



— BUREAU OF —  
RECLAMATION

# Possible Experimental and Management Actions That May be Implemented in the Next 12 Months

October TWG Meeting  
October 13-14, 2021

# Objectives

- Introduce “menu” of LTEMP experiments for consideration in the next 12 months.
- Discussion of Process



# LTEMP Process for Experiments

- Annual Reporting and TWG meetings
- Notification and Consultation to Tribes & PA Parties
- Implementation / Planning Team Recommendation
- DOI decision

## 1.4 COMMUNICATION AND CONSULTATION PROCESS FOR ALTERNATIVE D

To determine whether conditions are suitable for implementing or discontinuing experimental treatments or management actions, the DOI will schedule implementation/planning meetings or calls with the DOI bureaus (USGS, NPS, FWS, BIA, and Reclamation), WAPA, AZGFD, and one liaison from each Basin State and from the UCRC, as needed or requested by the participants. The implementation/planning group will strive to develop a consensus recommendation to bring forth to the DOI regarding resource issues as detailed at the beginning of this section, as well as including WAPA's assessment of the status of the Basin Fund. The Secretary of the Interior will consider the consensus recommendations of the implementation/planning group, but retains sole discretion to decide how best to accomplish operations and experiments in any given year pursuant to the ROD and other binding obligations.



# Potential LTEMP Flow Experiments

## Water Year 2022

GCD Experimental Flow	Duration	Implementation Window
Fall HFE	<del>up to 96 hours</del>	<del>October – November</del>
<del>Extended Duration Fall HFE</del>	<del>97–192* or 97–250 hours***</del>	<del>October – November</del>
Spring HFE <sup>Δ</sup>	up to 96 hours	March – April
Proactive Spring HFE <sup>Δ◇</sup>	24 hours**	April – June
Trout Management Flows	up to 3 cycles/month for 4 months	May – August
Macroinvertebrate Flows	target 2-3 replicates	May – August

\* First test not to exceed 192 hours

\*\* First test 24 hours

\*\*\* After first test, up to 250 hours

Δ no Spring HFE in same WY as extended duration Fall HFE

◇ no proactive Spring HFE in same WY as sediment-driven Spring HFE



# High Flow Experiment Timeline

## Spring HFE, sediment triggered

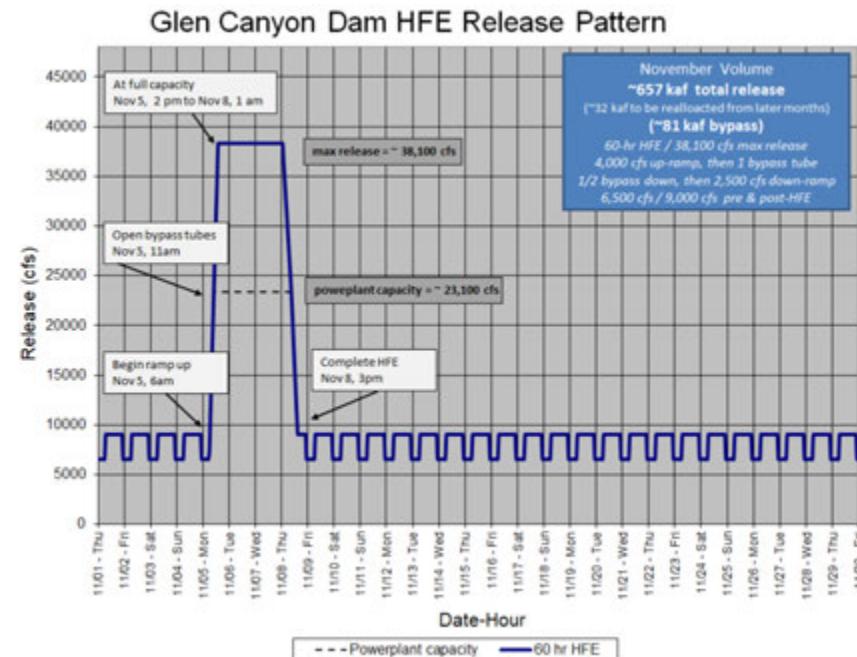
- Sediment accounting: Dec 1 – June 30
- Implementation / Planning Team decision: late February
- Possible implementation: March-April

## Spring HFE, proactive

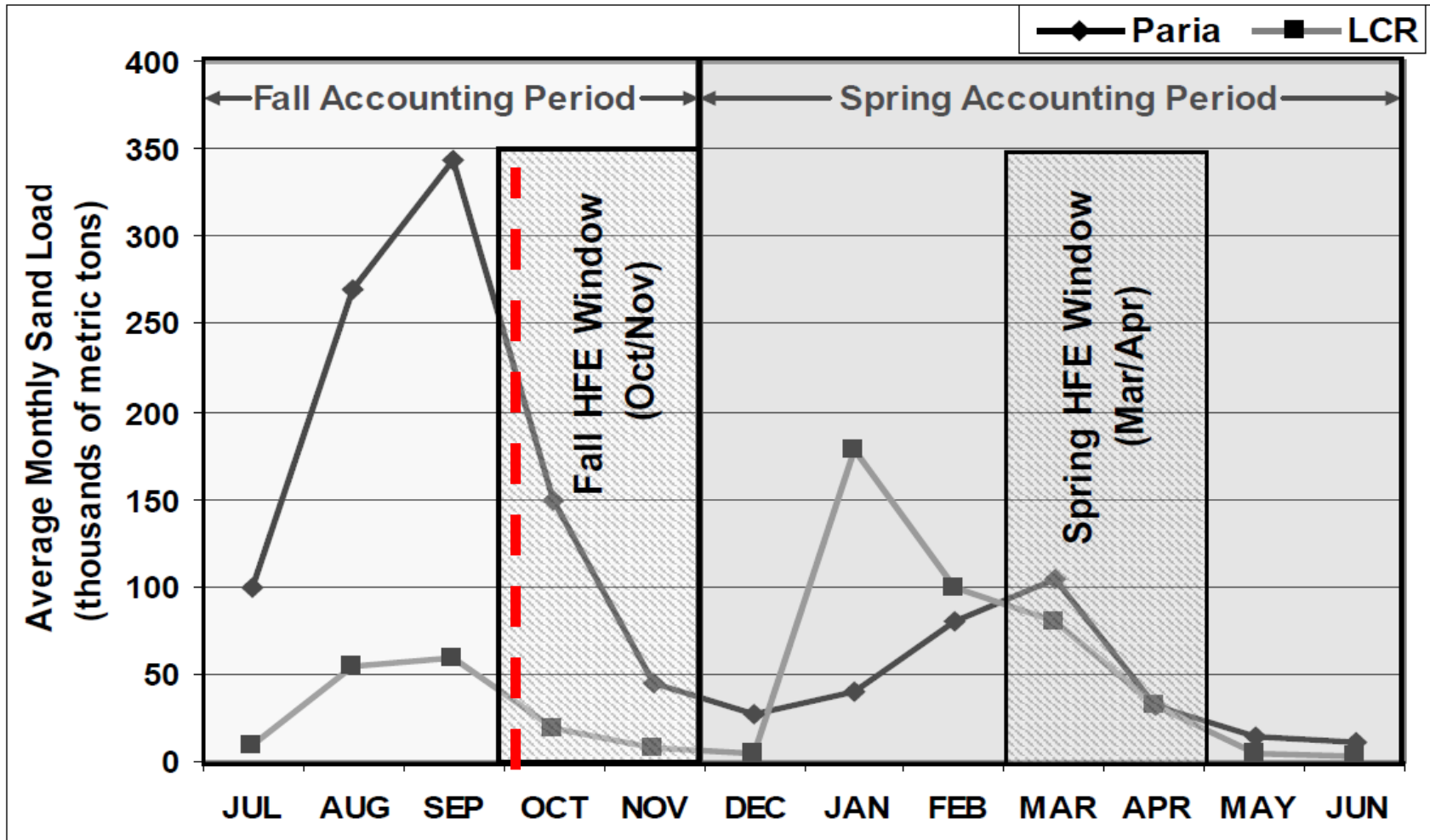
- Equalization (GCD releases  $\geq 10$  maf)
- Planning Team: late February
- Possible implementation: April-June

## Fall HFEs, sediment triggered

- Sediment accounting: July 1 – Nov 30
- Implementation / Planning Team: early September
- Possible implementation: October – November

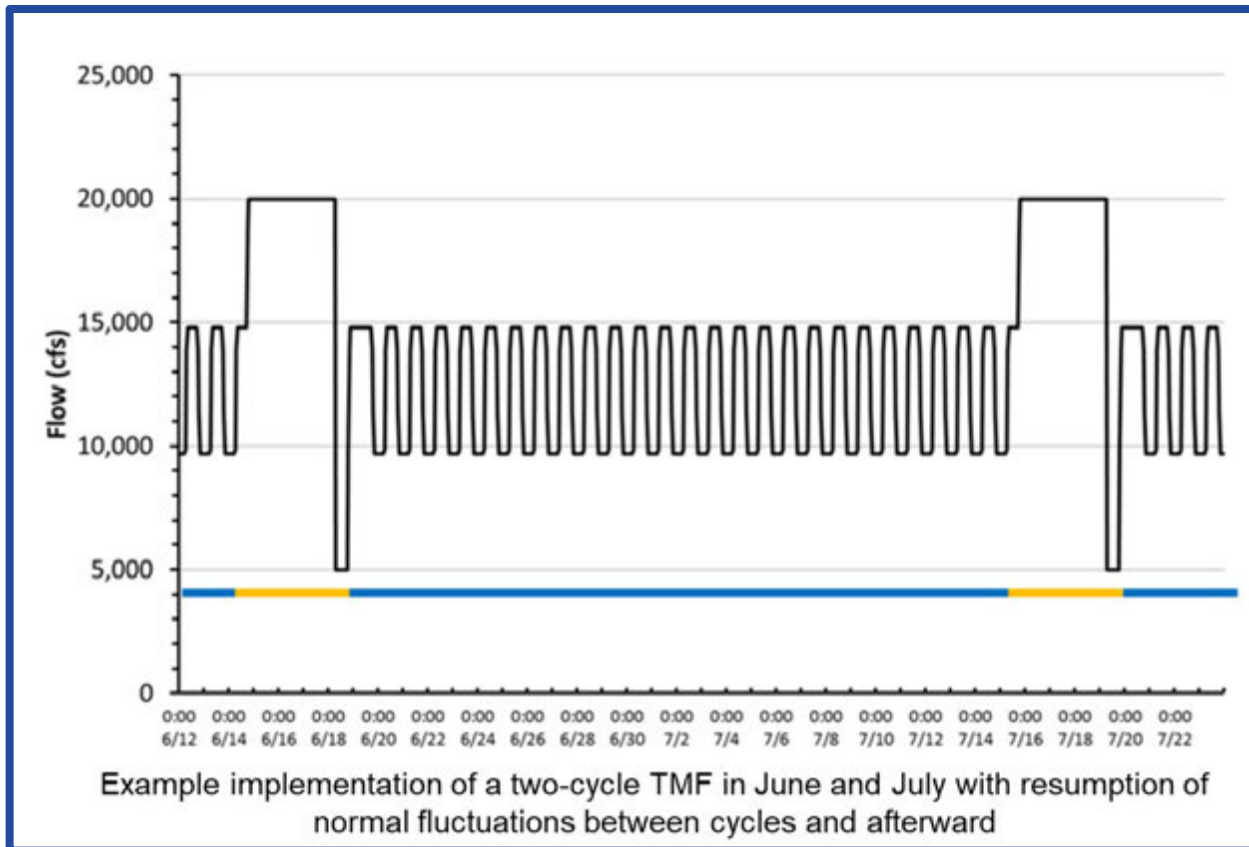


# HFE Accounting & Implementation Windows



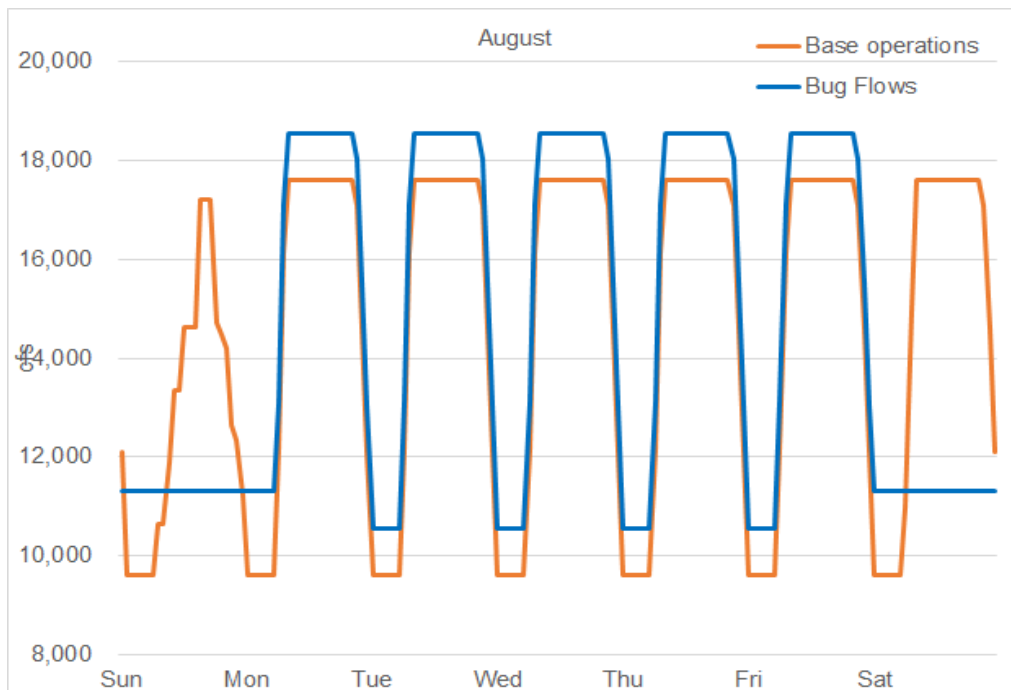
# Trout Management Flows

TMFs are a special type of fluctuating flow designed to reduce the recruitment of trout by disadvantaging YOY trout



# Macroinvertebrate Flows

“Bug Flows” Objective: Improve food base productivity and abundance or diversity of mayflies, stoneflies, and caddisflies



- “Give bugs the weekends off”
- Weekend stable low flows from May-August
- Eggs laid on weekends never dry
- Tech Team 2021 considered a 4<sup>th</sup> year, needed more info.
- Upcoming synthesis report and external review.





# Bug Flows: Next Steps

- **GCMRC Bug Flows Synthesis & Peer Review.**
  - **GCMRC Bug Flows Synthesis Report Draft:**
    - With peer review panel now.
    - Distributing draft to TWG soon.
  - Independent review panel– Oct start, Jan deliverable.
  - Both the synthesis report and peer review report available at start of new year for consideration for the PI Team.



# Summary and Budget Considerations

- LTEMP flow experiments and flow actions for WY21 are complete.
  - No spring or fall HFEs in FY21 ✘
  - Bug Flows not recommended in FY21 ✘
  - Completed Spring Disturbance Flow in FY21 ✓
  - Remote Sensing Overflight – Memorial Day Wknd FY21 ✓
  - No fall HFE in FY22 ✘
- WY22 LTEMP Experiments: \$350,000 in Experimental Fund available.
  - Spring HFE accounting period begins: December 1
  - Bug Flows – Report, peer review, and P/I calls to come.



Questions?



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