items	Seth Naman
4:00	Adjourn	

Webex and Call in Information:

Day 1 - TMC Meeting

Wednesday, September 28, 2016

9:00 am | Pacific Daylight Time (San Francisco, GMT-07:00) | 8 hrs

<https://trtp.webex.com/trtp/j.php?MTID=m7036665dc77e4a86454e2276849fd9ea1-408-792-6300> Call-in toll number (US/Canada)

Access code: 800 785 410

If necessary, password: PiayHWT2

Day 2 - TMC Meeting

Thursday, September 29, 2016

9:00 am | Pacific Daylight Time (San Francisco, GMT-07:00) | 8 hrs

<https://trtp.webex.com/trtp/j.php?MTID=m3831e579763ad6fae74d90e6a75d41e11-408-792-6300> Call-in toll number (US/Canada)

Access code: 801 729 421

If necessary, password: yBmWvsY3

Attachments**Notes from Andreas Krause collected during the Flow Planning, Item 12:**

1. what is the size cut off of parr and can we break out smolts?
2. important to model lower Klamath water quality conditions in addition to disease conditions relative to outmigration timing
3. figure of outmigration timing
4. develop a drift metric
5. likelihood of tributary flow occurring with a ROD release that affects infrastructure
6. is redd super-imposition bad
7. CA Fish and Game will identify metrics to estimate flow impacts on recreation
8. include consideration of construction impacts
9. how to flows impact coho recovery efforts and mandates? need to include coho in SSS
10. the EIS ramping rates apply to emergency ramp down situations
11. learning potential metric – should include consideration of large scale learning opportunities e.g. fire, large sediment inputs
12. need to evaluate predicted vs actual responses to the flow releases
13. can the variable winter flow volume be carried over into the next water year
14. justification for winter baseflow variability needs to be more than just increased production. Include some consideration of a more natural looking release. don't always drop back down to 300 cfs. Why are we considering this now? what are the tradeoffs in conducting variable winter flows? physical workgroup needs to also provide input (in addition to the input already received from the fish workgroup and IDT).
15. variable winter flow recommendation must come along with a recommendation for monitoring /budget to evaluate the proposed releases. also need to include a public outreach plan (how and when to outreach).
16. consider another IDT meeting prior to Dec to consider variable winter flows
17. Present Flow workgroup recommendations on variable winter flows to the TMC in Dec. After that presentation, the TMC may choose to defer the decision on potential variable winter flows until February.
18. Andreas to develop a 1 page brief on the house in Junction City located within the Maximum Fishery Flow inundation boundary.
19. Reclamation to develop a real-time flow monitoring plan to protect infrastructure.

Written input from TMC members regarding desired information for the decision support system model output table collected by Andreas Krause during the Flow Planning discussion Item 12:

1. fish abundance:
 - a. spring and fall run chinook, steelhead, coho (natural and hatchery)
 - b. number of natural smolts produced from trinity basin (at willow creek trap site)
 - c. number of natural smolts produced from trinity basin above North Fork Trinity (at pear tree)
 - d. condition factor of smolts produced at trap sites at pear tree and willow creek
2. fish habitat
 - a. amount of optimal (and other levels) of fry habitat produced at a range of flows following (not during) the geomorphic peak release
 - b. habitat conditions experienced by fry and parr salmon in the upper trinity from emergence to emigration
3. fish outmigration timing
 - a. timing of smolt arrival to lower Klamath relative to juvenile disease and water quality conditions in the lower Klamath
4. fish size
5. fry parameters related to abundance, forage, predation
6. flow variability (CV) December to May
7. temperature metrics
8. sediment mobilization
9. insect drift forage
10. leaf litter / organic debris mobilized
11. healthy river
 - a. large wood recruitment
 - b. gravel movement
 - c. water temperature
 - d. water quality (marijuana grow runoff)
 - e. some metric for riverine / riparian mammals e.g. bank beavers, otters which could be hampered by timing / volume flows
12. yellow legged frog habitat and reproduction
13. western pond turtle reproduction. habitat impacts
14. recreation (sustainable)
15. rural economic interests (sustainable)
16. riparian vegetation health
17. hatchery? genetic risk
18. wildfire risk assessment – retardant, dipping
19. road density (sediment delivery risk)?
 - a. undersized culverts
 - b. barriers to tributary access. tributary access? Risk?
 - c. road maintenance
20. human health? Risk?
 - a. accumulation of toxins in fish (e.g. rodenticide)? refer back to water quality.
21. biological impacts of emergency rampdowns
22. context – scale up of down
23. learning: evaluate model predicated vs what actually happened.
24. vegetation parameter
 - a. the existing cottonwood works
 - b. also similar willow and cottonwood reproduction, timing, dates, window

25. loss of recreation days to public
 - a. other social
 - b. trinity lake / cold water pool
26. Trinity lake level on 6/19, 8/1, and 9/1
27. construction impacts – work period / timing
28. water temperature – various locations
29. water quality in the lower Klamath
30. infrastructure risk: likelihood of exceeding “maximum fishery flow” inundation due to historic / predicted storm intensity / frequency
31. specify objectives – what are the flow deviations from the ROD and why
32. are we within the ROD EIS criteria
33. is a formal policy review needed?
34. does the flow workgroup consider potential fall flow augmentation flows. late summer early fall schedule.
35. Objectives: as identified by congress
 - a. restore chinook to pre-TRD levels of abundance
 - i. 63,000 fall chinook
 - ii. 9,000 spring chinook
 - b. tie to ROD – healthy river attributes
 - i. concept – build healthy environment (house) and fish will start to recover in order to support tribal and non-tribal fisheries
 - c. wildlife: no pre-ROD goal. so wildlife / riparian attributes need to be supportive of restoring chinook to pre-TRD levels
 - d. ESA: need to shift to ESA. recovery and sustainable fishable levels of abundance – contribution between pre-TRD coho recovery and NOAA baseline juvenile population