

**Aspinall Unit Operations Meeting
January 21, 2016 1:00 PM**

Background: 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. Meetings regarding the operations of the Aspinall Unit are open to stakeholders, and take place tri-annually, with meetings typically occurring in January, April, and August of each year.

Aspinall Unit Operations – Erik Knight (USBR)

Snow Conditions: October 2015 was below average with the monthly precipitation in the majority of the Gunnison Basin between 90% and 100% of average. November was wetter and December 2015 had wet conditions throughout the basin, with monthly precipitation in the 110% to 150% range. Conditions were drier in January 2016, and the Gunnison Basin’s snow water equivalent is now at 112% of normal.

Operations Past and Present: Between September 2015 and mid-January 2016, Blue Mesa content dropped 175,000 acre-feet, resulting in the reservoir being 5.5 feet over the icing target. Prolonged maintenance at the Crystal and Morrow Point powerplants affected the ability to release the necessary amount of water to lower Blue Mesa Reservoir down to the winter icing target by December 31st.

During this same time period, Gunnison River flows at Whitewater fluctuated between 1,200 and 2,000 cfs, well above the baseflow target for this time of year. As of January 18, 2016, the conditions of reservoirs in the basin are as follows:

Reservoir	% of Capacity
Paonia	7%
Taylor Park	66%
Crystal	85%
Morrow Point	96%
Blue Mesa	73%
Ridgway	76%
Silver Jack	37%

Forecasts and Future Operations: The January 1st Blue Mesa Forecasted April-July Inflow was 610,000 acre-feet. By mid-January, this forecast dropped to 590,000 acre-feet. This forecast would categorize 2016 as an Average Dry year. If the forecast were to remain unchanged, an Average Dry year would result in a desired Whitewater peak of 8,070 cfs. The duration of half bank flows (also 8,070 cfs) would be 10 days. Assuming the forecast doesn’t change for the May 1st forecast, the Black Canyon peak flow target would be 4,340 cfs, with May 1st to July 25th shoulder flows of 381 cfs. Baseflow targets at Whitewater will remain at 1,050 cfs through May before increasing to 1,500 cfs for June and July.

Should these forecasted inflow conditions remain unchanged, a possible spring peak operation scenario would involve ramping up releases for 7 days to reach the Whitewater peak and the 10 day half bankfull duration. Flows would be just over 5,000 cfs in the Black Canyon.

Down ramping would begin after the 10 days of half bankfull duration at Whitewater, with flows returning to 800 cfs in the Black Canyon in early June.

Runoff forecasts for other stream sites in the Gunnison Basin range from 80% to 90% of average on the northern side of the Upper Gunnison Basin and 100% to 105% of average on the southern side of the Upper Gunnison Basin. The North Fork of the Gunnison is forecast to receive 95% of average runoff while the Uncompahgre River Basin is forecast to receive 100% of average runoff.

El Nino: El Nino is currently in one of its strongest phases in the last 65 years. El Nino conditions are forecast to persist at least through spring time and maybe into the summer. Unfortunately for the Gunnison Basin, El Nino conditions do not provide any correlated prediction of spring time runoff. Strong El Nino years have been associated with both above and below average springtime runoff volumes into Blue Mesa Reservoir.

Gunnison River Icing Overview – Erik Knight (USBR)

Several ice jam events have occurred on the Taylor and Gunnison Rivers this winter. A review of the historical studies was presented at the meeting to provide an understanding of what is known and not known about the process of ice jam occurrences on these rivers.

Findings from this research review show that icing conditions on the Gunnison River are a product of air temperatures, current river ice cover, Blue Mesa Reservoir elevation, flow in the river and of the river channel geometry and gradient. Prediction of the necessary pattern of air temperatures to cause river icing is very difficult. Ice jams on the Gunnison River can initiate at the location of a frozen reservoir, while progression of the ice jam is dependent on air temperatures and river ice cover. The ice jam events on the Taylor River were completely independent of the reservoir level at Blue Mesa and were possibly driven by natural or man-made changes in the channel geometry and/or gradient of the Taylor River.

Special Flow Requests and Discussion

Reports of Agencies and Organizations

USGS – Wary of ice jams during field visits. Typically the dangerous periods are cold periods followed by a warming trend, but that's not what happened at Almont this year. Possibility of measuring flow in icing conditions using acoustics.

BLM – Desirable to have the spring peak in May.

NPS – New water quality management coming on board soon.

FWS – Fish passage at Redlands has been operating for 20 years. Everything working well.

WAPA – Energy prices are soft due to coal generation being down, softest in middle of day due to solar generation.

Power Office – Annual maintenance at Morrow Pt coming up, followed by maintenance at Blue Mesa. Morrow Pt stilling basin to be surveyed after high flows have passed.

DWR – Full crew of water commissioners. 13 Kaf of second fill in Taylor Park, 55 Kaf of first fill in Taylor Park. Filling second fill now.

CWCB – Board meeting next Mon & Tues before Water Congress. Species Conservation Trust Bill in consideration. Most projects are in Gunnison Basin: Ridgway spillway net, selenium mitigation.

River District – West Slope Roundtable technical study – engage Hydros to look at risks to power pool at Lake Powell. Grant program deadline is Jan 29 - \$150,000.

Tri-County – Winter maintenance ongoing. Hydroplant is running. Smallmouth bass will dictate operations this year.

UVWUA – Wrapping up winter piping projects, then moving on to spring clean-up. Start irrigating by mid-March or April. Drop 5 ready for water & will produce power by mid-summer.

Upper Gunnison – Whitewater festival is on June 22.

Trout Unlimited – Appreciate the operations updates, encourage that to continue.

Black Canyon Anglers – Ran the gorge on Jan 1st – no ice buildup in gorge.

NEXT MEETING: Thursday, April 28, 2016 @ 1:00 PM at the WCAO Reclamation Office in Grand Junction, CO.

January 21, 2016 Aspinall Operation Meeting Attendance

***indicates person attended meeting in person or by phone**

Argonne National Laboratory.....John Hayse, Kirk Lagory
Black Canyon Anglers..... Derek Kehmeier*, Richard Dudginski
Bureau of Land Management.....Rooster Barnhart, Edd Franz*, Wanda Lassiter*
Bureau of Reclamation.....Ed Warner, Ted Dunn, Ryan Christianson*, Jenny Hamilton, Paul Davidson, Justyn Liff, Erik Knight*,Rick Clayton*, Grant Watson*, Larry Lingerfelt, Randy Kramer*, Lee Traynham*, David Klein, Dale Carpenter*, Lesley McWhirter*
CSAS-CODOS.....Chris Landry
City of Grand Junction.....Terry Franklin, Greg Trainor
Club 20.....Reeves Brown
Colorado Department of Agriculture.....Jim Miller
Colorado River Energy Distributors.....Leslie James
Colorado River Water Conservation District...Dave Kanzer*, Jim Pokrandt, Eric Kuhn
Colorado State University.....Brett Johnson
Colorado Division of Water Resources...Pat McDermott, Bob Hurford*, Scott King, Richard Rozman, Luke Reschke, Jason Ullmann*
Colorado Parks and Wildlife....Jay Skinner, John Alves, Dan Brauch, Dan Kowalski, David Graf, Eric Gardinio
Colorado Water Conservation Board...Michelle Garrison*, Ray Alvarado, Steve Miller , Karen Kwon
Daily Sentinel.....Dave Buchanan
Delta County Independent.....Bob Borchardt
Delta County Commissioners.....
Delta County.....
City of Delta.....Steve Glammeyer, Glen Black
Delta County Emergency Management.....Jeff Wright
Fish and Wildlife Service.....Dale Ryden*, Jana Mohrman
Gunnison Country Times.....Michelle Burkhart
Gunnison Basin POWER..... Butch Clark, Ramon Reed
Gunnison County Commissioners.....
Gunnison River Expeditions.....Al DeGrange
High Country Citizens Alliance.....Steve Glazer, Jennifer Boch, Wendy McDermott
Interior Solicitor.....John Bezdek, Peter Fahmy
City of Montrose.....Stephen Alcorn, Bob Nicholson
Montrose Daily Press.....Katharhynn Heidelberg*
National Drought Mitigation Center.....Donna Woudenberg
NOAA.....Andrea Ray, Robert Webb, Klaus Wolter, Brad Udall, Kevin Werner, Chad McNutt, Tracy Cox, Brenda Alcorn, John Lhotak, Greg Smith
National Park Service.....Michael Dale*, Ken Stahlnecker*, Christine Landrum, Mark Wondzell, Melissa Trammell, Jenny Howes, Rob Billerbeck, Bruce Noble*

National Weather Service..... Aldis Strautins
NRCS.....Brian Domonkos, Lexi Landers, Karl Wetlaufer,
Mage Hultstrand
North Fork Water Conservancy.....Tom Alvey
Project 7.....Adam Turner*
Recovery Program.....Tom Pitts, Tom Chart
Redland Water and Power.....
Ridgway Guide Service.....Tim Paterson, Matt McCannel
Tri-County Water.....Mike Berry*, Ion Spor*, Kathleen Margetts, Teddy Earley*
Trout Unlimited.....Pat Oglesby, Marshall Pendergrass*, Cary Denison*
Drew Peterzell, John Trammell
UVWUA...Ed Suppes*, Steve Fletcher*, Steve Shea, Aaron English*, Dennis Veo*,
Michelle Decker
Upper Gunnison River Water.....John McClow*, Frank Kugel*, Greg Peterson
USGS.....Ken Leib*, Bob Jenkins, Steve Anders*, Trisha Solberg
Western Area Power...Clayton Palmer, Jeff Ackerman*, Jerry Wilhite, Nancy Scheid*,
Tim Vigil*, Tanya Newman, Chrystal Dean, Tyson Taylor*,