## Aspinall Unit Operation Coordination Meeting April 24, 2008

<u>Participation</u>: This meeting was held in Reclamation's Grand Junction Office. Attendees are noted on the distribution list. Handouts are available for review at <a href="http://www.usbr.gov/uc/wcao/water/rsvrs/mtgs/amcurrnt.html">http://www.usbr.gov/uc/wcao/water/rsvrs/mtgs/amcurrnt.html</a>

Purpose of Meeting: The purpose of operation meetings-- 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 development of specific operations for the Aspinall Unit and for the overall 24-month study 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 2007-2008 operations; projected inflows to the reservoirs for 2008; and potential operation plans under probable maximum, most probable, and probable minimum runoff forecasts for 2008.

Activities related to long-term operation planning were also discussed at the meeting. Field studies leading to flow recommendations (Fish and Wildlife Service Flow Recommendations) to help recover downstream endangered fish and studies to quantify a Federal reserved water right have been completed for the Black Canyon of the Gunnison National Park.

The Fish and Wildlife Service flow recommendations for endangered fish have been completed and published, and an Aspinall Operations EIS has been initiated to evaluate alternative operations to help meet these recommendations. These operation meetings will be used more in the future to discuss proposals for long-term operation plans to address these and related resource management issues.

<u>Forecasts:</u> The Colorado Basin River Forecast Center gave a presentation on how runoff forecasts are produced (see <a href="www.cbrfc.noaa.gov">www.cbrfc.noaa.gov</a>). Presentation can be viewed at <a href="http://www.usbr.gov/uc/wcao/water/rsvrs/mtgs/amcurrnt.html">http://www.usbr.gov/uc/wcao/water/rsvrs/mtgs/amcurrnt.html</a>. Forecasts are based on snow/water/reservoir conditions, weather patterns, and comparisons with historical data.

## **Operations:**

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

January-April 2008 Operations:

The December 31 icing target for Blue Mesa was met. Unit releases were around 1,200 cfs on January 1 and were increased to around 1,800 cfs in January and February in response to the increasing snowpack to avoid the need to bypass power plants later in the year.

In March Reclamation conducted sonar and dive inspections of the Crystal Dam stilling basin. This required ceasing releases for up to 3 hours to conduct the work. Inspections occurred on March 6 and March 18 and 19. Water was maintained downstream by regulating releases from the pool upstream of the Gunnison Tunnel Diversion Dam. Releases were ramped during the inspections to protect the fishery and ramping rates were adjusted based on observations during the initial inspection. Reclamation will give a full report on the inspection at the August operations meeting, but in summary the inspections were very successful and the stilling basin is in good condition. The CDOW reported that some 2007 year class fish were stranded and some brown trout redds dewatered under the low flow conditions.

In late March and into April releases were increased and bypasses at Crystal began. Releases on April 24 were approximately 3,600 cfs, including a 1,500 cfs bypass.

## 2008 Operations:

Early winter snowfall was lower than normal; however, late December and early January storms increased the snow pack significantly. The January 1 forecasted inflow to Blue Mesa was 780,000 af or 108 percent of average. By January 15, this number increased to 815,000 af. On April 1 the inflow was forecasted at 1,060,000 af or 146 percent of average. Based on these values, the year is categorized as "moderately wet", but is very close to a "wet" year. For comparison purposes inflow to Blue Mesa in recent wetter years was:

1984-199% 1986-137% 1995-173% 1997-147%

Under most probable conditions, Crystal will be operated at full power plant capacity from April into September, and Blue Mesa would be expected to fill under min, most probable, and max forecast conditions. Flows in the Black Canyon and Gunnison Gorge should remain above 3,000 cfs well into July with flows in the 1,000-1,500 cfs range in late summer and fall.

Under most probable conditions, a spill at Crystal is likely to occur. The timing of the spill is dependent on runoff timing and whether a decision is made to "force" a spill earlier than would occur naturally. Past runoff patterns were displayed on graphs showing that in addition to inflow quantity, weather patterns can greatly influence timing and magnitude of streamflows. If a spill is not "forced" the spill would likely occur in late June. During a spill, flows could increase to 4,000-7,000 cfs in the Black Canyon. It was pointed out that forecasts can still change and weather conditions over the next 2 months can significantly affect projections. This year flow levels in the Delta area are a concern. Preliminary forecasts for the North Fork near Somerset show a most probable peak the third week in May at around 5,000 cfs (mean

daily). This of course can be affected significantly by weather patterns. A peak at Delta was projected around the same timeframe with a peak flow of 7,200 cfs + flows being released from the Aspinall Unit. In other words, if the Aspinall Unit was releasing 5,000 cfs into the Black Canyon at that time, peaks at Delta would be around 12,200 cfs.

Reclamation stated that the operational priority this spring will be flood control.

Input was requested from those in attendance concerning 2008 operations:

Several representatives from Trout Unlimited suggested forcing a spill prior to June to better protect rainbow trout recruitment and to reduce the chances or magnitude of a June spill which can be detrimental to rainbow trout hatched this year. High water is needed to move sediment from the river and protective ramping rates are recommended to reduce stranding of young fish.

The city/county of Delta is concerned with flood damage from peak flows; Delta and Reclamation will meet later to discuss planning and communications.

The National Park Service would like to see a peak of 10,000 cfs in the Black Canyon, subject to Delta flooding concerns. The Fish and Wildlife Service would like to see flows at Whitewater around 14,000 cfs for 15-25 days, subject to Delta flooding concerns.

The Bureau of Land Management would like at least 4 days prior notification of significant flow changes if possible to notify river users, particularly commercial guides that have clients travelling to the area. An early peak would probably be better for recreation than a late June peak.

CREDA requested that power impacts be minimized.

The Colorado Division of Wildlife indicated that rainbows have begun spawning which can continue till mid-May, so a peak after May 15 would be preferable. If a peak could occur between May 15 and June 1 it would be best because this would protect the spawning and would provide better conditions for survival of newly hatched rainbow trout. This timing would also benefit downstream native fish habitat. Peaks above 6,000 cfs would be excessive to support the sport fishery. Ramping rates, particularly when reducing flows, are crucial and if spills occur in June, ramping rates become critical for protection of newly hatched rainbow trout. Rates of 500 cfs per day (in several steps during the day) are suggested when ramping down from high peaks; rates of 250 cfs are suggested when river flows fall below 2,500 cfs.

The CDOW requested flows in the 600-900 cfs range October 7-10 for the annual inventory in the Gunnison Gorge. This year's inventory is important to determine effects of low flows during the Crystal inspection and of higher spring flows.

#### Other Reservoirs:

Crawford, Fruitgrowers, Paonia, Silver Jack, Taylor Park and Ridgway are expected to fill this

year under most probable conditions.

### Agency/Organization Activities and Discussion of Related Activities:

**Thanks Coll!**-Many attendees thanked Coll Stanton for his dedication, knowledge, technical skills, and honesty over the years....he will be missed but will enjoy retirement.

**Colorado Division of Wildlife** – Kokanee release from Roaring Judy Hatchery to Blue Mesa is scheduled for April 28<sup>th</sup>.

**Colorado Water Conservation Board** – May Board meeting will be in Glenwood Springs this year.

**Bureau of Land Management:** Anticipating a lot of interest in June flow conditions due to stonefly hatch. Has been doing willow/cottonwood planting in the Gunnison Gorge.

**Upper Gunnison Water Conservation District:** Working with Black Canyon water right resolution. Should be fairly high flows in Taylor River this year.

**Redlands Water and Power:** Has had trouble this spring with fine material plugging the fish screen. This is first year this has occurred and requires more frequent cleaning.

**Colorado State Engineer:** Leroux Creek gage is now operating year round.

**Tri-County:** Cow Creek gage installation completed and should be operating soon. Ridgway Reservoir contains 28,000 af and releases will increase. Reservoir will fill and, dependent on weather, should not spill.

Colorado Water Conservation District: Andy Mueller from Ouray County will be the new board president. District is working on Black Canyon water right mediations. In May the Salinity Control Forum will tour the Gunnison Basin and the Upper Colorado River Commission will meet in Glenwood Springs this year. Taylor Park operation meeting is scheduled for May 9<sup>th</sup>. Shoshone Power Plant should be back in operation in May. On May 12<sup>th</sup> there will be a "State of the Gunnison River" educational meeting in Delta.

**High Country Citizens/Sierra Club:** Working on Gunnison Basin Roundtable projections of non-consumptive water needs and on several water quality issues.

**Western Area Power:** With the high forecast, looking forward to interesting and exciting spring.

## **Aspinall Unit EIS:**

The EIS is being prepared to evaluate a range of alternatives to help meet endangered fish flow recommendations while continuing to meet Aspinall Unit purposes. Flow Recommendations

have been developed by the Recovery Program for endangered fish habitat downstream from Delta and generally call for higher spring flows. Two basic types of alternatives are being looked at: 1) using water in excess of that needed to fill Blue Mesa and meet other purposes to create a spring peak and 2) dependent on type of water year, attempt to meet specific flow targets at the Whitewater gage on the lower Gunnison. Reclamation is continuing to work with the Fish and Wildlife Service and other cooperators to refine alternatives. Considerable hydrology modeling has been completed in relation to the EIS and the Black Canyon water right mediation. Significant issues in the EIS relate to use of storage water for spring peaks, flood control, hydropower effects, effects on trout fishery and recreation, and resolution of Black Canyon reserved right. See: <a href="www.usbr.gov/uc/wcao/">www.usbr.gov/uc/wcao/</a>; for information---select "Aspinall Unit Operations EIS" under the "General" heading. Contact <a href="majorage-aspinalleis@uc.usbr.gov">aspinalleis@uc.usbr.gov</a> for information.

Several people at the operation meeting suggested having an EIS cooperators meeting soon to keep people informed and allowing opportunities for input.

Next Meeting: The next operation meeting is scheduled for 1:00 p.m., Thursday, August 21<sup>st</sup> at the Elk Creek Visitors Center on Blue Mesa.

# \*An asterisk indicates person attended the meeting

Daily Sentinel	Gary Harmon, Dave Buchanan*
Delta County Independent	•
Gunnison Country Times	
Montrose Daily PressJames	
Western Resource Advocates	
Club 20	
Colorado State University	
Environmental Defense Fund	
Gunnison Basin POWER	
Gunnison River Expeditions	* '
Helton & Williamsen, P.C.	
High Country Citizens Alliance/Sierra Club	
Steve Schechter, Shara Rutberg	•
Xcel Energy	Fred Eggleston
Matt Owens Fly Company	Matt Owens
Trout Unlimited Pat Oglesby*, Melinda Kassen, Dre	w Peternell John Trammell, Marshall Pendergrass*,
Matt Mayer*, Mac Cunningham*	
Western Colorado Congress	Randy See, Fred Wetlaufer
Argonne National Laboratory	John Hayse, Kirk Lagory
University of Montana	Jack Stanford
Ridgway Guide Service	Tim Peterson
Black Canyon Anglers	Richard
Dudginski*	
SelfCurt Treichel, Lyı	nn Johnson, George Sheldon, Bo Gates, Marlene
Zanatell, Jim Cochran, Jim Hokit, Richard Girvan*	
Colorado River Energy Distributors	Leslie James, Kent Holsinger*
Colorado River Water Conservation DistrictDave Kanzer*, Don Meyer, Jim Pokrandt*, Eric	
Kuhn, Bill Trampe, David Halford, Ray Tenney	
North Fork Water Conservancy District	Tom Alvey*
Tri County Water Mike Berry* Ion Spo	
	or, Kathleen Margetts, Richard Margetts (Project 7)
Redlands Water and Power Company	or, Kathleen Margetts, Richard Margetts (Project 7)Charles Mitisek*, Mike Gross
Redlands Water and Power Company Uncompangre Valley Water Users Association	or, Kathleen Margetts, Richard Margetts (Project 7)
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Redlands Water and Power Company Uncompangre Valley Water Users Association Upper Colorado River Commission Upper Gunnison R. Water Conservancy District Karen Shirley, Kathleen Curry, Mark Schumacher, Ty Spann City of Grand Junction Delta County Commissioners Delta County City of Delta Bullard, Jim Brown*, Wilma Ervin	cr, Kathleen Margetts, Richard Margetts (Project 7)
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Redlands Water and Power Company	or, Kathleen Margetts, Richard Margetts (Project 7)

Colorado Division of Water Resources Wayne Schieldt, Pat McDermott, Bob Hurford*, Richard Rozman		
Colorado Division of Wildlife Mike Japhet, Daniel Brauch, Sherman Hebein, Dan Kowalski*, David Graf,		
Ryan Swygman, Jay Skinner, Pat Martinez, Rick Anderson, Mar	**	
Colorado Water Conservation BoardRandy Seaho	olm, Ray Alvarado, Michelle Garrison*, Rick Brown,	
Steve Miller	I-1 Ch!-1.1.	
Wyoming State Engineers Office		
Congressman John Salazar		
Senator Wayne Allard		
Senator Ken Salazar		
Army Corps of Engineers		
Bureau of Land Management		
Rooster Barnhart*, Karen Tucker, Edd Rranz*, Forest Zerbe, Jes	sse Kirthorp, Peter Dennett, Julie Stotler,	
Ryan Mathis*		
Fish and Wildlife Service		
National Park Service Connie Rudd, Ken Stahlnecker*, Dave Roberts, Matt Malick, Mark Wondzell,		
Melissa Trammell, Michael Dale* Bill Johnson, DanGude Bockus, Bill Hansen, Chuck Pettee, Norm Henderson		
National Weather Service		
National Oceanic & Atmospheric Administration Andrea Ray, Robert Webb, Klaus Weickmann,		
Brad Udall		
U.S. Geological Survey Bob Jenkins, Gordo	on Mueller, Gerhard Kuhn, Bob Boulgarz,	
Joe Sullivan*, Steve Anders, Kirby Wynn, Trisha Solberg		
Western Area Power Administration Brad	d Warren, Nancy Scheid, Clayton Palmer,	
Jeff Ackerman* Kathy Crane, Ken Green, Annette Falvo, Ken Otto, Gary Burton; Margaret Matte, Dave		
Shelton, Jennifer Turnbull*, Chris Brown		
Bureau of ReclamationCarol DeAngelis*, Ed Warner*, Steve	McCall*, Coll Stanton*, Don Phillips*,	
Joe Austin, David Steinmark, Grant Watson, Ted Dunn, Dan Cra	abtree*, Chris Cutler, Terry Stroh, Jane	
Blair*, Max Striker, Paul Davidson*, Justyn Hock, Erik Knight*	, Nancy Coulam, Heather Patno, Dennis	
Kubly, Dave Harpman, Dawn Munger, and Rick Vinton		
Interior Solicitors Office	John Bezdek, Peter Fahmy	
Department of Justice	Dave Gehlert	
Colorado U/CADSWES		
University of Colorado		
Colorado Basin River Forecast Center	Brenda Alcorn* John Lhotak*	