

WCG-SMcCall  
ENV-4.00/PRJ-13.00

Subject: Wayne N. Aspinall Unit Operations

Dear Interested Party:

Enclosed is a summary of our August 24, 2006, meeting to coordinate Reclamation's operation of the Aspinall Unit. The meeting was held at the Elk Creek Visitors Center on Blue Mesa. Highlights of the operation meeting include:

- Runoff forecasts in 2006 declined from 105 percent in January to 94 percent in April, and actual runoff ended at 77 percent. Operations were conservative to maximize storage and Blue Mesa filled for the first time in seven years.
- The Gunnison Basin experienced its 7<sup>th</sup> straight year of average dry or lower inflows.
- Reclamation reservoirs in the Gunnison Basin filled this year with the exception of Taylor Park Reservoir.

If you have any suggestions on improving the operation meetings or summaries, please let us know. The next operation meeting will be on Thursday, January 18 at 1 p.m. at the Montrose Pavilion. If you have any questions, please call me at 970 248-0652.

Sincerely,

Dan Crabtree  
Water Resources Group Chief

Enclosure  
Distribution (see attached list)

bc: CC-100

John Bezdek, Office of Interior Solicitor, 1849 C St. NW, Mail Stop 6412, Washington, D.C. 20240  
UC-110, UC-400, UC-434, UC-436, UC-438, UC-600, UC-700, UC-720  
D-885100  
WCG-CDeAngelis, SMoyer, EWarner, BUilenberg, SMcCall, CStanton, EKnight, MSteves,  
DCrabtree, TStroh, JHock  
WCD-RSwickard, JSimons, PPage  
(each w/encl)

WBR:SMcCall:Aspinall summary August 24  
Identical letter sent – see attached list

Distribution List –  
August 24, 2006 Aspinall Operation Meeting

\*An asterisk indicates person attended the meeting

**Daily Sentinel**..... Gary Harmon, Dave Buchanan  
**Delta County Independent** .....Bob Borchardt  
**Gunnison Country Times** ..... Michelle Burkhart\*, Alan Wartes, Pat Daniel  
**Montrose Daily Press** ..... James Shea, Jason Monroe, Caitlin Switzer  
**Western Resource Advocates**..... Bart Miller  
**Club 20** .....Reeves Brown  
**Colorado State University** ..... Brett Johnson  
**Environmental Defense Fund** .....Jim Martin  
**Gunnison Basin POWER** ..... Ralph (Butch) Clark, Ramon Reed  
**Gunnison River Expeditions** ..... Hank Hotze  
**Helton & Williamsen, P.C.** ..... Duane Helton  
**High Country Citizens Alliance/Sierra Club** .....Steve Glazer\* Wendy McDermott,  
Steve Schechter, Shara Rutberg  
**Xcel Energy**..... Fred Eggleston  
**Matt Owens Fly Company** .....Matt Owens  
**Trout Unlimited** ..... Pat Oglesby, Melinda Kassen, Drew Peternell John Trammell  
**Western Colorado Congress** .....Randy See, Fred Wetlaufer  
**Argonne National Laboratory** ..... John Hayse, Kirk Lagory  
**University of Montana** ..... Jack Stanford  
**Ridgway Guide Service**.....Tim Peterson  
**Self** .....Curt Treichel\*, Lynn Johnson\*, George Sheldon, Bo Gates, Marlene  
Zanatell, Jim Cochran, Jim Hokit  
**Colorado River Energy Distributors**.....Leslie James, Kent Holsinger\*  
**Colorado River Water Conservation District** .....Dave Kanzer\*, Don Meyer, Eric Kuhn, Bill Trampe,  
David Halford, Ray Tenney  
**North Fork Water Conservancy District** ..... Tom Alvey  
**Tri County Water** .....Mike Berry, Ion Spor, Kathleen Margetts, Richard Margetts (Project 7)  
**Redlands Water and Power Company** ..... Gregg Strong, Mike Gross  
**Uncompahgre Valley Water Users Association**..... Marc Catlin  
**Upper Colorado River Commission** ..... Everett Sunderland  
**Upper Gunnison R. Water Conservancy District** ..... Greg Peterson, Karen Shirley, Kathleen Curry,  
Mark Schumacher, Tyler Martineau, Dennis Steckel, Jim Slattery, Ken Spann  
**City of Grand Junction**..... Terry Franklin, Greg Trainor  
**Delta County Commissioners**.....Jan McCracken, Wayne Wolf, Olen Lund  
**Delta County**.....Duane Freeman  
**City of Delta**.....Dales Hukle, Barry Bullard, Richard Sales, Wilma Ervin  
**Delta County Emergency Management**.....Rob Fiedler  
**Gunnison County Commissioners** ..... Hap Channell, Paula Swenson, Jim Starr  
**Colorado Department of Agriculture**..... Jim Miller  
**Colorado Division of Water Resources** ..... Wayne Schieldt\*, Frank Kugel, Richard Rozman  
**Colorado Division of Wildlife** Mike Japhet\*, Daniel Brauch\*, Sherman Hebein, Dan Kowalski\*, David Graf,  
Ryan Swygman, Jay Skinner, Pat Martinez, Rick Anderson, Mark Uppendahl  
**Colorado Water Conservation Board**.....Randy Seaholm\*, Ray Alvarado, Michelle Garrison\*, Rick Brown,  
Steve Miller  
**Wyoming State Engineers Office**..... John Shields

**Congressman John Salazar** .....Richard Baca  
**Senator Wayne Allard** .....Derek Wagner  
**Senator Ken Salazar** ..... Trudy Kareus, Mary Beth Buescher  
**Army Corps of Engineers**..... Ken Jacobson  
**Bureau of Land Management** ..... Dennis Murphy\*, Jim Ferguson, Roy Smith, Rooster Barnhart, Karen Tucker, John Arkins, Forest Zerbe, Jesse Kirthorp, Peter Dennett, Julie Stotler  
**Fish and Wildlife Service**..... Al Pfister, Chuck McAda, Patty Gelatt\*, George Smith  
**National Park Service** ..... Bill Wellman, Ken Stahlnecker, Matt Malick, Mark Wondzell\*, Melissa Trammell, Michael Dale\*, Bill Johnson, DanGude Bockus, Bill Hansen, Chuck Pettee, Norm Henderson  
**National Weather Service**..... Bill Reed, Brian Avery  
**National Oceanic & Atmospheric Administration**..... Andrea Ray, Robert Webb, Klaus Weickmann, Brad Udall  
**U.S. Geological Survey**.....Paul von Guerard, Bob Jenkins, Gordon Mueller, Gerhard Kuhn, Bob Boulgarz, Joe Sullivan\*  
**Western Area Power Administration** ..... Brad Warren, Nancy Scheid, Clayton Palmer, Jeff Ackerman\*, Kathy Crane, Ken Green, Annette Falvo, Ken Otto, Gary Burton; Margaret Matte, Dave Shelton, Heather Patno, Jennifer Turnbull\*, Chris Brown\*  
**Bureau of Reclamation**...Carol DeAngelis, Sue Moyer, Ed Warner\*, Steve McCall\*, Coll Stanton, Don Phillips\*, Dick Girvan, David Steinmark, Ted Dunn, Dan Crabtree\*, Chris Cutler, Terry Stroh, Jane Blair, Paul Davidson\*, Justyn Hock, Erik Knight\*, Nancy Coulam, Dennis Kubly, Dave Harpman, Dawn Munger, and Rick Vinton  
**Interior Solicitors Office**..... John Bezdek, Peter Fahmy  
**Department of Justice**.....Dave Gehlert  
**Colorado U/CADSWES**.....Edie Zagona, Satish Regonda,

Aspinall Unit Operation Coordination Meeting  
August 24, 2006

**Participation:** This meeting was held at the Elk Creek Marina on Blue Mesa Reservoir. Attendees are noted on the distribution list.

**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's 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 needs, 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 2006 operations; projected inflows to the reservoirs for the remainder of 2006; and potential operation plans under maximum, most, and minimum probable runoff forecasts.

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.

**Operations:**

**General:** 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-August 2006 Operations:**

Unit releases were around 500-700 cfs prior to the spring opening of the Gunnison Tunnel. Releases were dropped to around 300 cfs for a week in February to assist the BLM in crossing the river to plug an abandoned well near Austin. By April 20, releases were 1,700 cfs with the Gunnison Tunnel diverting 1,000 cfs. Releases increased to around 2,100 cfs in June, July, and

early August.

Based on January 1 snow conditions, the forecasted runoff into Blue Mesa was approximately 105 percent (765,000 af); but by May 1<sup>st</sup> this had dropped to 565,000 af or 78 percent of the 1971-2000 average, and actual runoff ended at 551,000 or 77 percent of the average. Inflow was considered “average dry”, making 2006 the 7<sup>th</sup> year in a row that inflow has been average dry or lower.

Reservoir releases were conservative, despite the optimistic January forecast, to improve the chances of filling Blue Mesa. Blue Mesa filled in mid June for the first time in 7 years (Blue Mesa has filled in 14 of the last 36 years). Inflow to Blue Mesa peaked in May, earlier than average.

Flows through the Black Canyon were around 700 cfs in the spring and 1200 through the summer. Flows were reduced to 600 cfs for three days in July to facilitate a National Park Service vegetation/sediment study.

Reclamation reservoirs in the Gunnison Basin filled this year with the exception of Taylor Park Reservoir.

Releases from Crystal are anticipated to begin decreasing in September and will be in the 600-900 cfs range this winter. Blue Mesa should reach the icing target of 7490 feet near the end of December.

Input was requested from those in attendance concerning operations:

- The Colorado Division of Wildlife requested flows in the 600-900 cfs range (600-750 cfs would be optimum) during the last week of September to facilitate fishery inventories in the Gunnison Gorge. Work will be conducted from September 26 till noon September 29. Jeff Ackerman indicated that flows higher in the range would help power operations and that he could live with 800 cfs Gunnison Gorge flows if Gunnison Tunnel diversions were still high. He is concerned that there may be a base flow test at Glen Canyon sometime in that period which could increase the need for Aspinall Unit power resources.

Jeff also suggested that in future years it would be helpful if CDOW inventories were pushed back to the first week of October because power needs drop off then normally. He also mentioned that doing flow related research on weekends is helpful because power needs are generally lower; this has become more of a concern in recent years because energy costs have increased.

Steve Glazer asked if there was concern with CDOW inventories causing mortality to fish. CDOW indicated that, with present equipment and techniques, mortality is very low.

- Questions were raised about why the Gunnison Tunnel is operated periodically in the winter. It was explained that there is an Uncompahgre Project/Ridgway Reservoir

exchange that allows using Gunnison River water to fill Fairview Reservoir, just off the South Canal. Fairview is the main storage reservoir for Uncompahgre Valley domestic supplies. The Tunnel is opened to 50-100 cfs periodically to fill Fairview. If Black Canyon flows are low at the time, Crystal releases are increased by a corresponding amount to prevent low canyon flows. If Black Canyon flows are around 500 cfs or higher, no adjustments are made. Tunnel use to fill Fairview has increased in recent years for two reasons: a growing population in the Uncompahgre Valley and an operation plan to operate Fairview in a smaller elevation range to improve water quality.

### **National Park Study:**

Flows were reduced to 600 cfs for three days in July for research in the Black Canyon of the Gunnison National Park. Mark Wondzell expressed appreciation to agencies for helping coordinate this work and explained that 134 vegetation/sediment plots were established at 300 cfs in 1990 and are resurveyed every 5 years. Data is used for evaluating relationships between flows and vegetation/sediment in the Park and will provide data for the Aspinall operations EIS. When the data is analyzed, Mark will present results at a future operations meeting. The study was originally to take place during the work week but was moved to the weekend to accommodate power demands. Jeff Ackerman from WAPA indicated that power impacts from the study were minimal because the work was conducted over a weekend. Moving the study to the weekend yielded a net savings to power of over \$375,000.

### **Energy Management and Marketing:**

Jeff Ackerman gave a presentation on hydropower. Jeff works for WAPA in the CRSP Energy Management and Marketing Office which is involved in CRSP power management along with other power resources in the region. The office, located in Montrose, schedules and delivers firm energy and capacity and, as needed, purchases energy to support firm obligations or sells surplus energy.

Energy is sold in 6 western states and the recent drought conditions have caused problems in meeting firm energy contract obligations. Jeff explained the process on scheduling power and it was apparent that this requires considerable planning, coordination and balancing on a constant basis.

In terms of CRSP resources, Glen Canyon represents about 80 percent of the energy resource and Aspinall around 12-15 percent. With recent restrictions at Glen Canyon and Flaming Gorge, the importance of the Aspinall Unit for ramping and load following and for meeting emergency situations in the power system has increased significantly, and Morrow Point and Blue Mesa peaking operations are critical to energy management.

At the Aspinall Unit, Blue Mesa and Morrow Point powerplants are operated on a peaking basis, and Crystal re-regulates releases. When Crystal releases are low, flexibility in Morrow Point peaking capability is reduced. Crystal Reservoir fluctuation criteria for landslides also reduce the flexibility. When Crystal is spilling due to high inflow to the entire Unit and powerplants are generating at high levels, Morrow Point/Blue Mesa peaking is restricted, but this is not a

significant problem because energy allocations are also elevated. If Crystal spills are due more to high inflow from the Cimarron, then reducing Morrow Point peaking can impact power operations. A copy of Jeff's presentation can be found at: [www.usbr.gov/uc/wcao/](http://www.usbr.gov/uc/wcao/); for information---select "Aspinall Unit Operations EIS" under the "General" heading.

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

**National Park Service** – The Black Canyon water right court case has completed oral arguments and a decision is expected soon.

**Reclamation** – No unusual maintenance is planned for coming months.

**Colorado Division of Wildlife** – This spring 2.7 million kokanee were released from the Roaring Judy Hatchery to Blue Mesa via the Gunnison River. Adult kokanee are starting to migrate toward the Roaring Judy Hatchery. It is hoped to reduce migration barriers later this fall by modifying a diversion near Gunnison. CDOW assisted in lower Gunnison fishery inventories this summer. Native fish such as roundtail chubs and bluehead and flannelmouth suckers appear to be doing well, and non-native fish are relatively uncommon compared to many other rivers.

**Fish and Wildlife Service** – Eight pikeminnows and four razorback suckers have used the fish ladder at the Redlands Diversion so far this summer and the Redlands fish screen is operating. Approximately 1400 razorbacks were stocked near Delta this summer and there will be additional stocking. Surveys this summer showed good populations of native fish, as mentioned above, and not many non-native fish. Only low numbers of endangered pikeminnow and razorback were inventoried.

**State Engineer:** Water conditions for 2006 have been good; there has been no call on the Gunnison. There was a call on the Uncompahgre that affected post-1940 water rights, but it was cancelled after 24 hours as good rains increased supplies.

**Colorado Water Conservation Board:** The discussion on power was very helpful and helps people understand the relationship of the Aspinall Unit to energy management.

**High Country Citizens Alliance:** Concerned with the slow progress of the Aspinall operations EIS.

**Bureau of Land Management:** Last winter's well plugging on the river near Austin appears to be working. This summer's flows have been good for recreation. No problems during the 600 cfs vegetation surveys.

### **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. Progress is being made on developing hydrology models to analyze the alternatives. See: [www.usbr.gov/uc/wcao/](http://www.usbr.gov/uc/wcao/) ; for information---select “Aspinall Unit Operations EIS” under the “General” heading.

Cooperating agency meetings are open to the public to attend and observe. Opportunity for public questions and comments is provided at the meetings. The next meetings will be on November 7<sup>th</sup> at 10 am, in Reclamation’s Grand Junction office---contact [aspinalleis@uc.usbr.gov](mailto:aspinalleis@uc.usbr.gov) for information.

**Next Meeting: The next operation meeting is scheduled for 1:00 p.m., Thursday, January 18<sup>th</sup> at the Montrose Pavilion.**