

Glen Canyon Dam Adaptive Management Work Group
Agenda Item Form
August 24-25, 2016

Agenda Item

Basin Hydrology and Water Year (WY) 2017 Hydrograph

Purpose of Agenda Item

To send a recommended WY 2017 Glen Canyon Dam hydrograph to the Secretary of the Interior.

Action Requested

Motion requested. The motion (see page 2) is recommended by TWG. However, no motion is officially made unless and until an AMWG member makes the motion in accordance with the AMWG Operating Procedures.

Presenters

Paul Davidson, Hydraulic Engineer, Bureau of Reclamation, Upper Colorado Region
Vineetha Kartha, State of Arizona AMWG Alternate and Technical Work Group Chair

Previous Action Taken

- ✓ **June 14, 2016:** TWG passed the WY 2017 Hydrograph motion by consensus.
- ✓ **August 27, 2015:** At its August 2015 meeting, the AMWG passed a motion to recommend to the Secretary of the Interior her approval of the DOI-DOE Proposed Hydrograph for WY 2016. Previous year hydrographs (water years 2012, 2013, 2014 and 2015) were also recommended by the TWG and the AMWG and approved by the Secretary of the Interior

Relevant Science

The TWG has been presented with a proposal for the WY 2017 Hydrograph and operational scenarios based on the range of current projected hydrology. The anticipated range of conditions and objectives for 2017 remain similar to previous years, therefore, the targeted approach adopted as the 2012, 2013, 2014, 2015, and 2016 Hydrographs is recommended again for the WY 2017 Hydrograph.

Summary of Presentation and Background Information

Basin Hydrology

The first portion of the presentation is intended to provide pertinent information to AMWG members on current water supply and forecasted hydrologic conditions within the Upper Colorado River Basin. The presentation will focus on projected reservoir conditions and operations at Lake Powell/Glen Canyon Dam for the remainder of WY 2016 and provide an outlook for WY 2017.

WY 2016 Hydrograph

The second portion of the presentation will cover the potential range of annual release volumes from Lake Powell in WY 2017 and the proposed WY 2017 Hydrograph, which is unchanged from that which was recommended and approved for WY 2016. Vineetha Kartha, TWG Chair, will provide a brief summary of the TWG deliberation and motion.

Motion requested: The following proposed motion is based on the recommendation from the TWG. However, no motion is presumed to be made unless and until an AMWG member makes the motion in accordance with the AMWG Operating Procedures.

AMWG recommends to the Secretary of the Interior for her approval the following Water Year 2017 Hydrograph for Glen Canyon Dam.

- Annual Release Volumes will be determined by the 2007 Interim Guidelines and shall be reviewed and adopted through the normal annual operating plan process (in consultation with the Basin States as appropriate).
- Monthly Release Volumes are anticipated to shift depending upon: (1) the projected Annual Release Volume, (2) power plant capacity, and (3) the magnitude of a potential High Flow Experiment.
- Monthly Release Volumes may vary within the targets identified below. Any remaining monthly operational flexibility will be used for existing power production operations under the Modified Low Fluctuating Flow (MLFF) alternative selected by the 1996 ROD and contained in the 1995 FEIS and in compliance with all applicable NEPA compliance documents (HFE EA, NNFC EA, 2007 Interim Guidelines). Monthly release volumes proposed in this hydrograph will not affect operating tier determinations for Lakes Powell and Mead under the 2007 Interim Guidelines.
- Release objective for June is:
 - 600 to 650 kaf for annual releases below 9.0 maf
 - 800 kaf for annual releases of 9.0 maf to less than 9.5 maf
 - 900 kaf for annual releases of 9.5 maf to less than 10 maf
 - Greater than 900 kaf for annual releases 10 maf and greater
- Release objective for August is:
 - 800 kaf for annual release below 9.0 maf
 - 900 kaf for annual releases of 9.0 maf to less than 10 maf
 - Greater than 900 kaf for annual releases 10 maf and greater
- Release objective for September is:
 - 600 kaf for annual releases below 9.0 maf
 - 700 kaf for annual releases of 9.0 maf to less than 10.0 maf
 - 800 kaf or greater for annual releases of 10.0 maf or greater; up to power plant capacity for high equalization releases
- Monthly Release Volumes will generally strive to maintain 600 kaf levels in the shoulder months (spring and fall) and 800 kaf in the December/January and July/August timeframe.

Additionally, the Bureau of Reclamation will continue to apply best professional judgment in conducting actual operations and in response to changing conditions throughout the water year. Such efforts will continue to be undertaken in coordination with the DOI/DOE agencies and in consultation with the Basin States as appropriate, to consider changing conditions and adjust projected operations in a manner consistent with the objectives of these parameters as stated above and pursuant to the Law of the River.