

WCG-SMcCall
ENV-4.00/PRJ-13.00

Subject: Wayne N. Aspinall Unit Operations

Dear Interested Party:

Enclosed is a summary of our January 15, 2003, meeting to coordinate Reclamation's operation of the Aspinall Unit. The meeting was held in Montrose.

Highlights of the operation meeting include:

BProjected inflow as of January 1 to the Aspinall Unit for the April through July period is 570,000 acre-feet or 80 percent of the recent average. Actual numbers for 2002 were 156,000 acre-feet or 22 percent of normal, although January 2002 forecasts predicted 69 percent; this declined consistently through the year.

BBlue Mesa's live content on January 15 was 285,888 acre-feet; this compares to around 525,000 acre-feet on January 1, 2002. Thus, while inflow predictions are higher than last year, storage is significantly less. Releases from the Aspinall Unit were reduced to 250 cfs after the irrigation season, and this is allowing a small amount of storage to occur. Reservoir content has increased 23,000 acre-feet over the winter so far.

BReleases from Crystal Dam were dictated by downstream water rights and the agreement to provide flows below the Redlands Diversion Dam (200 cfs in June, 250 in July and August, and 100 in September). Black Canyon flows ranged from around 700 cfs in mid-August to the 250 cfs winter flow.

BUnder the January 1st most probable forecast, Blue Mesa should reach 620,000 acre-feet after the runoff; this is 20-25 feet below a full reservoir. Black Canyon flows should increase in the spring and be in the 700-800 cfs range for the summer. This is very preliminary information and will change if the forecast changes, or possibly if new arrangements are made to address the senior downstream Redland's water right and demands downstream from the Redlands Diversion.

BMorrow Point trash rack cleaning and drawdown began in August; the work was completed

successfully and water quality downstream was protected.

If you have any suggestions on improving the operation meetings or the summaries of the meetings, please let us know. Because of the continuing dry conditions, an interim operation meeting is scheduled for March. We are tentatively looking at **Thursday March 27th**—location to be announced. If you have any questions, please call me at (970) 248-0654.

Sincerely,

Ed Warner
Resources Division Manager

Enclosure

Distribution (see attached list)

bc: Curecanti Field Division, Attention: CCI-100 1820 South Rio Grande Avenue,
Montrose CO 81401 (w/encl)

John Bezdek, Office of Interior Solicitor, 1849 C St. NW, Mail Stop 6412,
Washington, D.C. 20240 (w/encl)

Regional Director, Salt Lake City UT, Attention: UC-400, UC-434, UC-438, UC-600, UC-
700, UC-724, UC-725, (ea w/encl)

Director, Technical Service Center, Denver CO, Attention: D-8510 (w/encl)

WCG-CDeAngelis, SMoyer, EWarner, BUilenberg, SMcCall, JOzga, CStanton, EKnight,
MSteves, DCrabtree, JHock (ea w/encl)

WCS-RSwickard, JSimons, PPage (ea w/encl)

WBR:SMcCall:rb:1/21/03:970 248-0638:Aspinall Jan 27 summary

Distribution List –January 15, 2003 Aspinall Operation Meeting

*An asterisk indicates person attended the meeting

Argonne National Laboratory..... John Hayse, Kirk Lagory
City of Grand Junction Terry Franklin, Greg Trainor
Club 20..... Reeves Brown
Colorado State University Brett Johnson
Daily Sentinel..... Gary Harmon, Dave Buchanan*
Delta County Independent..... Bob Borchardt*
Environmental Defense Fund..... Jim Martin
Gunnison Basin POWER..... Ralph (Butch) Clark*, Ramon Reed
Gunnison Country Times..... Alan Wartes*, Pat Daniel
Gunnison River Expeditions..... Hank Hotze
Helton & Williamsen, P.C. Duane Helton
High Country Citizens Alliance/Sierra Club..... Steve Glazer*, Shara Rutberg
Matt Owens Fly Company..... Matt Owens
Montrose Daily Press..... Caitlin Switzer*
Trout Unlimited..... Pat Oglesby*, Melinda Kassen, Drew Peternell*
Western Colorado Congress Fred Wetlauffer
University of Montana Jack Stanford
Co. River Water Conservation District Dave Kanzer*, Eric Kuhn,* Bill Trampe, David Halford,
Ray Tenney
Colorado River Energy Distributors..... Cliff
Barrett
North Fork Water Conservancy District Tom Alvey
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 Kathleen Klein, Mark Schumacher,
Tyler Martineau, Dennis Steckel*, Jim Slattery, Ken Spann
Delta County Commissioners Jan McCracken, Wayne Wolf, Ted Hayden
Delta County..... Duane
Freeman
City of Delta..... Richard Sales, Wilma
Ervin
Gunnison County Commissioners..... Fred Field, Perry Anderson, Jim Starr
Colorado Department of Agriculture..... Jim Miller
Colorado Division of Water Resources..... Wayne Schieldt*, Frank Kugel*, Richard Rozman
Colorado Division of Wildlife Daniel Brauch*, Sherman Hebein, David Graf, Ryan Swygman*, Pat Martinez,
Rick Anderson
Colorado Water Conservation Board..... Randy Seaholm; Ray Alvarado*, Michelle Garrison*
Wyoming State Engineers Office John Shields
Congressman Scott McInnis David Ludlan*, Kelly Watson, Ann Martinez, Joy Peck
Senator Wayne Allard Beth Washburn, Derek Wagner*
Senator Ben Nighthorse Campbell George Rossman*
Army Corps of Engineers..... Ken Jacobson
Bureau of Land Management Allan Belt, Dennis Murphy*, Jim Ferguson, Carl Bauer, Roy Smith,
Rooster Barnhart*, Karen Tucker

Fish and Wildlife Service Rick Krueger, Al Pfister, Chuck McAda, Patty Gelatt* Terry Ireland
 George Smith
National Park ServiceSheridan Steele, Myron Chase, Ken Stahlnecker, Mark Wondzell,
 Michael Dale*, Bill Johnson, DanGude Bockus, Bill Hansen, Chuck Pettee
National Weather ServiceBill Reed, Brian Avery
National Oceanic & Atmospheric Administration..... Andrea Ray, Robert Webb*, Klaus Weickmann
U.S. Geological Survey.....Paul von Guerard*, Bob Jenkins, Gordon Mueller
Land and Water Fund..... Bart Miller*
Western Area Power AdministrationShane Collins, Nancy Scheid*, Clayton Palmer
 Jeff Ackerman, Kathy Crane, Ken Green, Annette Falvo, Ken Otto, Gary Burton; Margaret Matte
Bureau of Reclamation...Carol DeAngelis, Sue Moyer. Ed Warner*, Steve McCall*, Coll Stanton*, John
 Ozga, Gary McDermott, Don Phillips*, Dick Girvan*, David Steinmark*, Ted Dunn*, Dan Crabtree*, Chris
 Cutler, Terry Stroh*, Arlo Allen, Jane Blair, Paul Davidson*, Tom Chart, Justyn Hock*, Erik Knight*
Interior Solicitors Office..... John Bezdek, Peter
 Fahmy
Department of Justice.....Dave
 Gehlert
Xcel Energy..... Fred
 Eggleston*
Tri County WaterMike Berry*, Kathleen
 Margetts*
SelfGeorge Sheldon, Marlene Zanatell

Aspinall Unit Operation Coordination Meeting

January 15, 2003

Participation: This meeting was held at the Holiday Inn Express in Montrose. Attendees are noted on the distribution list.

Purpose of Meeting: The purpose of these 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 an overall 24-month study for operation of Reclamation projects in the Upper Colorado River Basin, which includes 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, flood control needs, existing water rights, minimum instream flows, target elevations for reservoirs, flow needs for endangered fish and other resources, recreation, hydropower needs 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 August-January operations; projected inflows to the reservoirs; and potential operation plans under maximum, most, and minimum probable water supply forecasts.

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

August -January Operations: Aspinall Unit storage has been very important in this period, as the basin dealt with the 2002 unprecedented low spring runoff. Senior water rights and the 2002 agreement related to the Redlands Fish Ladder contract largely controlled summer operations. The Redlands agreement called for the Redlands Diversion to limit their call to 600 cfs rather than 750 cfs; the Colorado River Water Conservancy District compensated Redlands for lost power revenues; Xcel Energy cooperated with rate adjustments; the Fish and Wildlife Service agreed to reduce endangered fish flows downstream from the Redlands; and the Aspinall Unit maintained the 600 cfs for the Redlands and also endangered fish flows downstream (200 cfs in June, 250 in July and August, and 100 in September). The agreement worked reasonably well through the summer, although water travel time

from Crystal and predicting intervening flow below the Gunnison Tunnel made meeting flows somewhat difficult. Flows through the Black Canyon ranged from around 750 in mid August, to 250 cfs in winter months.

Under a new agreement, Redlands has not operated their power plant this winter and therefore they have not placed a call on the river. This has allowed some storage in upstream reservoirs. Reclamation, in consultation with the CWCB, CDOW, FWS, and others; decided to reduce Black Canyon flows to 250 cfs this winter. Reclamation's policy is to keep minimum flows of at least 300 cfs in the Black Canyon; however, there are provisions to lower this under severe drought conditions.

In the August to January period, Black Canyon flows ranged from around 750 cfs in August to 250 cfs in the winter. Blue Mesa storage hit a low of 262,814 acre-feet (elevation 7,440 or 79 feet below full) on October 22. On January 15, content was 285,888 af with an elevation of 7,445.

January-April 2003 Operation: The January 1 inflow forecast (April-July runoff) to Blue Mesa is 570,000 af or 80 percent of average (average of last 30 years) under most probable conditions. Snow pack is 88 percent. This is considered an "average dry year." Under most probable conditions, Blue Mesa live content will reach 620,000 af which is 20-25 feet below full reservoir elevation. These numbers are very preliminary and can change significantly before spring. For example in 2002, Blue Mesa inflows were predicted in January to be 69 percent of normal; but actual inflows were 22 percent.

Black Canyon flows are predicted to begin increasing from around 250 cfs in May to 700-800 cfs in June, July, and August and falling to 700 cfs in September and October.

The above numbers are calculated "without a Redlands call and with average Gunnison Tunnel demands"; if a call occurs or tunnel demands are greater, storage in Blue Mesa will be reduced and April-May Black Canyon flows increased. The Colorado River Water Conservation District, Redlands Water and Power, and others are studying potential solutions to a Redlands call.

Aspinall Unit Maintenance Work: Don Phillips thanked Division of Wildlife, WAPA, and Trout Unlimited for their assistance in the Morrow Point trash rack cleaning project and water quality monitoring. The reservoir was lowered 32 feet and divers cleaned the trash racks between September 13 and 19. Water quality was protected throughout the operation, and the efficiency of Morrow Point power production will increase.

Because of the low releases, Crystal has not been generating power since October. In October 2003, the Crystal generators will be rewound; this will take 3 months and will not affect flows.

Various security measures are being implemented around the Aspinall Unit, including buoy lines to restrict boating near dams and new road barriers to use under certain circumstances. Public roads (highways) are not affected.

Agency/Organization Activities and Discussion of Related Activities:

NOAA – The Climate Diagnostic Center of NOAA gave a presentation on climate. Robin Webb reported on tree ring analysis in Colorado and correlation with river flows. Working specifically on the Blue River drainage, a fairly good correlation between tree ring size and river flows was found. Looking back at tree ring data to the 1500's, it appears that large extended droughts have periodically occurred. For example, years as dry as 2002 have occurred at least in 8 years since the 1500's. Back to back years of drought are not uncommon.

This year is an El Nino year with surface waters in the Pacific warmer than normal; the warming center is a little further west than for a normal El Nino, so we do not have "classic" El Nino conditions (see www.cpc.ncep.noaa.gov/products/predictions). Forecasts for the remainder of the year are not clear; there are some indications of increased precipitation in the March-May period and some indications of drought persisting.

Land and Water Fund – Bart Miller gave a presentation on the recently released report "Gunnison Basin Water: No Panacea for the Front Range." The LWF report concludes that water in the Gunnison Basin is fully utilized; marketable yield from Blue Mesa is a myth; and the Front Range has economically and environmentally better alternatives for future water supplies. The report will be on the web January 22— www.lawfund.org.

Front Range water demands will increase significantly in the next 45 years as population is projected to increase to 3 million. The Gunnison Basin is one area viewed as a water supply for the Front Range.

Fish and Wildlife Service – The flow recommendation report will be revised this winter—peak flow recommendations may be reduced, but high flow durations may increase. The report will then be reviewed by the Biology Committee of the Upper Colorado River Recovery Program.

Razorback sucker larvae were collected in the Gunnison this year between Delta and the Redlands Diversion. This indicates that stocked fish have successfully reproduced. The Redlands fish ladder was used by 7 pikeminnow and 1 razorback this year; one of the pikeminnow was a 16-pound fish.

A gravel pit downstream from Whitewater will be connected to the river this year; the purpose is to increase backwater-type habitat for razorback sucker larva.

Colorado Division of Wildlife – The kokanee salmon run from Blue Mesa to the Roaring Judy Hatchery had serious problems this fall; however, CDOW was able to collect 7¼ million eggs which represent a successful run. With the low flows, diversions were an obstacle to the fish moving upstream and "bucket brigades" were organized to get the fish to the hatchery.

Colorado River Water Conservation District – Appreciates people's proactive work in what may be another very dry year. Will be looking into ideas to help protect against calls while protecting senior

rights.

Sierra Club/High Country Citizens – High Country Citizens are working on a report—Blue Print for Sustainability in Gunnison Basin.

Colorado Water Conservation Board - A consultant has been hired to update the Gunnison Model thru 2000.

U.S. Geological Survey- Is working on a cooperative study of water gains/losses between the Whitewater gage and the Redlands Diversion. Last summer this was a significant “losing” reach of river; and additional information will help with operations, particularly in dry years.

Bureau of Land Management – On March 7 the public review of the EIS containing the Gunnison Gorge River Management Plan will begin.

Western Area Power Administration – Power purchases have increased in response to lower water releases during the drought.

National Park Service – Department of Justice working on settlement language for reserved right. Most of activity is at the Washington level.

Gunnison Basin Power – Will be working on drought and efficiency ideas

State Engineer – Anxiously awaiting an improvement in runoff conditions.

Redlands – Power plant has been off since November 1. Will start water deliveries April 14 and power plant operations on April 1.

Upper Gunnison Water Conservancy – The District is very concerned with water supplies this year.

Uncompahgre Valley Water Users Association – Concerned with irrigation season water supplies and will be working on plans to maximize efficiency in use of supplies.

Next Meeting: **An interim operation meeting to address drought operations is tentatively set for Thursday, March 27th—time and location to be announced** (March 25th was discussed at the meeting, but conflicts with other meetings led us to propose the 27th).