

**Colorado River Storage Project
Flaming Gorge (Interim) Working Group
Meeting Minutes
July 14, 2021**

Participation

This meeting was held Wednesday, July 14, 2021 from 3:00 p.m. to 4:30 p.m. Due to the ongoing COVID-19 (Coronavirus) pandemic, the meeting was held via WebEx virtual meeting. Attendees are listed below.

Purpose of Meeting

The purpose of these working group meetings is to inform the public and other interested parties of Reclamation's current and future operational plans and to gather information from the public regarding specific resources associated with Flaming Gorge Reservoir and the river corridor below it. In addition, the meetings are used to coordinate activities and exchange information among agencies, water users, and other interested parties concerning the Green River.

This July working group meeting was held in addition to the typical March, April, and August meetings. The following meeting notification was sent via email on July 13, 2021:

The Colorado River Basin is experiencing one of the driest years on record as well as record low elevations in Lake Powell. Forecasted inflows into Flaming Gorge and Lake Powell have dropped in nearly each successive monthly forecast this year. Also, our models are showing alarmingly low forecasted levels in Lake Powell. Reclamation has been working with the State of Utah as well as the other 7 basin states, the USFWS Utah Field Office, the USFWS Recovery Program, Western Area Power, and other water management partners to develop a plan to address the basin-wide drought and storage concerns. As this season has progressed, it has become clearer as each forecast was released, we will need to update our operation plan for Flaming Gorge Dam to address these concerns this year. We are planning to present the operation changes on Wednesday, July 14th at 3:00 pm MT.

General

Dale Hamilton (U. S. Bureau of Reclamation) called the meeting to order at 3:00 p.m., apologized for the short notice for the meeting, discussed virtual meeting logistics, and introduced the meeting agenda. To avoid audio feedback, attendees were asked to keep their microphones muted unless speaking and introduce themselves via the chat function in the virtual meeting (attendees who identified themselves or were identified by their meeting attendee name are included in the list of attendees below).

Drought Operations – Dale Hamilton, Gene Shawcroft, Heather Patno, Wayne Pullan

Dale Hamilton, Division Manager, U. S. Bureau of Reclamation
Gene Shawcroft, Utah Commissioner to the Upper Colorado River Commission (UCRC)
Heather Patno, Hydraulic Engineer, U. S. Bureau of Reclamation
Wayne Pullan, Upper Colorado Basin Regional Director, U. S. Bureau of Reclamation

Dale led a group presentation.

Gene Shawcroft noted that the Utah legislature passed the Utah Colorado River Authority Act which creates the Colorado River Authority of Utah. There will be six board members on the Authority with the first meeting scheduled for July 30th. Amy Haas was selected to be the executive director and will begin on July 26th.

Heather Patno presented information about conditions at Lake Powell and Lake Mead. Combined storage in Lake Powell and Lake Mead was at 95% in 1999, nearly full. Due to low inflows to Lake Powell, combined Powell-Mead storage dropped significantly from 2000 to 2004; drought became a concern and led to the creation of the 2007 Interim Guidelines document to coordinate operations of Lake Powell and Lake Mead. After 2007, the inflows to Powell bounced around, but combined Powell-Mead storage remained fairly constant around 50% of capacity. However, the low inflows in 2020 (54% of average) and exceptionally low inflows in 2021 (forecasted to be 30% of average) have led to a projected combined Powell-Mead storage of 32% in 2021. Lake Powell storage was 34% of capacity in June 2021 which is near the lowest (33% of capacity in April 2005) it has been since filling in the 1960s. In June 2021, Lake Mead decreased to 35% of capacity, which is the lowest it has been since the beginning of filling in the 1930s.

Dale presented information about the decrease in the inflow forecasts that we've seen since April. In January, the April thru July Flaming Gorge inflow forecast was for 585,000 acre-feet, but has fallen to 350,000 acre-feet, with most of the decrease happening since April. The April thru July Lake Powell inflow forecast was 3,800,000 acre-feet but has fallen to 1,746,000 acre-feet (a 54% decrease), again, with most of the decrease happening since April. Five-year projections released last week predicted a 79% chance that Lake Powell would fall below the Drought Response Operations Agreement (DROA) target water surface elevation of 3525 feet sometime next year.

Heather presented information about the recent 24-month study, the operating tiers for coordinated operations between Powell and Mead from the 2007 Interim Guidelines, and current projections. The Interim Guidelines established different operating scenarios based on reservoir elevations at Lake Powell and Lake Mead. At Lake Powell, the operational tiers are: Equalization Tier (ET; from elevation 3700 feet down to 3636-3666 feet, depending on the year), Upper Elevation Balancing Tier (from the bottom of the Equalization Tier down to 3575 feet), Mid-Elevation Release Tier (from elevation 3575 down to 3525 feet), and Lower Elevation Balancing Tier (below elevation 3525 feet). The tier for the year is determined in August, based on the August 24-month study. In August 2020, the conditions at Lake Powell set operations to the Upper Elevation Balancing Tier. With the precipitous drop in forecasts and inflows, we are looking at current elevations being in the Mid-Elevation Release Tier, and forecasted elevations to drop below the record low from 2005 by the end of this month or beginning of next month and to drop below elevation 3525 around next February and remaining below 3525 for roughly three months prior to spring runoff. The inflow forecast has continued to drop, and as a result, the reservoir forecast has continued to drop at an unexpected rate.

Wayne provided additional context for the current situation. The drought in the early 2000s triggered the creation of the 2007 Interim Guidelines, which has served us quite well, but it became clear that the guidelines may not be adequate which lead the former Commissioner of Reclamation to approach the states about drought contingency planning and in 2019, the upper basin states, the lower basin states, and Reclamation entered into agreements associated with drought contingency planning. For the lower basin, the drought contingency planning included demand management to create some surplus which has been a benefit to the lower basin and upper basin. For the upper basin, the drought contingency planning included three parts: weather modification, demand management, and drought operations. There has been a pilot program to investigate demand management and incentivizing water saving. For drought

operations planning, the upper basin states and Reclamation entered into an agreement called the Drought Response Operations Agreement (DROA), which was an agreement to agree that the upper basin states and Reclamation would work together to put together a Drought Response Operations Plan. The plan had the following objectives: to protect infrastructure (to keep Lake Powell above elevation 3490 feet, the minimum elevation at which power can be produced), to protect the economic reliance on that infrastructure (power supplies and power revenues), and to protect the ability of the upper basin to meet its Colorado River Compact agreements (deliver 75 million acre-feet to the lower basin over a 10-year period). The Drought Response Operations Agreement aims to meet the objectives by establishing a target elevation at Powell that we will aim to protect: 3525 feet, which is 35 vertical feet above the minimum power pool elevation 3490 feet, and provides a storage buffer and time buffer allowing us time to react. The principal tool of the DROA is to plan and make supplemental deliveries from the initial units of the Colorado River Storage Project: Flaming Gorge, Blue Mesa, and Navajo, within the flexibility of the Record of Decisions that govern the operation of each reservoir. There is some flexibility to the timing of releases from Lake Powell to the lower basin, but that water does need to be released eventually. Another element of the DROA is that there needs to be a plan for recovery of those supplemental deliveries in the upper reservoirs and there needs to be close coordination between Reclamation and the upper basin states, as well as the lower basin states. The Drought Response Operations Agreement anticipated that the upper basin states and lower basin states would put together the Drought Response Operations Plan, but at the time of the agreement in 2019, we all assumed that things would progress in an orderly fashion. We assumed that the 24-month study would provide significant notice that Lake Powell may fall below elevation 3525 feet, and we would have roughly 24 months to put together the Drought Response Operations Plan. That is not the way things have unfolded. The decline to 3525 happened in a way that did not allow adequate time to put the plan together. Today we are discussing a release from Flaming Gorge and the other reservoirs based on provisions in the DROA where Reclamation acts in the absence of a plan and coordinates with the upper basin states and the lower basin states. In the five-year projections released last week, there is an unacceptable chance of Lake Powell going below elevation 3490 feet in 2022, in 2023, and in the years beyond. The preliminary numbers from the July 24-month study indicated that the forecast would decline again, and it became clear we needed to make some effort to prop up Lake Powell. As Heather mentioned, the June 24-month study indicates that Lake Powell may potentially drop to elevation 3515 feet (ten vertical feet below elevation 3525 feet) by next April which creates a significant hole in Lake Powell which could worsen if conditions stay dry. Because of that, we considered what we could do at the three upstream reservoirs. We felt that it is important to move quickly to take advantage of the summer months, in case additional releases are needed in the fall and winter. The plan is to release 13 thousand acre-feet (kaf) in July, 42 kaf in August, 43 kaf in September, and 27 kaf in October from Flaming Gorge, for a total supplemental release of 125 kaf. A total supplemental release of 36 kaf is planned from Blue Mesa (taking place in August, September, and October). A total supplemental release of 20 kaf is planned from Navajo, with 10 kaf in November and 10 kaf in December (releases are later to ensure the water gets to Lake Powell). The 125 kaf from Flaming Gorge, the 36 kaf from Blue Mesa, and the 20 kaf from Navajo amount to a total supplemental release of 181 kaf, which is anticipated to raise the elevation of Lake Powell approximately 3 feet. The June 24-month study showed Lake Powell possibly dropping 10 feet below elevation 3525, these releases will help to mitigate some of that forecasted drop, but not all of it. We will continue to monitor conditions and forecasts to determine if we need to make additional deliveries in the fall or winter.

Dale presented information about the planned releases at Flaming Gorge. Flows from the dam are planned to increase to 1250-1450 cfs in July and be 1500-1700 cfs in August and September, and 1250-

1450 cfs in October. The plan is to increase releases by 50 cfs per day over the next nine days or so. The 24-month study indicates that planned Flaming Gorge releases, including the supplemental releases for Lake Powell, may result in the reservoir decreasing from the current elevation (~6023.5 feet) by about six feet (to ~6017.5 feet) by this winter before recovering about 2 feet by May 1, 2022. These forecasted elevations may vary depending on actual inflows. In addition to the benefits these releases will have on Lake Powell water levels, it is anticipated that they could also benefit the Colorado Pikeminnow (the supplemental flows are similar to releases made for Pikeminnow), the rafting community (comments earlier this year indicated that 860 cfs made rafting difficult), and hydropower generation (increased power generation at Flaming Gorge and a higher power pool at Lake Powell).

General Discussion, Comments, Questions

Dale opened the meeting for any discussion, comments, or questions.

In response to a question concerning planning for the future, Wayne noted that we've been planning for some time. We have the Interim Guidelines, Drought Contingency Plans, Drought Response Operations Agreement, the five-year projections, the 24-month study, and hopefully we will have a Drought Response Operations Plan put in place over the next few months.

In response to a question about the currently planned supplemental releases, Wayne clarified that the preliminary July 24-month study numbers show yet another decrease in forecasted inflows which, without the supplemental releases, would result in a forecasted Lake Powell elevation of 3513 next April. The supplemental releases would aim to keep Powell up near elevation 3516 next April.

In response to a question about whether additional water could be released for Pikeminnow under the recovery program, Wayne mentioned that the benefit largely falls off after the end of the summer.

A comment was shared that these operations will reduce the costs that WAPA is having to incur to get close to their contractual obligations.

In response to a question about differences in supplemental releases from the three upstream reservoirs, Wayne noted that Flaming Gorge is the largest reservoir and each reservoir has different Record of Decision restrictions and contractual obligations. The intent is to stay as close as possible to proportional releases, but there will be some differences.

Wayne also noted that making these releases in the summer would be beneficial to power generation.

In response to a question about how Reclamation will shepherd the water to ensure it will make it down to Lake Powell, Wayne stated that we don't have that assurance. On the Green, it is likely the water will get there. On the San Juan, part of the reason for waiting to make the releases was to avoid competing interests that may take water. It is not all going to get there, and at this point we haven't had the time to estimate losses.

In response to a question about recovering the supplemental release water to Flaming Gorge, Wayne noted that recovery is an element that has yet to be determined by Reclamation and the states. In our discussions with the states, we need to work out these recovery provisions as soon as possible.

In response to a question about how much of the 180,000 acre-feet of supplemental releases will arrive at Lake Powell, Wayne noted that we're still looking into it. And in response to a question about whether it would be more beneficial to make the releases in the winter when it's not so hot, Wayne noted that it is likely true, but releases are being made now because it may be necessary to make releases later as well. Any releases that might be necessary in the fall or winter would benefit from being later in the year.

In response to a question about whether the endangered fish will be protected, Wayne mentioned that one of the good provisions of the DROA is that operations stay within the provisions of the Record of Decision. And, Reclamation has consulted with the Fish and Wildlife Service. Protecting the fish is one of our objectives.

Appreciation was expressed for being apprised of the situation and a comment was shared that any advanced participation in alternatives discussions is appreciated. It was also noted that Flaming Gorge releases kept below power plant capacity have much less erosion damage to the riverbanks in Reach 1. Interest was also expressed in keeping informed about what releases will be in the future and filling the hole in Flaming Gorge. Wayne expressed that the lower level in Flaming Gorge will not be a new target elevation. If we fill Flaming Gorge to our normal target elevation it will be considered recovered, if not, there will be a debt that is going to be owed that will be filled over time based on the provisions that the states negotiate as part of the Drought Response Operations Plan.

In response to a question about what is being discussed regarding future releases and whether the Working Group can be involved in decision making, Wayne stated that we're in the preliminary stages of planning. We don't know what the future will bring. It is good to store water as high in the system as you can. It is also important that we don't draw too heavily on these upper reservoirs, we must act sustainably.

In response to a question about what might be the ultimate ask for releases from Flaming Gorge, Wayne responded that DROA has some provisions requiring that we consider when propping up Powell becomes futile, one definition of futility would be when it becomes impossible to sustain Lake Powell. We'll be talking to the states about what that futility provision means.

In response to a question about changes in Fontenelle releases, Dale stated that there isn't any plan to alter Fontenelle releases. Wayne added that Fontenelle is not one of the Colorado River Storage Project initial units and therefore is not part of the Drought Response Operations Agreement.

In response to a question about whether the releases presented will be in the July 24-month study, Wayne replied that, yes, these releases will be incorporated into the July study. The study is anticipated to come out tomorrow (7/16).

Wayne added that he's enjoyed coming to the Working Group meetings and the history of coordinating. This is not the way we like things to happen, but these releases have just come together in the past ten days or so, and in keeping with the relationship we have and in the desire to be as transparent as we can, we are bringing this information to you early. We are dedicated to working closely with the Working Group.

In response to a question about what demand management is and what we are doing to manage demand, Wayne stated that the concept of demand management is the development of state programs to compensate individuals for forgoing the use of their water and making it available for use at Lake Powell. Reclamation supported a pilot program with the Upper Colorado River Commission to see how this could work in a practical way. The states are looking at the feasibility of setting up such programs in each state, and the Upper Colorado River Commission has brought on consultants to help advise the states in putting those programs together. Reclamation has supported those consultants. It allows water to go to productive use. It has helped maintain the elevation of Lake Mead which has helped the lower basin and the upper basin. What we've talked about today is just moving existing water around, demand management has the potential to create new water. All that said, it raises some difficult programmatic, legal, and water rights questions.

In response to a question about how much water has been delivered to the lower basin this year to date, it was stated that Glen Canyon has released 6,335,595 acre-feet this year, since Oct 1, 2020.

In response to a question about how many users are provided power from Hoover, it was stated that Hoover Dam power serves 1.3 million people in Arizona, California, and Nevada. It was estimated that 160 entities receive Colorado River Storage Project power (in all Colorado Basin states except California).

In response to whether power users should also be included in demand management, it was mentioned that entities do have demand management and conservation measures in place.

In response to a question about what the worst case scenario might look like at Lake Powell if future years look like this year, Wayne stated that we talk in probabilities and the chance of going below 3490 is 5% or less in 2022, which is slight, and water is being sent down to reduce that probability. The chance goes up quite a bit for 2023. If 2022 is bad, we're going to be stretched thin to maintain elevations at Powell. These are all things that we are studying and will include in our 24-month studies and 5-year projections. Discussions of those projections will be a part of our Flaming Gorge Working Group Meetings.

In response to a question about how low of an elevation Reclamation is willing to go to in Flaming Gorge, Wayne mentioned that at this point we don't know. Some reassurance can be found in knowing that we are staying within the flexibility of the Record of Decision which limits the ability to take large amounts of water from the reservoir. This is just the first delivery of what could be several, and we will be having discussions. It is unlikely that any additional release decisions will have as short of a fuse as this one has had.

Chris Cutler noted that the planned releases presented in the slides for Blue Mesa had been changed. The overall volume of 36 thousand acre-feet (kaf) is correct, but August will be 14 kaf, September will be 18 kaf, and October will be 4 kaf.

Next Meeting

- Thursday, August 12, 2021 at 10:00 am via WebEx (tentative)

Planned topics include hydrology, Recovery Program updates, Flaming Gorge operations, hydropower, GREAT modeling

Attendees

Woody Bair	Flaming Gorge Resort	T. Wright Dickinson	Vermillion Ranch
Cody Perry	Friends of the Yampa	Kevin Bestgen	Colorado State University
Tim Gaylord	Holiday River Expeditions	Jack Lytle	Daggett Co. Commissioner
Kat Mueller	Western River Flyfisher	Ryan Rust	City of Green River
Melanie Morrison	River Runners' Transport	Mark Westenskow	City of Green River
Tony Valdez	Buckboard Marina at FG	Ryan Kelly	FG Chamber of Commerce
Jen Valdez	Buckboard Marina at FG	Michelle Garrison	Colorado Water Cons Board
John Rauch	Cedar Springs Marina	Jojo La	Colorado Water Cons Board
Jerry Taylor	Lucerne Valley Marina	Gene Shawcroft	Central Utah Water Cons Dist /Utah Col. R. Auth.
Brant Williams	Lucerne Valley Marina	John Hunting	Uintah Water Cons. District
Jessica Williams	Lucerne Valley Marina	Gabby	Uintah Co. Comm. Dev.
Matt Lucas	WRF Guides	Jeff Comstock	Moffat Co. Colorado
Bruce Lavoie	OARS		

Ben Bracken	Alt. UC Riv. Commissioner	Russ Findlay	Dept. of the Interior
Randal Doc Wendling	Sweetwater Co. Commiss.	Ron Griffiths	U. S. Geological Survey, Gr. Cnyn. Montr. & Rsrch. Ctr.
Bryan Seppie	Joint Powers Water Board	Ryan Rowland	U. S. Geological Survey
Terry Leigh	Joint Powers Water Board	Chris Cutler	U. S. Bureau of Reclamation
Michael Tardoni	Joint Powers Water Board	Chris Watt	U. S. Bureau of Reclamation
Todd Adams	Utah Div. Water Resources	Conor Felletter	U. S. Bureau of Reclamation
Craig Walker	Utah Div. Wildlife Resources	Dale Hamilton	U. S. Bureau of Reclamation
Drew Cushing	Utah Div. Wildlife Resources	Dave Speas	U. S. Bureau of Reclamation
Trina Hendrick	Utah Div. Wildlife Resources	Doug Livermore	U. S. Bureau of Reclamation
Paul Thompson	Utah Div. Wildlife Resources	Ed Warner	U. S. Bureau of Reclamation
Paul Badame	Utah Div. Wildlife Resources	Emmy Ellison	U. S. Bureau of Reclamation
Matt Breen	Utah Div. Wildlife Resources	Ernie Rheume	U. S. Bureau of Reclamation
Mike Partlow	Utah Div. Wildlife Resources	Gary Henrie	U. S. Bureau of Reclamation
Miles Hanberg	Utah Div. Wildlife Resources	Heather Patno	U. S. Bureau of Reclamation
Ryan Mosley	Utah Div. Wildlife Resources	Jared Nielson	U. S. Bureau of Reclamation
	Dutch John	Jeff Garrard	U. S. Bureau of Reclamation
Eric Hansen	Wyo. Game and Fish Dept.	Jenny Handy	U. S. Bureau of Reclamation
Jessica Dugan	Wyo. Game and Fish Dept.	John Morton	U. S. Bureau of Reclamation
Robert Keith	Wyo. Game and Fish Dept.	Kasey Frandsen	U. S. Bureau of Reclamation
Charlie Ferrantelli	Wyo. State Engineer's Office	Kent Kofford	U. S. Bureau of Reclamation
Leslie James	Col. Riv. Energy Dist. Assoc.	Mark Delorey	U. S. Bureau of Reclamation
Tildon Jones	U. S. Fish & Wildlife Service	Nathaniel Todea	U. S. Bureau of Reclamation
Kevin McAbee	U. S. Fish & Wildlife Service	Paul Christensen	U. S. Bureau of Reclamation
Tom Chart	U. S. Fish & Wildlife Service	Peter Crookston	U. S. Bureau of Reclamation
Julie Stahli	U. S. Fish & Wildlife Service	Rick Baxter	U. S. Bureau of Reclamation
Don Anderson	U. S. Fish & Wildlife Service	Robert Henrie	U. S. Bureau of Reclamation
Craig Ellsworth	Western Area Power Admin.	Ryan Christianson	U. S. Bureau of Reclamation
Derek Fryer	Western Area Power Admin.	Ryan Luke	U. S. Bureau of Reclamation
Brenda Alcorn	Nat. Weather Service, Col. Basin Riv. Forecast Center	Scott Elliott	U. S. Bureau of Reclamation
Dusty Perkins	Nat. Park Service	Shaney Slaugh	U. S. Bureau of Reclamation
Melissa Trammell	Nat. Park Service	Wayne Pullan	U. S. Bureau of Reclamation
Gene Seagle	Nat. Park Service		