



— BUREAU OF —  
RECLAMATION



# WY 2022 LTEMP Experiments and Process Updates

Adaptive Management Work Group Meeting

May 18, 2022

# 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.



# Planning and Implementation Schedule Bug Flows 2022

		Monday	Tuesday	Wednesday	Thursday	Friday	
7-Mar	Week 1	PI Transition: Spring HFE --> Bug Flows			PI Team #3 (2 hrs)		Potential Tribal Consultation
14-Mar	Week 2	AZ Spring Break					
21-Mar	Week 3				PI Team #4 (2 hrs)		
28-Mar	Week 4	AMWG/TWG Webinar & Notified Tribes					
4-Apr	Week 5	PI Team #4.5			PI Team #5 (2 hrs)		
11-Apr	Week 6	Leadership Team	TWG Meeting		DECISION WINDOW		
18-Apr	Week 7	Power Scheduling, Coordination for Operations and Monitoring, and Public Notification & Outreach /					
25-Apr	Week 8						
2-May		IMPLEMENTATION WINDOW					

- **AMWG/TWG Webinar** - timed close to recommendation, but prior to decision calendared following PI Team #1
- **Formalize written comments** – Submitted to Leadership w/ Technical Report
- **Notification to Tribes** – Maintain contact list; Proactive communication w/ liaison
- **Schedule Review** – Request for feedback



# Potential LTEMP Flow Experiments Water Year 2022

GCD Experimental Flow	Duration	Implementation Window
Fall HFE	up to 96 hours	October - November
Extended Duration Fall HFE	97- 192* or 97-250 hours***	October - November
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

## WY 2022 Related Activities:

- [Drought Response Ops at GCD](#) – Lower winter releases, reallocation
- Consultation w/ Tribes re: non-native fish management
- Planning/Implementation Process Review



# 2022 Bug Flows Consideration

- **AMWG/TWG Informational webinar (3/30)**
  - Request for comments by Friday, April 8
    - Fly Fishers International/Trout Unlimited Recreational Anglers
    - Colorado River Energy Distributors Association
- **Technical Recommendation Report (4/8)**
  - Implement Bug Flows May 1 – Aug 31, 2022
  - Adverse effects to hydropower; defer on “unacceptable”
  - Uncertainty in hydrology, operations, resources →
    - Bi-weekly PI Team coordination May – August
    - New conditions, unanticipated effects, potential off-ramps
  - Further consideration of design improvements



# 2022 Bug Flows Implementation

- Implementation approved  
April 26, 2022
  - H750 hydrograph
  - PI Team meeting bi-weekly
  - Off-ramps available, if warranted
- 
- Future Action Item:



IN REPLY REFER TO:  
UC-100  
2.1.1.04

United States Department of the Interior

BUREAU OF RECLAMATION  
125 South State Street, Room 8100  
Salt Lake City, UT 84138-1102



## Memorandum

To: Daniel Picard, Deputy Regional Director  
Upper Colorado Basin - Interior Region 7, Bureau of Reclamation

From: Wayne G. Pullan  
Chair, Glen Canyon Leadership Team  
Acting Secretary's Designee to the Glen Canyon Dam  
Adaptive Management Program

WAYNE PULLAN

Digitally signed by WAYNE  
PULLAN  
Date: 2022.04.26 07:58:44 -08'00'

Subject: Approval of Recommendation for Macroinvertebrate Production Flow Releases at  
Glen Canyon Dam in Water Year 2022

Finally, the PI Team recommends further consideration by the GCDAMP to refine hypotheses, specify measures of success, and explore potential design improvements for the Bug Flows experiment. Such consideration would be subject to direction from the Secretary's Designee and pursued in a manner consistent with the operating procedures of the AMWG and the TWG.

THANK YOU !!!



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# Resource Considerations

1. Water quality and water delivery
2. Humpback Chub
3. Sediment
4. Riparian Ecosystems
5. Historic properties and traditional cultural properties
6. Tribal Concerns
7. Hydropower production and WAPA's assessment of the status of the Basin Fund
8. Rainbow Trout Fishery
9. Recreation
10. Other Resources

## → Other Considerations

- Ops uncertainty – annual
- Ops uncertainty – monthly
- Non-native fish

Reference: 2016 LTEMP ROD, p. B-8,

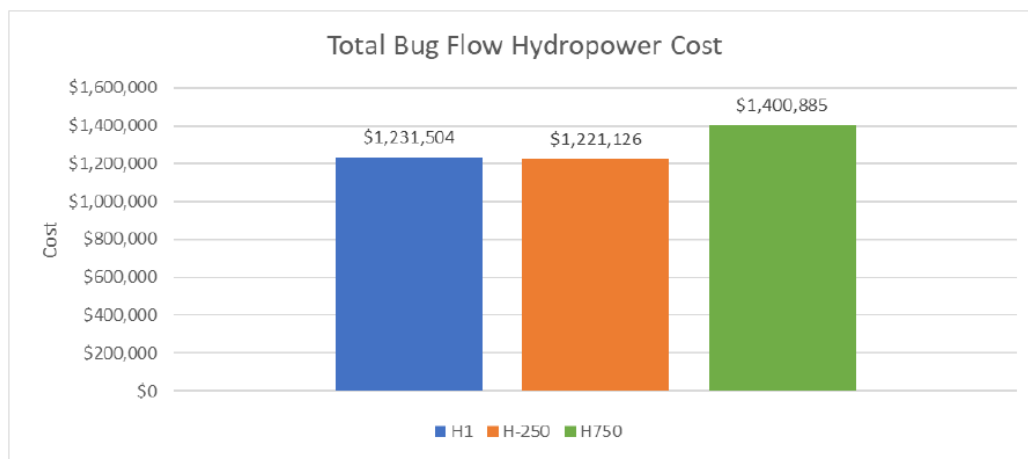
Section 1.3 Implementation Process for Experiments Under Alternative D





# Basin Fund Status & Impacts

- **Projected Basin Fund Decline**
  - → \$83M by end of FY22
- **Projected costs of FY22 Bug Flows: about \$1.4M**



- **Prior year costs**

- FY18 – actual \$165K (estimated \$335K) (H1000)
- FY19 – actual \$327K (estimated \$332K) (H750)
- FY20 – actual TBD (\$750K-\$1M) (estimated \$407K) (H750)

