



United States Department of the Interior

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

IN REPLY REFER TO:
UC-731
ENV-1.10

MAR 06 2017

Mr. Wally Rist
Grand Canyon Private Boaters Association
809 W. Riordan Road
Suite 100, #431
Flagstaff, AZ 86001

Subject: Response to Grand Canyon Private Boaters Association Regarding High Flow Experiment (HFE) Recommendations

Dear Mr. Rist:

Thank you for your December 19, 2016, letter enclosed with observations and comments regarding the recently concluded HFE from Glen Canyon Dam. Your letter includes the recommendation to consider a longer ramp down duration for future HFEs to minimize calving and promote gently sloped beaches.

Under the recently signed Long Term Experimental and Management Plan Record of Decision (LTEMP ROD), HFEs are important experiment that will be conducted over the next 20-years when conditions warrant and we will continue to learn from the results of each HFE. An important step in the LTEMP HFE Protocol is the consideration of new science, the results from past HFEs, and an evaluation of the status of resources. Recommendations such as a longer HFE ramp down duration will be considered and evaluated through the adaptive management framework of the LTEMP.

A longer HFE ramp down has been considered for past HFEs and was implemented for the 2012 HFE. For that HFE, evidence suggests that the longer ramp down did affect sandbar shape for some sites. Because there is a constraint on HFE duration, the longer down-ramp has a tradeoff of shortening the duration of the HFE peak, which likely results in less overall sediment deposition. However, we do not currently have sufficient data to analyze the precise tradeoff between longer time for the peak versus a longer down-ramp. We continue to learn with each HFE. Each time we plan an HFE, results from previous HFEs are incorporated in the decision for the HFE ramp-up, peak magnitude, duration, and down-ramp.

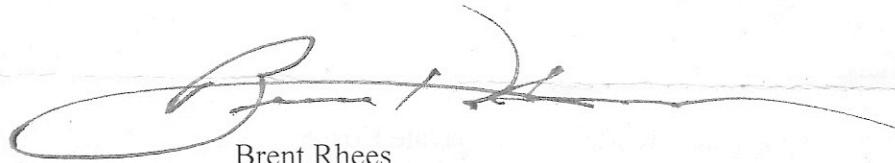
The potential effect of HFE down-ramp on bar shape was discussed among Grand Canyon Monitoring and Research Center (GCMRC) scientists and representatives from Grand Canyon Private Boaters Association and Grand Canyon River Guides at the Adaptive Management Program Annual Reporting Meeting last month in Phoenix, Arizona. GCMRC scientists

expressed interested in the issues you raised and research on this topic will be considered when developing the next proposed three-year work plan.

Reclamation will work with GCMRC scientists and the HFE Technical Team to ensure that your recommendation for a longer ramp down is considered when developing the next HFE recommendation and three-year work plan.

If you have any questions regarding this letter or a future HFE, please contact Katrina Grantz at 801-524-3635 or kgrantz@usbr.gov or Kathleen Callister at 801-524-3781 or kcallister@usbr.gov.

Sincerely



Brent Rhees
Regional Director

Enclosure

cc: Christine Lehnertz
Superintendent
Grand Canyon National Park
PO Box 129
Grand Canyon, AZ 86023

cc: Paul Grams
Supervisory Hydrologist
Grand Canyon Monitoring
Research Center
2255 North Gemini Drive
Flagstaff, AZ 86001

cc: Seth Shanahan
TWG Chair
Southern Nevada Water Authority
PO Box 99956
Las Vegas, NV 89193

cc: John Vrymoed
Geotechnical Engineer
Grand Canyon Private
Boaters Association
809 West Riordan Road
Suite 100, #431
Flagstaff, AZ 86001

cc: Scott Vanderkooi
Chief, Grand Canyon Monitoring
Research Center
2255 North Gemini Drive
Flagstaff, AZ 86001