

# **Colorado River Storage Project Flaming Gorge Working Group Meeting Minutes March 17, 2022**

## **Participation**

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This meeting was held Thursday, March 17, 2022, from 10:00 am to 12:00 noon. Due to the ongoing COVID-19 (Coronavirus) pandemic and Reclamation in-person meeting size limitations, the meeting was held via WebEx virtual meeting only. Attendees are listed below.

## **Purpose of Meeting**

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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.

## **General**

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Dale Hamilton United States Bureau of Reclamation (USBR) called the meeting to order at 10:00 a.m., noted that last year releases were made under the Drought Response Operations Agreement for the first time, discussed the purpose of the Flaming Gorge Working Group meetings, virtual meeting logistics, and introduced the meeting agenda and presenters. To avoid audio feedback, attendees were asked to introduce themselves via the chat function in the virtual meeting (attendees who identified themselves or were identified by their meeting attendee name were included in the list of attendees below).

Dale noted that the Flaming Gorge Working Group has been meeting since the 1990s and was formalized in the 2005 final Environmental Impact Statement (EIS) and 2006 Record of Decision (ROD) as the public consultation portion of the National Environmental Protection Act (NEPA) process to review and gather input on ongoing study plans and adaptive management as we learn more about the system and the endangered fish. Typical Working Group meetings take place in April and August to present proposed (April meeting) and actual (August meeting) operations. These newer March meetings are intended to provide operational plans to the group earlier and provide more time for input.

## **Hydrology & Forecasted Flaming Gorge Operations**

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Nathaniel Todea, Hydraulic Engineer, U. S. Bureau of Reclamation

Nathaniel presented information on Flaming Gorge and the 2022 forecasted hydrology and operations plan.

The 1956 Colorado River Storage Project authorized construction of Flaming Gorge Dam and other projects for: allowing Upper Basin States to utilize their 1922 Colorado River Compact apportionments, regulating Colorado River (and main tributaries) flow, storing water for beneficial consumptive use, reclamation of arid and semiarid lands, flood control, and hydroelectric power generation.

For operations, the Green River below Flaming Gorge is divided into three reaches: Reach 1 from Flaming Gorge Dam to the Yampa River confluence, Reach 2 from the Yampa River confluence to the

White River confluence, and Reach 3 from the White River confluence to the confluence with the Colorado River. Flaming Gorge Releases are correlated to reach 1, and if reach 2 operational targets are met, reach 3 targets are assumed to be met.

Flaming Gorge operations follow a 4-step process. Step 1 is getting an official flow request from the Fish and Wildlife Service Upper Colorado Recovery Implementation Program (RIP) and an initial draft Flaming Gorge Operation Plan (FG Ops Plan) developed and sent to the Flaming Gorge Technical Working Group. Step 2 is to develop and finalize a Flaming Gorge Technical Working Group proposal. Step 3 (the step we're currently on this year) is to share the proposal with and get comments from the Flaming Gorge Working Group. Step 4 is to finalize the Flaming Gorge Operation Plan.

Snowpack above Flaming Gorge is at 82% of median snow water equivalent and Flaming Gorge is at 78% of capacity. The March 1<sup>st</sup> runoff forecast for Flaming Gorge was at 540,000 acre-feet which puts Flaming Gorge in the Moderately Dry hydrologic classification. Snowpack in the Yampa and White River basins is at 89% of median which is a little better than the Upper Green. The March 1<sup>st</sup> forecast for the Yampa River (Maybell plus Lily) is 965,000 acre-feet, which is also Moderately Dry. The Colorado River Basin Forecast Center (CBRFC) also forecasts potential river flows in the Yampa at Deerlodge based on current conditions; the current forecasts indicate that statistically, the Yampa is likely to peak May 18-25 8,500-10,000+ cfsd peak flow.

The 2022 Recovery Program request provided 3 priorities for each of three sets of hydrologic classifications: average (below median) or drier, average (above median), and moderately wet or wet. Our current hydrology indicates we'll most likely have moderately dry conditions this year which would align with the average (below median) or drier request for (priority 1) smallmouth bass flow spike, (priority 2) experimental base flows, and (priority 3) spring releases consistent with the Larval Trigger Study Plan (LTSP). The Larval Trigger Study Plan spring peak flows for the moderately dry scenario would have a peak flow at Jensen above 8,300 cfs. The Colorado Pikeminnow base flows for the Moderately Dry scenario would target 1,800-2,000 cfs.

The Flaming Gorge Operation Plan for May 2022 through April 2023 is in draft form and will be finalized in early May after considering and incorporating comments. The most likely, Moderately Dry, scenario would have a spring release up to 4600 cfs; a small mouth bass flow (with a 1-day ramp from ~850 cfs up to 4600 cfs, a 72-hour hold at 4600 cfs, and a 2000 cfs per day ramp down to ~850 cfs); and a Colorado Pikeminnow base flow of just under 2000 cfs. Slides showing releases for other hydrologic classifications were also presented.

In response to a question about Pikeminnow flows being new this year (not being implemented last year) it was noted that the Colorado Pikeminnow flow request was not implemented last year due to the dry hydrologic classification, but the Drought Response Operations Agreement releases from Flaming Gorge ended up being similar to the requested flows.

Dale briefly presented reservoir operations slides showing the range of potential Drought Response Operations Agreement releases this year, with Moderately Dry condition flows ranging from a "Minimum Release" of 850 cfs throughout most of the year with a spring peak at powerplant capacity up to a "Drought Response Operation Agreement (DROA) Upper Range" releases that would include a ramp up to ~2000 cfs before the LTSP peak, a prolonged, 31-day peak at full bypass release of ~8600 cfs, and elevated baseflows through next April of up to ~2000 cfs. The "DROA Upper Range" releases represent an upper limit of the flexibilities afforded in the Record of Decision and are not likely to occur. The "DROA A" release schedule is currently considered to be the most likely release schedule if DROA releases are to be made again this year; it includes a ramp up before the LTSP spring release, an LTSP

spring release at full bypass capacity of ~8600 cfs for 7 to 8 days, then decreasing releases to powerplant capacity (~4600 cfs), and decreasing to baseflows for at least two weeks before implementing the smallmouth bass spike flow, with elevated baseflows through next April of up to ~2000 cfs. In response to a question about the difference between the blue “Proposed Plan” and the orange “DROA A” lines on the plot, it was stated that the blue is essentially a minimum DROA release, and the orange is a most likely DROA release.

There was a significant question/comment exchange. In response to a question, it was stated that 850 cfs has historically been considered the minimum release due to rough zones in turbine operations occurring at lower flows. In response to a question about the difference between the blue “Proposed Plan” and red “Proposed Plan no DROA” lines, it was stated that the total release volumes for the scenarios are nearly the same—the timing of the release is the main difference with the blue “Proposed Plan” releasing a significant volume early to get water down to Lake Powell by December. In response to a question, it was stated that the presentation slides from this meeting would be shared (they were emailed to the group on March 17<sup>th</sup> following the meeting). There was some discussion about the DROA Upper Range and flexibilities afforded in the ROD for operations to that level; follow up conversations between WAPA and USBR may be needed. In response to a question about total volumetric release for each presented release scenario, Nathaniel provided numbers for the Moderately Dry classification scenarios, May 2022-May 2023: Proposed Plan no DROA: 849 thousand acre-feet (kaf); Proposed Plan: 857kaf; DROA A: 1383kaf. In response to a question as to why the upper range of releases drops off around the timing of the smallmouth bass flows instead of being more consistent through the year, it was stated that those are the maximum releases provided for in the Record of Decision and Environmental Impact Statement. It was commented that baseflows below 850 cfs cause significant issues for the rafting community; below 850 cfs is not a manageable flow to navigate Lodore Canyon, in particular. In response to a question on reservoir elevations, it was stated that the most significant impact to elevations will come in the elevated baseflow period and later in the year. In response to a question about the volume of the “DROA Upper Range”, it was stated that it would provide a little more than 600kaf in additional water to Lake Powell by the end of December and 900kaf additional water by April 2023; under the other scenarios, that additional volume is closer to 250-300kaf by December and 600kaf by April 2023. In response to a question of whether the lowest release on the graph is 850 cfs, it was replied that, yes, 850 cfs is the lowest. A statement was made that Wyoming hasn’t agreed to any kind of release and is committed to not agreeing to any release until coordinating on impacts to the basin as a whole; from Wyoming’s perspective these options being presented are potentials and not agreed-to releases. A comment was made that with the Wild and Scenic River Designations on the Green River downstream, the planning process is beginning, and minimum flow rates are a big part of the planning; they are mandated by congress to maintain and or improve the flow conditions from the time of designation, which was 2019; interest was expressed in ensuring flows don’t go below 850 cfs for more than one day at a time and possibly discussing the potential of raising the minimum flow rate in the future. In response to a statement that it was hard to tell what “DROA Upper Range” base flows would be, it was stated they’d be around 1800-2100 cfs. In response to a question as to when WAPA would receive the hydrographs for with and without Green River Evaluation and Assessment Team (GREAT) experiments implemented (they had requested to receive the hydrographs before the meeting to perform a financial impact analysis), it was stated the plan is to have the hydrographs out by the end of the week. Colorado River Energy Distributors Association (CREDA) commented that the RIP as a group has not approved the GREAT report and is hesitant to do a lot under the GREAT report until the RIP has approved it; it was also noted that CREDA and the CRSP customers are in a much different position than last year: in December 2021 a new rate case took effect which moves the risk of replacement power directly to the

customers; WAPA needs the hydrographs to determine the financial impacts to the Basin Fund and what quantities of power will be available to customers, and with the new change, there are direct impacts to individual customers including the 54 tribes that are CRSP customers that will result from any release or experiment changes; the hydrographs are important to determine impacts and plan to try to mitigate those impacts. In response to a question about the maximum release without using the bypass, it was stated that it's about 4600 cfs. In response to a question about what mechanisms are in place to keep minimum releases above 850 cfs (in relation to the Wild and Scenic designation), it was stated that the EIS and ROD set minimum dam releases at 800 cfs; the 2000 Flow and Temperature Recommendations have 800 cfs as the minimum release from Flaming Gorge Dam, and 900 as the minimum at Jensen with 1300 cfs recommended as the minimum target in Reach 3; the lower limit, 23 cubic meters per second (~812 cfs) is set by an agreement with the State of Utah to maintain a high-quality trout fishery in dam tailwaters (documented in the 2000 Flow and Temperature Recommendations). In response to whether the Wild and Scenic Rivers designation is already in place, it was stated that yes, the 2019 Dingle Act designated suitable reaches as Wild and Scenic: 5.3 miles of Wild, 8.5 miles of Recreation, and 49.2 miles of Scenic on the Green River; links to information were shared: [https://eplanning.blm.gov/public\\_projects/nepa/1501021/20004559/250005414/2019September6\\_INFO\\_FLYER\\_GREEN\\_RIVER.pdf](https://eplanning.blm.gov/public_projects/nepa/1501021/20004559/250005414/2019September6_INFO_FLYER_GREEN_RIVER.pdf), <https://www.rivers.gov/utah.php>.

Dale briefly presented release scenarios (Minimum Release, Proposed Plan, DROA A, and DROA Upper Range) for the other hydrologic classifications (Dry, Average Below Median, Average Above Median, and Moderately Wet), and showed the Flaming Gorge critical elevations projections from the March 2022 24-month study inflow scenarios including a possible DROA A projection (gray line). Critical elevations of boat ramps, restrooms, canyon accessibility, etc. are being considered in Drought Response Operations Agreement discussions. In response to a chat comment noting that Flaming Gorge is currently at elevation 6018 feet and that the plan sent out earlier stated that it would not be dropped below 6017.72 (a 4 inches below current) and expressing interest in elevation projections for the scenarios and asking if they'd be completed and available by the April meeting, it was stated that the hope is to have them by the April Working Group Meeting; under the DROA releases, the elevation would go below elevation 6017.72 feet. A question asked what the critical elevation for power production is, it is elevation 5890 feet (minimum pool for power generation).

### Drought Response Operations Planning

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Dale Hamilton, Division Manager, U. S. Bureau of Reclamation

Dale presented information on the background of the DROA, the Drought Response Operations (DRO) Plan Development, and the DRO Plan Development schedule and how it all dovetails into the Flaming Gorge Working Group.

The Colorado Basin is experiencing its 22<sup>nd</sup> year of drought. It has been the driest 22-year period on record. The combined storage of Lake Powell and Lake Mead has dropped from 95% full in 1999 to 28% full in 2022. Lake Powell elevation has dropped from 95% full in 1999 to elevation 3525 feet on March 14, 2022 (the elevation that the Drought Response Operations Agreement was intended to protect). Lake Mead elevations have decreased from 95% full in 1999 to 34% of capacity in 2022.

When the Flaming Gorge Working Group met last August, Lake Powell projections (from the June 2021 24-Month Study) indicated a 79% chance of elevations going below elevation 3525 feet, which triggered drought response operations last July. The current 24-Month Study projections show Lake Powell elevations below elevation 3525 feet for a month or so then coming back up above 3525 but returning

below 3525 feet again next year, with minimum probable projections approaching and even crossing the minimum power pool elevation of 3490 feet.

The DROA is an element of the DCP to address water elevations in key Colorado River reservoirs. The purpose is to minimize the risk of Lake Powell falling below the target elevation of 3525 feet (35 feet above the minimum power pool elevation of 3490 feet) and thereby fulfill compact obligations, maintain hydropower production, and minimize adverse effects to resources and infrastructure. The Agreement also directed Upper Basin States and Reclamation to develop a Drought Response Operations Plan. Since July and August, Reclamation and the Upper Basin states have been developing a Plan. The Drought Response Operations Plan has two parts: (1) the Plan Framework which provides general, static guidance including authorities and outlines what information should be included in Plan Attachments, and (2) the Plan Attachments which are specific to operations for a specific year and are developed each spring with adjustments as needed (similar to the development of the Flaming Gorge Operation Plan) based on hydrologic conditions. The Drought Response Operations Plan Framework has been largely completed and was presented at a January 28, 2022, webinar (a recording of the webinar can be found at <https://www.usbr.gov/dcp/droa.html>). The Plan Attachments for this year are still in development.

Information on Drought Response Operations Plan schedule was presented: the Plan Framework webinar was held Jan. 28<sup>th</sup> and public comments on the Plan Framework were due Feb. 18, the Drought Response Operations Agreement including the Plan Attachments are scheduled to be available on Apr. 15<sup>th</sup> and finalized on Apr. 29<sup>th</sup>. The Flaming Gorge Operation Plan schedule will be similar to past years: Flaming Gorge Working Group flow requests or comments for the Plan are due by the Apr. 19<sup>th</sup> Working Group Meeting, with Reclamation incorporating requests/comments and finalizing the Plan by May 2<sup>nd</sup>. The Flaming Gorge Operation Plan will include Drought Response Operations Plan operations specific to Flaming Gorge. **Please submit any comments on the Draft Flaming Gorge Operation Plan operations and potential impacts in writing to Dale Hamilton ([DTHamilton@usbr.gov](mailto:DTHamilton@usbr.gov)) and/or Nathaniel Todea ([NTodea@usbr.gov](mailto:NTodea@usbr.gov)) by April 19<sup>th</sup> (the sooner the better).**

In 2021, an additional 161,000 acre-feet of DROA water was released from upstream Initial Unit reservoirs: 125,000 acre-feet from Flaming Gorge, and 36,000 acre-feet from Blue Mesa. The additional releases for 2022 are still being determined. The states and Reclamation are looking at potential releases from Flaming Gorge; the releases will be limited based on the hydrologic condition; release limitations of the Environmental Impact Statement, Record of Decision and study plans; as well as coordination with the Recovery Program and this Flaming Gorge Working Group. From Flaming Gorge, the additional releases could vary from 0 acre-feet additional release to about 600,000 acre-feet of additional release which would be released primarily during the spring peak and elevated baseflow period. There is still an option for the Secretary of the Interior to declare an emergency which could lead to releases outside the mentioned limitations; but this possibility is not likely to happen. Coordination with State and local partners will continue.

In response to a question about how the proposed schedule comports with the schedule of the publication of the April 24-Month Study, it was stated that it is a tight schedule, but the DROA 2022 Plan cannot be finalized until after the April 24-Month Study. In response to a comment that in February WAPA submitted a flow request letter to the Bureau outlining WAPA's priorities for water releases from Flaming Gorge this spring, summer, and fall (including DROA releases), and would like to hear back on how the request gets considered within the development of the Operations Plan and DROA, it was stated that there is a lot going on and a lot to consider but Reclamation will make sure the request is considered in the plan. In response to a question about how the new (1991-2020) average snow water equivalent compares to the old (1981-2010) average, it was stated that the new average is lower but, in the Upper Green basin,

it wasn't as significant of a decrease as was seen in other basins that feed into Lake Powell. In response to a question about if there are any findings from Airborne Snow Observatory observations, it was stated that it hasn't taken place in the Upper Green basin. It was commented that in addition to submitting comments to Reclamation, comments can also be submitted to the State of Wyoming at the Wyoming State Engineer's office, Interstate Streams Division.

### Roundtable General Discussion/Q&A

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Dale opened the meeting for any discussion, comments, or questions—similar to other Reclamation working groups—group by group. USGS Utah Water Science Center's Ryan Rowland (rrowland@usgs) is available to answer any USGS streamflow questions. CREDA encouraged and offered to put Reclamation in touch with utility members that are in the process of determining the impacts of rates and drought to their utilities. BLM Price Field Office looks forward to working more closely as they continue Wild and Scenic River planning. (Most entities didn't have additional comments.)

### Next Meeting

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- Tuesday, April 19, 2022, at 9:00 am via WebEx virtual meeting
- Thursday, August 18, 2022, at 10:00 am via WebEx virtual meeting (tentative)  
(A chat comment was made that the August meeting may conflict with a Glen Canyon Adaptive Management Work Group (AMWG) Meeting.)

### Attendees

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Steve Craig	Fisherman	Dave Kanzer	Col. Riv. Water Cons. Dist.
Woody Bair	Flaming Gorge Resort	Emily Halvorsen	State of Colorado
Cody Perry	Friends of the Yampa	Colleen Cunningham	New Mexico ISC
Hattie Johnson	American Whitewater	Darrell Gillman	Utah Dept. Ag. And Food
Tim Gaylord	Holiday River Expeditions	Ryan Jones	Utah Dept. Ag. And Food
Darren Bowcutt	GROGA, WRF Guides	Andrew Dutson	Utah Div. Water Rights
Tony Valdez	Buckboard Marina at FG	Trina Hedrick	Utah Div. Wildlife Resrc.
John Rauch	Cedar Springs Marina	Matt Breen	Utah Div. Wildlife Resrc.
Jerry Taylor	Lucerne Valley Marina	Ryan Mosley	Utah Div. Wildlife Resrc.
Damien Taylor	Lucerne Valley Marina	John Walrath	Wyo. Game and Fish Dept.
Brant Williams	Lucerne Valley Marina	Robb Keith	Wyo. Game and Fish Dept.
Jessica Williams	Lucerne Valley Marina	Chris Brown	State of Wyoming
Luke Wilson	GROGA	Leslie James	Col. Riv. Energy Dist. Assoc
Simone Griffin	BlueRibbon Coalition	George Weekley	U. S. Fish & Wildlife Service
Bruce Lavoie	OARS	Tildon Jones	U. S. Fish & Wildlife Service
Bart Miller	Western Resource Adv.	Julie Stahl	U. S. Fish & Wildlife Service
Laura Belanger	Western Resource Adv.	Chrystal Dean	Western Area Power Admin.
Grizz Oleen	Caerus Oil and Gas LLC	Derek Fryer	Western Area Power Admin.
Ted Rampton		Shane Capron	Western Area Power Admin.
Quinn Kirby	Dumas/Jicarilla Apache N.	Brenda Alcorn	Col. Basin Riv. Forecast Ctr.
George Gavrielides	Southern Ute Tribe	Jason Griswold	Nat. Park Service
Kevin Bestgen	Colorado State University	Rob Billerbeck	Nat. Park Service
Matt Cazier	Uintah County	Melissa Trammell	Nat. Park Service
Jenny Swenson	Grand County Sheriff's Ofc	Mark Wondzell	Nat. Park Service
Ryan Kelly	FG Chamber of Commerce	Jaydon Mead	Bureau of Land Management
Mark Kot	Rock Springs WWDC	Jessica Farmer	Bureau of Land Management
Michelle Garrison	Colorado Water Cons. Brd.	Kevin Clegg	U. S. Forest Service
Jared Hansen	Cent. Utah Water Cons. Dist.	Stephanie Anderson	U. S. Forest Service

Marshall Alford	U. S. Forest Service	Erik Knight	U. S. Bureau of Reclamation
Jayson Roundy	U. S. Forest Service	Gary Henrie	U. S. Bureau of Reclamation
Coleson Kastelic	U. S. Forest Service	Heather Patno	U. S. Bureau of Reclamation
Logan Linnan	U. S. Forest Service	Jared Baxter	U. S. Bureau of Reclamation
Brett Heath	U. S. Forest Service	Kent Kofford	U. S. Bureau of Reclamation
Aaron Selig	U. S. Forest Service	Mark Delorey	U. S. Bureau of Reclamation
Ron Griffiths	U. S. Geological Survey	Nanette Gale	U. S. Bureau of Reclamation
Ryan Rowland	U. S. Geological Survey	Nathaniel Todea	U. S. Bureau of Reclamation
Chris Cutler	U. S. Bureau of Reclamation	Peter Crookston	U. S. Bureau of Reclamation
Chris Watt	U. S. Bureau of Reclamation	Rick Baxter	U. S. Bureau of Reclamation
Dale Hamilton	U. S. Bureau of Reclamation	Ryan Christianson	U. S. Bureau of Reclamation
Dave Klein	U. S. Bureau of Reclamation	Scott Elliott	U. S. Bureau of Reclamation
Dave Speas	U. S. Bureau of Reclamation	Susan Behery	U. S. Bureau of Reclamation
Ed Warner	U. S. Bureau of Reclamation		