

April 23, 2015
Aspinall Operations Meeting Notes

The purpose of operation meetings-- usually held in January, April, and August-- is to gather input for determining upcoming operations for Blue Mesa, Morrow Point, and Crystal Reservoirs. This input is used in Reclamation's development of specific operations for the Aspinall Unit and for the overall 24-month study (www.usbr.gov/uc/water/crsp/studies/index.html) for operation of Reclamation projects in the Upper Colorado River Basin, which include plans for Glen Canyon, Flaming Gorge, and Navajo Units, as well as the Aspinall Unit. Operation of the Aspinall Unit considers projected inflows to its reservoirs, hydropower and flood control needs, existing water rights, minimum instream flows, target elevations for reservoirs, flow needs for endangered fish and other resources, recreation, and other factors. In addition, the meetings are used to coordinate activities and exchange information among agencies, water users, and other interested parties concerning the Gunnison River.

Handouts provided included data on 2015 operations; inflows to the reservoirs to date; and projected most probable, minimum, and maximum inflow forecasts for the 2015 water year.

A Record of Decision for the Aspinall Unit Operations Environmental Impact Statement was signed on May 3, 2012. The EIS modifies the operations of the Aspinall Unit to provide sufficient releases of water at times, quantities, and durations necessary to avoid jeopardy to endangered fish species and adverse modification of their designated critical habitat while maintaining and continuing to meet authorized purposes of the Aspinall Unit. In addition, the water right for the Black Canyon of the Gunnison National Park has been quantified and adjudicated. These operation meetings are used to discuss proposals for long-term operation plans to address these and related resource management issues.

General: Blue Mesa Reservoir capacities are described in meetings as follows: The reservoir holds 940,700 acre-feet (af). Active capacity is 748,400 af, inactive capacity is 81,100 af, and dead storage is 111,200 af. Live capacity is the active plus inactive, which totals 829,500 af. Discussions during operation meetings use live capacity.

2015 Operations:

Snow Conditions: The 2014-2105 winter started off fairly well with decent snow accumulation in November and December. However, January through March were very dry with only a couple of storms of significance. The first half of April continued the dry trend and snowpack in the Gunnison Basin peaked at 70% of normal in the first half of March, almost a month earlier than normal. Snow accumulation in the Upper Gunnison Basin was slightly better with a snowpack peak of 76% of normal.

Operations Past and Present: Over the December 2014 to mid-April 2015 time period, Blue Mesa content dropped to 545,000 acre-feet, before reservoir content began increasing with the start of early runoff in mid-March. During this same time period, Gunnison River flows at Whitewater were above the 1,050 cfs baseflow target. As of April 21, 2015, the conditions of reservoirs in the basin are as follows:

| Reservoir | % of Capacity |
|------------------|----------------------|
| Paonia | 69% |
| Taylor Park | 76% |
| Crystal | 88% |
| Morrow Point | 91% |
| Blue Mesa | 72% |
| Ridgway | 89% |
| Silver Jack | 70% |

Forecasts and Future Operations: The April 15th Blue Mesa Forecasted April-July Inflow was 450,000 acre-feet, which is 66% of average. This forecast would categorize 2015 as a Moderately Dry year. If the forecast were to remain unchanged, a Moderately Dry year would result in a desired Whitewater peak of 5,396 cfs. There would be no duration of half bank flows. Assuming the forecast doesn't change for the May 1st forecast, the Black Canyon Peak Flow target would be 2,206 cfs, with May 1st to July 25th shoulder flows of 300 cfs. Baseflow targets at Whitewater would be 890 cfs for April and May before increasing to 1,050 for June through August.

Should these forecasted inflow conditions remain unchanged, a possible spring peak operations scenario would involve ramping up releases around mid-May to reach the Whitewater peak. Flows would be just over 2,700 cfs in the Black Canyon. Down ramping would begin at the end of May, with flows returning to around 600 cfs in the Black Canyon in early June. The actual timing of the spring operation will be dependent on the timing of peak flows on the North Fork of the Gunnison River. Blue Mesa Reservoir is expected to reach a maximum content of around 760,000 acre-feet this year, which is 92% full.

2015 Weather Outlook:

The existence of weak El Nino conditions is 80% likely for the spring, summer and fall months of 2015. El Nino conditions generally result in dry and warm conditions north of Colorado and wet and cool conditions south of Colorado, however the current weather patterns haven't been classical El Nino patterns. There is a probability of increased precipitation throughout the spring and summer months.

| Forecasts | | |
|--------------------|--------------------------------|----------------------------------|
| Time Period | Temperature | Precipitation |
| 6-10 Day | ↑ probability of ↑ temperature | ↑ probability of ↓ precipitation |
| 8-14 Day | ↑ probability of ↑ temperature | ↑ probability of ↓ precipitation |
| May | ↓ temperature | ↑ probability of ↑ precipitation |
| May/June/July | ↓ temperature | ↑ probability of ↑ precipitation |
| June/July/August | ↓ temperature | ↑ probability of ↑ precipitation |

**KEY: ↑ = increased; ↓ = decreased; ↓↑ = equal chances

The drought monitor shows some expansion of drought conditions in Colorado since January. Drought conditions are expected to continue with some possibility of improvement during the expected wetter conditions in the remainder of spring.

Aspinall Release Requests:

1. Ed, Commercial Operations in Gorge – they like flows in the 600 cfs range, the outfitters seconded this.
2. Colorado Parks and Wildlife – In the first week of October they would like 800 cfs for the Ute Park Survey.

Agency Reports:

- 1) Trout Unlimited – Thank you to Reclamation for the additional reports we have been sending out since January. They wanted to know about the flow drop to 150 cfs during maintenance, what happened and how can it be prevented in the future.
- 2) Black Canyon Anglers – Thanks for the reports.
- 3) National Park Service – Seasonal employees have been hired and mussel monitoring has started. Mussel monitoring started two weeks earlier this year. The lottery at Red Rock had a record number of registrations this year. They are coordinating with WAPA to get the tour boat operating.
- 4) UVWUA – All the canals are almost full.
- 5) Colorado Parks and Wildlife – they are trying to rebuild the Kokanee numbers in Blue Mesa.
- 6) WAPA – The drought is sad, they are glad energy prices are low right now.
- 7) Water Center – On May 7 they will host a John Wesley Powell presentation and June 21 is the State of River presentation at the Avalon Theater.
- 8) CWCB – their next meeting is May 20 and 21 in Sterling, Colo. The agenda will be out in the next couple weeks. They are working to create incentives for harvesting non-native fish, next year they hope to reduce the number of small mouth bass in Ridgway Reservoir.
- 9) DNR – This is shaping up to be a busy year; they have already had over 20 calls.
- 10) Regional Power Office – Morrow Point stilling basin needs repairs after last year's flows.
- 11) Montrose Power Office – They will be repairing the power jet this year. Security measures have been increased for powerplant tours.