

Glen Canyon Dam Adaptive Management Program Adaptive Management Work Group Meeting November 17, 2020

Tuesday, November 17, 2020

Start Time: 9:01 am Mountain Standard Time (MST)

Recorder: Carliane Johnson, SeaJay Environmental, LLC.

Welcome and Administrative: Dr. Timothy “Tim” Petty, Assistant Secretary for Water and Science, Department of the Interior (DOI) and Secretary’s Designee

- **Introductions and Determination of Quorum (13 members)** [Tim Petty, DOI and Adaptive Management Work Group (AMWG) Chair] A lot of topics were covered during the August AMWG meeting. Since then, there has been good participation on the Technical Work Group (TWG) and the other subgroups to allow us to meet again and consider this motion today. The following DOI leadership members were introduced: Aubrey Bettencourt, DOI Deputy Assistant Secretary; Jaci Gould, Bureau of Reclamation (Reclamation) Acting Regional Director, Upper Colorado Basin Regional Office; and Daniel Picard, Reclamation, Deputy Regional Director, Upper Colorado Basin Regional Office and Acting Designated Federal Officer.
- **Lee Traynham, Reclamation** A quorum was reached with 20 members.
- **Administrative Update** [Tim Petty, DOI and AMWG Chair] The administrative updates were distributed via email on October 28, 2020.

Technical Work Group (TWG) Chair Report: Seth Shanahan, TWG Chair

[PRESENTATION] [Seth Shanahan, Southern Nevada Water Authority (SNWA) and TWG Chair] This presentation timeline is intended to introduce the AMWG to the TWG’s process in order to fully understand the level of work that went into the technical evaluations and recommendations on Project O. A table was provided to show the Flow Ad Hoc Group’s (FLAHG) workflow with the TWG. The process was successful in achieving the desired outcomes and culminated in a set of recommendations to the AMWG that were adopted by consensus at the October 14-15, 2020 TWG meeting.

[PRESENTATION] [Peggy Roefer, Colorado River Commission of Nevada and FLAHG Chair] The FLAHG started meeting in September 2019 and had developed its charge by December 2019. In mid-September 2020, the FLAHG submitted a Spring Disturbance Flow hydrograph to the TWG for consideration. The presentation outlined those efforts. The proposed hydrograph is subject to further review and evaluation by the Planning and Implementation Team (“Technical Team”) and could be further revised.

[Vineetha Kartha, Arizona Department of Water Resources (ADWR)] This is a unique project because it is stakeholder-driven. Under the Long-Term Experimental and Management Plan (LTEMP), high flow experimental (HFE) releases are the principal types of flows that cause disturbance to the ecosystem. Research efforts on HFEs are primarily focused on with whether they can build sandbars with most of

this research occurring during fall HFEs. The only spring HFE that had substantial data was in 2008. While spring HFEs may benefit natural processes, they may also cause a relative increase in the abundance of rainbow trout so the LTEMP instituted a moratorium (that has now passed) on spring HFEs. There are two sediment accounting periods for spring and fall HFEs. Discharge data has shown that spring HFEs may occur less frequently. In 2018, the Grand Canyon Monitoring & Research Center (GCMRC) was tasked with assessing the impact of high flows on high value resources. The FLAHG was stood up in 2019, as was shown in Peggy's presentation. The TWG accepted the hydrograph recommendation from the FLAHG on October 14. There was consensus for the TWG to recommend to the AMWG that the Secretary of the Interior consider a spring disturbance flow hydrograph, as shown in the motion. Peggy was also recognized for her work on the FLAHG.

Motions and Votes

1. Spring Disturbance Flow Hydrograph

[Lee Traynham, Reclamation] This draft motion is almost word-for-word the one from the TWG [\[TWG MOTION\]](#), except for "associated presentations to the AMWG on November 17, 2020." Motion was read into the record.

[Tim Petty, DOI and AMWG Chair] Everyone is reminded that while this is clearly within the LTEMP protocol, the Secretary of the Interior will make the final decision as to whether or not to implement the proposed spring disturbance flow, but not until the February/March 2021 timeframe. It was recognized that the proposed motion is based on the specific science outlined by Seth, Peggy, and Vineetha.

Discussion

[Larry Stevens, Grand Canyon Wildlands Council (GCWC)] Appreciates the clear description of the process of the TWG and the FLAHG. The GCWC has long regarded this as a very important experiment that will help guide future dam management. While the motion passed with consensus, it is not consensus without concern because the experimental design is not perfect. In the past, flow experiments were followed by constant flow periods. However, given that much of the work will take place in the Lees Ferry reach, there may be less concern about this, and it is a cost savings. It was also a good learning experiment for understanding appropriately timed high flows. **[Leslie James, Colorado River Energy Distributors Association (CREDA)]** Thanks to Seth, Peggy, and others involved in these discussions. The resource assessment document from GCMRC could be a template for future experiments. Dr. Petty's comments about this being consistent with the LTEMP protocol for a spring disturbance is noted. The wholesale market prices will probably double in the third quarter and it is good that the LTEMP protocol requires a look at this before anything is decided by the Secretary. **[Tim Petty, DOI and AMWG Chair]** One thing that came up in the TWG was the number of low flow actions proposed for 2021. We always want to take those concerns into consideration as we work to meet the resource goals of the LTEMP. **[Peter Bungart, Hualapai Tribe]** Some of these spring disturbance flows have the potential to enhance biodiversity and more closely reflect a natural regime. This is significant to the Hualapai people and it is believed that the other tribes would reflect the same sentiments.

Moved by: Peter Bungart, Hualapai Tribe

Seconded: John Jordan, Fly Fishers International (FFI)/Trout Unlimited (TU)

No Voting Members Present: Southern Paiute Consortium, Navajo Nation, Utah

Motion approved by consensus.

[Tim Petty, DOI and AMWG Chair] This [\[MOTION\]](#) will go to the Secretary of the Interior so that we would be prepared if conditions met the requirements to have a spring disturbance flow event. Great job by everyone on this.

2. Spring Disturbance Flow Monitoring Proposal (“Project O”)

[PRESENTATION] **[Scott VanderKooi, GCMRC]** Background and revisions on Project O were presented. The idea was to take advantage of the apron repair and develop a potential spring disturbance with low flows not seen since the early 1990s followed by a higher pulse, and to see what effect that might have on downstream resources of the Colorado River Ecosystem. GCMRC had included part of this in the Triennial Budget and Work Plan (TWP), but it became clear that GCMRC’s approach to add elements into existing projects was not sufficient. GCMRC was asked to develop a full project, which became “Project O,” in the draft TWP prior to the August AMWG meeting. A lot of discussion ensued about Project O and funding issues. In August, the AMWG deferred Project O for further consideration, feedback, and revisions by the TWG.

[Mike Moran, GCMRC] After the August AMWG meeting, it was recommended that Project O be revised based on stakeholder comments. GCMRC reviewed and revised Project O. Two documents were developed and provided to the TWG – one was the responses to comments and the other was the revised Project O. Three meetings were held for the Budget Ad Hoc Group (BAHG) to review the budget aspects of Project O. Two recommendations were made to: 1) prioritize Project O elements, and 2) identify appropriate sources of funding. Stakeholder comments and recommendations resulted in major changes to Project O. GCMRC made two additional changes following the review of Project O during the October TWG meeting. The latest version was sent to Reclamation on October 29.

Discussion

[Larry Stevens, GCWC] It is not only the experiment but the process itself that has been a learning experience. It would be helpful to have these presentations archived to remind us of these discussions if this is revisited in the future. **[Scott VanderKooi, GCMRC]** GCMRC plans to provide these presentations to post on Reclamation’s website. **[Craig Ellsworth, Western Area Power Authority (WAPA) and BAHG Chair]** The Wiki FLAHG page will be updated to show how the process unfolded and how the motions were passed.

[Craig Ellsworth, WAPA and BAHG Chair] The BAHG’s charge from the TWG was to 1) look at a [\[PRIORITIZATION\]](#) of the project elements, which has been incorporated into the revised Project O, and to 2) discuss appropriate funding sources. Many of the bullets in the proposed motion came from the BAHG. There was a lot of work in revising the document and that effort from everyone was appreciated.

[Vineetha Kartha, ADWR] As part of a lengthy discussion of the TWP budget, the AMWG had directed the TWG to review a revised Project O and to forward recommendations to the AMWG before October 30. The AMWG was then to consider and act on the TWG recommendation no later than November 20, 2020. Both deadlines were met. The revised Project O is now before the group for a vote.

[Tim Petty, DOI and AMWG Chair] The prioritized list that was developed is going to be extremely helpful for AMWG members to understand what should be accomplished first. The group is reminded of all the other projects that are part of the 2021-2023 TWP approved before Project O that are also moving forward. The GCMRC team is working with Reclamation to identify resources available for

Project O because the budget was already considered and committed to Projects A through N. We need to be sure there is a discussion about the finances and the amount of resources that will be available.

[Lee Traynham, Reclamation] The draft motion is almost identical to the motion that was passed by consensus from the TWG. The two changes were the inclusion of a reference to November 13, which was the date when the new draft was distributed by GCMRC, and the removal of a bullet containing specific year references so that the project now refers to Year 1 and Year 2. The document with the three prioritization tiers that had been recommended by the BAHG was displayed on the screen to the group. **[Leslie James, CREDA]** The reason for requesting this was to address the challenges of prioritization. There is always more work, more science, and more studies than there is money for. This was a way for the BAHG to prioritize limited resources. It was important to do that. When this motion is posted, maybe Craig could link to the various documents within the motion. That way, we have a compendium of all the associated documents that went along with this process. It is great for this program to get to this point. **[Craig Ellsworth, WAPA and BAHG Chair]** Completely agree. All this information will be on the Wiki, perhaps on the BAHG page. That is one of the reasons why the Wiki is being used is to be able to see how these things were done. See also the table at the bottom of the prioritization document that lists the BAHG's rank order with input from the different stakeholders of the different project elements. **[Lee Traynham, Reclamation]** This was Attachment A-4 that was distributed as part of the meeting materials to members and was submitted to the TWG on October 8. A lot of work went into that table to capture the complexity of interests in these project elements.

[Mike Moran, GCMRC] Should bullet 4 include language similar to bullet 5 about Elements O.1 and O.2 regarding funding to include "or other Reclamation considerations"? **[Lee Traynham, Reclamation]** Believe that language in bullet 5 was specifically related to science advisor funds in Element O.11 to leave room for that consideration. It is not believed that would apply to O.1 and O.2 **[Scott VanderKooi, GCMRC]** It seems it would allow for flexibility and options because right now, it looks constrained to only come from those funding sources. We want to look for as many sources as possible to leverage resources. **[Vineetha Kartha, ADWR]** Recalls that the distinction was on the words 'should' and 'could' and would agree with Scott to add "or other Reclamation considerations." **[John Jordan, FFI/TU]** Funding falls to GCMRC and Reclamation and he supports GCMRC to have as much flexibility as possible. **[Tim Petty, DOI and AMWG Chair]** If Reclamation has those capabilities and resources, then that language provides the flexibility to use them. To emphasize Leslie's point, there are many things we would love to do, and if we have the resources, we should consider them.

[Chris Cantrell, Arizona Game and Fish Department (AZGFD)] Notes that AZGFD is not abstaining from the vote and requests that be changed in the record.

[Leslie James, CREDA] Recalls that there was a distinction that recognized priority differences between elements O.1, O.2, and O.11 and that the main discussions had occurred around 'should' versus 'could.' Agrees with Vineetha on that. **[Tim Petty, DOI and AMWG Chair]** That highlights the purpose of the prioritized list, and helps to emphasize the need to continue discussions and consider whether resources are available to support project elements as the project progresses.

[Jan Balsom, National Park Service-Grand Canyon] Navajo Nation should be in a different category on the motion than "abstained".

[Tim Petty, DOI and AMWG Chair] A request to move the [\[MOTION\]](#) was made.

Moved by: John Jordan, FFI/Trout Unlimited

Seconded: Steve Wolff, State of Wyoming

Absent: Southern Paiute Consortium, Navajo Nation and Utah – no voting members present.

Approved by consensus at 10:36 am MST on November 17, 2020

[Lee Traynham, Reclamation] Everyone's input and participation in this process has been appreciated. The process was very effective because of great leadership from the group leads and participation of the AMWG and TWG members.

Public Comment

None.

Wrap-Up: Tim Petty, Secretary's Designee

FY 2021 TWG and AMWG meeting dates:

- January 20-22 (Annual Reporting Meeting & TWG)
- February 10-11 (AMWG)
- May 19 (AMWG)
- August 18-19 (AMWG)

Closing comments:

[Tim Petty, DOI and AMWG Chair] A lot was done this year. Thanks to Lee's and Scott's great teams. There was much accomplished this year despite COVID.

[Lee Traynham, Reclamation] The draft TWP is on route to the Secretary. The two recommendations from today's meeting will be expedited to leadership in Washington D.C. The holidays are a tough time to get reviews completed but confident there will be a fast turnaround. Members will be updated on that progress. We will then hit the ground running in January with the Annual Reporting meeting. Happy and safe holidays to everyone.

Meeting adjourned at 10:43 am MST.

Meeting Attendees

AMWG Members, Alternates, and Leadership

Jan Balsom, NPS-GRCA

Cliff Barrett, UMPA (Alternate)

Richard Begay, Navajo Nation

David Brown, GCRG

Peter Bungart, Hualapai Tribe

Kathleen Callister, Reclamation (Alternate)

Chris Cantrell, AZGFD

Charlie Ferrantelli, State of Wyoming (Alternate)

Kevin Garlick, UMPA

Michelle Garrison, State of Colorado (Alternate)

Vineetha Kartha, ADWR (Alternate)

Arden Kucate, Pueblo of Zuni

Charles "Chip" Lewis, Bureau of Indian Affairs

Jakob Maase, Hopi Tribe

John McClow, State of Colorado

Jessica Neuwerth, CRBC

Timothy Petty, DOI and Secretary's Designee

Daniel Picard, AMWG DFO

Matt Rice, American Rivers

Peggy Roefer, CRCN (Alternate)

John Hamill, FFI/Trout Unlimited (Alternate)
Paul Harms, State of New Mexico (Alternate)
Chris Harris, CRBC (Alternate)
Jeff Humphrey, USFWS
Leslie James, CREDA
John Jordan, FFI/Trout Unlimited

Brian Sadler, WAPA (Alternate)
Billy Schott, NPS-GLCA (Alternate)
Arienne Singer, State of New Mexico
Larry Stevens, Grand Canyon Wildlands Council
Steve Wolff, State of Wyoming

USGS/GCMRC Staff

Lucas Bair
Helen Fairley
Paul Grams
Ted Kennedy
David Lytle
Michael Moran

Jeff Muehlbauer
Emily Palmquist
Joel Sankey
Scott VanderKooi
David Ward

Reclamation Staff

Tara Ashby
Mike Bernardo
Clarence Fullard
Dave Isleman
Heather Patno
Kerri Pedersen

Alex Pivarnik
Wayne Pullan
Shana Tighi
Lee Traynham
Nicholas Williams

Interested Persons

Terra Alpaugh, Kerns West
Rob Billerbeck, NPS
Daniel Bullets, Southern Paiute Consortium
Kevin Bullets, Southern Paiute Consortium
Kelly Burke, Grand Canyon Wildlands Council
Carrie Cannon, Hualapai Tribe
Kevin Dahl, National Parks Conservation Association
Chrystal Dean, WAPA
Kurt Dongoske, Pueblo of Zuni
Sinjin Eberle, American Rivers
Craig Ellsworth, WAPA
Amy Haas, Upper Colorado River Commission
Brian Healy, NPS
Carlaine Johnson, SeaJay Environmental
Theresa Johnson, ADWR

Sara Larsen, Upper Colorado River Commission
Ryan Mann, AZGFD
Scott McGettigan, State of Utah
Craig McGinnis, ADWR
Amy Ostdiek, State of Colorado
Bill Persons, FFI/Trout Unlimited
Kerry Rae, DOI
Shana Rapoport, Colorado River Board of California
David Rogowski, AZGFD
Seth Shanahan, TWG Chair and SNWA
Erik Skeie, State of Colorado
Rod Smith, DOI
Jim Stroger, FFI/Trout Unlimited
Melissa Trammell, NPS

Abbreviations

ADWR – Arizona Department of Water Resources

AMWG – Adaptive Management Work Group

AZDGF – Arizona Game and Fish Department

BAHG – Budget Ad Hoc Group

CRBC – Colorado River Board of California

CRCN – Colorado River Commission of Nevada

CREDA – Colorado River Energy Distributors Association

DFO – Designated Federal Officer

DOI – Department of the Interior

FFI – Fly Fishers International

FLAHG – Flow Ad Hoc Group

GCDAMP - Glen Canyon Dam Adaptive Management Program

GCMRC – Grand Canyon Monitoring & Research Center

GCRG – Grand Canyon River Guides

GLCA – Glen Canyon National Recreation Area

GRCA – Grand Canyon National Park

HFE – High Flow Experiment

LTEMP – Long-Term Experimental and Management Plan

MST – Mountain Standard Time

NPS – National Park Service

Reclamation – Bureau of Reclamation

Secretary – Secretary of the Interior

SNWA – Southern Nevada Water Authority

TMF – Trout Management Flows

TU - Trout Unlimited

TWG – GCDAMP Technical Work Group

TWP – Triennial Budget and Work Plan

UMPA - Utah Municipal Power Agency

USGS – United States Geological Survey

WAPA – Western Area Power Administration