TRRP Flow Workgroup Meeting Summary
Hoopa Tribal Fisheries, Hoopa, CA
September 19, 2018

Participants

Mike Dixon (BOR), Robert Franklin (HVT), Todd Buxton (BOR), Kyle De Juilio (YT), Seth Naman (NOAA), Ken Lindke (CDFW), Galen Anderson (USFS), John Bair (McBain Assoc.), Scott McBain (McBain Assoc.), Wes Smith (NMFS)

Actions Items

- Workgroup members will provide comments on these notes, revised flow metrics, and the draft flow portfolio to Buxton by **9/28**.
- Naman will inquire with NOAA and Buxton will inquire with BOR on the status of CVPIA reinitiation of consultation and report findings to workgroup in a conference call on **10/1**.
- DeJuilio, Franklin, and McBain will research the regulatory and scientific requirements for changing the timing and magnitude (but not volume) of ROD flows to inform the hydrograph component action review and report to workgroup members in a conference call on **10/1**.
- Buxton will investigate how an exponential law can be used to provide variable up- and down ramp rates at Lewiston that vary as a continuous and explicit function of discharge without exceeding EIS rates and provide results to the flow workgroup by **9/28** for discussion in conference call on **10/1**.
- Flow workgroup members will review flow study and IAP objectives and other objectives derived following publication of these documents and provide their recommended list of attainable and measurable objectives to Buxton by **10/26** for inclusion in the flow release portfolio.
- Buxton will share proposed and implemented hydrographs for WY06-18 with workgroup by 10/12. Workgroup members will review these and provide Buxton 3 to 5 of their favorite hydrographs for each water year type by **10/26**.
- Naman will add text to draft SOD memo explaining the flow workgroup's preference for ramp rates on Trinity River to be based on those observed on undammed regional rivers, which can exceed EIS maximum ramp rates, by **11/1**.

Notes

The flow workgroup discussed the outline for the flow release portfolio that is in progress, with a targeted date of completion 10/1/2019. The purpose of the portfolio is to give a basis for designing spring flow releases that reflect lessons from past flow releases and provide opportunity for customization to recent environmental conditions to help meet flow release objectives by WY type and maximize benefit to the river ecosystem. The basic outline of the portfolio is that an overview of hydrographs that have been proposed or implemented in the past will be provided, and from this past work, preferred hydrographs for each water year type will be chosen by members for discussion in the next workgroup meeting. From this discussion, several

hydrographs for each WY type will be chosen as the focus in the portfolio, which will enable users to use the hydrographs as a template for customizing flow releases to relevant and perhaps unique conditions that could influence Trinity River ecosystem flow requirements. The portfolio will be a living document, updated as necessary as learning about flow release effects continues through time.

Discussion of the hydrograph component action review outline then occurred. This report would reevaluate hydrograph components and flow management targets, such as temperature objectives for fish, with the purpose to update knowledge on the appropriateness of current goals and objectives and how flow releases may need to change to better meet restoration objectives. This effort would not be limited in consideration to a duration of the year, but consider the entire duration of all water year types, and how flow rates and timings may need change to better meet ROD objectives utilizing ROD water volumes. Discussion of the outline quickly revealed the magnitude of this effort and hurdles to accomplishing its purpose. De Juilio, Franklin, and McBain agreed to work at determining the regulatory (EIS, NEPA, and others) and scientific processes required for success in modifying how ROD water is used on the Trinity River. Timing of this effort was also considered, and undertaking this effort while the current CVPIA reconsultation is underway seemed advisable to the group. Naman and Buxton will therefore provide information on the status of the reconsultation and whether it is advisable or even possible for the hydrograph component action review to be included in this process.

The group discussed approaches for recommending up- and down ramp rates for safety of dam releases from Trinity and Lewiston dams. Naman's analyses of ramp rates based on the 15-minute flow record for the Salmon River at Somes Bar and Trinity River above Coffee Creek indicate that full natural flow would increase and decrease much faster than EIS rates allow. Naman's analyses also indicate that ramp rates based on the 15-minute flow record are very much faster than ramp rates based on daily average flows at Lewiston prior to Trinity dam closure that occurred in 1960. Based on Naman's work, the group agreed that maximum ramp rates at Lewiston should be higher than EIS ramp rate restrictions, but any recommendation to this effect would be ignored by CVO. Therefore, Naman will add text to SOD memo explaining the flow workgroup's preference for ramp rates on Trinity River to be based on those observed on undammed regional rivers, which can exceed EIS maximum ramp rates. The group also agreed that ramp rates should vary with discharge and be at their maximum at high discharges (>6,000 cfs). Buxton agreed to evaluate recommended SOD ramp rates with data of a smaller time step than daily average from a regional gage using the exponential law to determine coefficients that could be used to meet these objectives.

De Juilio and Bair presented language revising the flow metric pertaining to riparian vegetation to read "inundate floodplain surfaces <4,500 cfs for at least 21 days to facilitate natural riparian regeneration between May 1 and June 20".

A date for the next flow workgroup meeting will be set in the conference call on 10/1/2018.