

Aspinall Unit Operations Meeting September 4, 2014, 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.

2014 Aspinall Unit Operations – Erik Knight (USBR)

Spring Runoff: The observed unregulated inflow ended up being about as close to the forecasted unregulated inflow as one can get. Blue Mesa inflow was 849 KAF, which is 126% of average, putting 2014 in the top 30% of years. Many of the reservoirs experienced runoff over 100% of average. Paonia experienced the lowest amount of runoff at about 67% of average.

Black Canyon Peak: With the May 1 forecast of 850 KAF, the black canyon peak flow determination was 6,427 cfs. The actual 24 hour peak ended up being 9,200 cfs.

Lower Gunnison River Targets: 2014 met the conditions for a Moderately Wet year, which corresponds to a peak flow of 14,350 cfs. Because the April-July Forecast fell between 831-1123 KAF, the lower Gunnison river target at Whitewater included a Peak Flow of 14,350 cfs for a 10 day duration, and a half bank flow of 8,070 cfs for a 40 day duration.

Timing the peak at Whitewater with the peaks of tributaries to the Gunnison river is necessary to help meet the targets. The North Fork peaked on June 2. Paonia Reservoir needs to spill to get water downstream to help meet the targets. This year the decision to significantly increase the flow at Aspinall needed to be made 10 days in advance to ramp up. The attempt to match the Gunnison and the North Fork peaks would have been successful, however there was a two day delay because the Colorado River was peaking at the same time, and there was some concern with high water in the Colorado River in Grand Junction below the confluence with the Gunnison River. As a result, the peak at Whitewater reached 12,500 cfs on June 6. There was not enough contribution from the tributaries to maintain the half bankfull target without re-opening the gates at Morrow Point and Blue Mesa. The half bankfull target was met for a duration of 24 days, with the ramp down occurring on June 24.

Summer Conditions: In June, the Gunnison Basin experienced only 5-25% of its normal precipitation. Precipitation increased to 25-100%, with some areas experiencing up to 300% of average. August brought more moisture, with the eastern half of the basin seeing precipitation between 50-100% of average the western half seeing 100-300% of average.

Baseflow targets at Whitewater were 1500 cfs for July and August, and 1050 cfs for September. These targets were met throughout the three month period. There is enough water remaining in

Blue Mesa that some additional releases will need to be made in order to get the reservoir down to the winter target level.

Projected Operations: Releases will be increased in November and December to meet the end of year winter target demands and hydropower demands, which increase in winter. The releases will be drawn down prior to the Brown Trout spawn so the eggs aren't left high and dry. Plans for the future include open communication lines with all stakeholders.

2014 Weather Outlook – Erik Knight (USBR)

2014 began with a transition into a mild El Nino. The probabilities for El Nino will increase October through March. El Nino typically means a dry and warm climate in northern Colorado and a wet and cool climate in southern Colorado. The Gunnison Basin lies in between the two, but wetter conditions are anticipated. The overall outlook through December is generally lower than average temperatures and high than average precipitation. The drought monitor shows a decrease in drought conditions throughout the Gunnison Basin since April 2014.

Colorado Dust on Snow Update – Chris Landry (CSAS)

Chris has been studying the effects of dust events on snow, and has found that more severe dust events correlate with spikes in the hydrographs of nearby streams and rivers. Albedo, the measure of the reflectivity of the earth's surface, lowers as dust accumulates on snow. With the decrease in energy reflecting off the earth's surface, the snow absorbs the energy and subsequently melts faster, correlating with the spikes we see in the hydrographs. Studies are also underway to identify the sources of the dust. Areas in Arizona and New Mexico have been major contributors. There are no mitigative strategies underway at this time. Graphs showing these correlations are available on the Center for Snow and Avalanche Studies website.

Special Flow Requests and Discussion

The Gorge fish census will take place on October 4 – 9. Typically the census is done with river flows between 600 and 800 cfs.

Reports of Agencies and Organizations

CSAS: The Upper Uncompahgre basin is healthy. The Spruce Beetle is not having a big effect in the area yet.

UVWUA: In mid-March of 2015, they plan on completing some maintenance work on their diversion structure. They'll require flows around 300 cfs, with a 400 cfs max. This will be discussed more during the next Operations meeting. Work will probably take one day. The dam has panels which were designed to come off. Some panels came off in the high flows this year.

River District: The CRWCD annual seminar is September 19th. They have put out a \$40 million grant application for the Lower Gunnison Basin, which is really focused on agriculture. September 18th is their board meeting in Montrose.

CWCB: Their board meeting will take place on September 11th and 12th in Colorado Springs. Water in Lake Powell is getting low, so additional water sources in larger upstream reservoirs have been identified. Flaming Gorge has the most water available for a short-term supply. Lake Mead may also be in trouble. CWCB is discussing this with the Secretary of the Interior.

WAPA: Estimate \$4-5 million lost due to bypassing the powerplant this year.

NPS: The Morrow Point boat tour has been extended. The Superintendent position has closed, and they are currently doing interviews. They hope to have a selection by the end of this month or early October. While the spilling was occurring this summer, visitation went up 5,000%.

FWS: FWS has 6 monitoring sites on the Gunnison River. 4 of them appear to be duplicates of USGS sites. They are thinking of discontinuing the FWS sites. An email will be sent out to request comments/questions/concerns with removing the FWS monitoring sites.

USGS: Their stream gage funding has been bumped up, so more gages will be added throughout the state, including the Gunnison Basin. The Selenium Management Program has been moving forward, and has just finalized their new Science Plan. USGS is continuing to monitor the sediment in Paonia.

Greg Smith: There are annual verifications of inflow forecast, and a webinar is coming up to discuss the past season's probability in early November. He will send something out about this.

BLM: The high water has moved the sediment out of the gorge. Visitation significantly dropped during the high water, and wilderness permits were down 60% of average for the year. There was good fishing post high water. The lower numbers will have a hit on their budget for next year.

Tri-County: The powerplant is operating, but will be shut down next month for maintenance. They will not change operations in terms of releases during the shutdown.

NEXT MEETING: Thursday, January 22, 2015 @ 1:00 PM at the Holiday Inn in Montrose, CO.

September 4, 2014 Aspinnall Operation Meeting Attendance

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

Argonne National Laboratory.....John Hayse, Kirk Lagory
Black Canyon Anglers.....Ben Olson*, Derek Kehmeier*, Richard Dudginski
Bureau of Land Management.....Rooster Barnhart, Edd Franz*, Karen Tucker
Bureau of Reclamation.....Ed Warner*, Ted Dunn, Ryan Christianson*, Jenny Hamilton*, Sandra Caskey, Terry Stroh, Jane Blair, Paul Davidson*, Justyn Hock*, Erik Knight*, Rick Clayton*, Grant Watson*, Larry Lingerfelt
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.....Rob Fiedler
Fish and Wildlife Service.....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
Montrose Daily Press.....James Shea, Jason Monroe, Caitlin Switzer
National Drought Mitigation Center.....Donna Woudenberg
NOAA.....Andrea Ray, Robert Webb, Klaus Wieckmann, 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*
National Weather Service..... Aldis Strautins
NRCS.....
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, Norm Brooks
Trout Unlimited.....Pat Oglesby, Marshall Pendergrass, Cary Denison
Drew Peternel, 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.....David Brown, Bob Jenkins, Steve Anders, Trisha Solberg
Western Area Power...Clayton Palmer, Jeff Ackerman*, Jerry Wilhite*, Nancy Scheid*,
Tim Vigil, Tanya Newman, Chrystal Dean

Western Colorado Congress.....Fred Wetlaufer
Western Resource Advocates.....Bart Miller
Xcel Energy.....Fred Eggleston