

GJ-150

Subject: Wayne N. Aspinall Unit Operations (Reservoir Operations, Fish and
Wildlife)

Dear Interested Party:

Enclosed for your information is a summary of the Aspinall Unit operations meeting held on January 28, in Grand Junction. Handouts from the meeting are enclosed only for those not in attendance. The next operations meeting will be held in this office at 12:30 p.m. on April 21, 1994. The August meeting is scheduled for 12:30 p.m. at this office on August 18, 1994.

If you have any questions on this information, please contact Steve McCall at (303) 248-0638.

Sincerely,

Brent Uilenberg
Acting Projects Manager

Enclosure

Aspinall Unit Operations Meeting
January 28, 1994

The subject meeting was held in Grand Junction, Colorado. An attendance list is attached. The purpose of the meeting was to review initial inflow forecasts and adjust Aspinall Unit operation plans with input from all for the January-July, 1994 period. The results of the meeting will be incorporated into the overall Colorado River Storage Project 24-Month Plan.

Brad Vickers reviewed 1993 operations. The high runoff was considered a "2 in 10 year" event. Spills at Crystal Reservoir resulted primarily from side inflow to Morrow Point and Crystal rather than from plans to cause a high peak flow downstream. In general, actual operations for the Unit coincided closely with planned operations. Peak flows in the Black Canyon were approximately 5,200 cfs on May 22. Preliminary data shows peaks reached 19,000 and 21,000 cfs at Delta and Whitewater, respectively. Unregulated inflow to Blue Mesa was 170 percent of normal in May and 136 percent for the calendar year. End of year reservoir elevation at Blue Mesa was within 1 foot of the target of 7495 feet. Moderate flooding occurred along the Gunnison River and North Fork. Drawdowns at Morrow Point affected use of the tour boat for a short period in the fall. Kokanee salmon loss (entrainment) was observed from Blue Mesa in the spring.

Preliminary 1993 flow data for the three stations on the Gunnison River downstream from the Unit were handed out. Handouts were provided on daily flow fluctuations; it was reported that a 15 percent daily change was exceeded four times. Examples of high fluctuations for Crystal Dam releases included May 22--3929 to 5971 cfs; May 21--3922 to 4946 cfs; June 18--4283 to 5420 cfs; and September 9--1590 to 2438 cfs. The May events were caused by the need to cut back releases to alleviate downstream flooding; the September event resulted from changes in bypass and power releases. Jim Schumacher discussed installation of Accusonic flowmeters at Crystal Dam which should provide very accurate data on releases. Discussions are beginning to see if similar flowmeters can be installed in the Gunnison Tunnel.

Agencies provided brief reports of Gunnison River activities: The Bureau of Land Management (BLM) was not present but reported earlier that USGS channel morphology studies in the Gunnison Gorge were complete and several publications were available and that the BLM did not have any test flow requests. The Colorado Division of Wildlife (CDOW) reported that rainbow trout recruitment was below the desired level for the 5th year in a row in the Gunnison Gorge while brown trout recruitment was above. The fishery in the Gunnison Gorge remains Gold Medal quality in terms of biomass and fish size. Kokanee salmon loss through the Blue Mesa powerplant was documented in June and July. CDOW recommended minimizing daily flow fluctuations, avoiding extreme flow peaks during rainbow fry emergence (June 1-June 30), and meeting ramping recommendations. The Blue Mesa fishery is enhanced by higher reservoir levels. The Colorado River Water Conservation District reported that work is continuing on the Gunnison River model with some delays in testing of the model. The Colorado Water Conservation Board is also participating in the model development and is reviewing the economic studies of the Aspinall Unit (Economic Justification Report) to determine implications on water uses and users.

The Fish and Wildlife Service (FWS) will continue endangered fish studies downstream from the North Fork confluence in 1994. A new study on aquatic insects will begin. One significant observation in 1993 was the movement of

tagged fish to possible spawning areas (between Escalante and Dominguez Creeks). The National Park Service reported that two studies will be conducted in the Monument this year: the National Biological Survey will re-sample vegetation plots established four years ago and the USGS will look at geomorphology, sediment sources, and sediment movement. At Blue Mesa, creel census work with CDOW will continue and NPS will work with Reclamation on limnology and entrainment studies. The NPS also briefly described ideas on settling the Monument's reserved water right in a non-adversarial manner. Reclamation reported on studies on Blue Mesa on limnology and entrainment. Work is continuing on fish passage at the Redlands Diversion Dam (design, operations contract activities).

The Uncompahgre Valley Water Users Association outlined some minor tunnel problems that occurred in December; flows were lowered for about 12 hours to fix the gate. Tunnel operations will begin around April 1 to 10 and diversions will be made in 200 cfs increments. Upper Gunnison Water Conservancy District raised questions about the timing of plans to provide legal protection of releases past the Redlands Diversion. Legal protection is not planned for 1994 according to FWS. Upper Gunnison requested that Reclamation and FWS keep people informed on the timing and amount of protected flows below the Redlands so that plans can be made to protect Gunnison Basin water users. Agencies agreed to keep Upper Gunnison updated. The FWS further reviewed that through Biological Opinions on the Dolores and Dallas Creek Projects there is 148,000 acre-feet of storage for endangered fish in Blue Mesa. The FWS has not determined how this water will be used. When the Redlands fish passage is installed and monitored, flow needs will be better quantified. Western Area Power Administration (WAPA) commented that Flaming Gorge storage was to mitigate Central Utah Project depletions in a similar manner, but when the biological opinion on Flaming Gorge was completed, this depletion of water was no longer considered. WAPA also reported that electrical operations have gone well over the last 6-month period, and that they are working with a new and promising "waterways" model to assist in planning power operations.

Test flows for 1994 were discussed. CDOW requested flows in the Gunnison Gorge of 600 cfs between September 26 and 29. Flows should be at 600 by 8:00 am on September 26. The flows are needed for fishery sampling and no problems were seen with this request. The NPS would like to see one week of flows in the 300-400 cfs range during the last two weeks of July (timing important for plant growth stage) for vegetation sampling. CDOW pointed out that the rainbow trout production would be better protected if these flows occurred in August. No decisions were made on this request; NPS will see if work could be done at higher flows and what effect there would be if work was done in August. This request will be further reviewed in the April meeting.

Plans for the 1994 spring runoff were discussed. Inflow (most probable) to the Aspinall Unit is estimated at 83 percent on January 1. Operation plans presented for the most probable runoff provided for a spring peak. Blue Mesa would not fill--would be approximately 12 vertical feet down (120,000 acre-feet). Estimated average flows projected through the Monument were discussed: Jan-976 cfs, Feb-576 cfs, Mar-602 cfs, Apr-622 cfs, May-618 cfs, June-622 cfs, and July-829 cfs. These projections were discussed and two changes were agreed to: flows will be reduced to 500 cfs the first week of February to decrease loss of storage in Blue Mesa, and the spring peak will be designed as much as possible to occur in May as opposed to June to benefit endangered fish while protecting rainbow trout recruitment. Brad Vickers will incorporate these suggestions into the 24-month Plan and the plans will be refined at the April meeting. Also CDOW requested that flows not drop after rainbow trout

spawn in April.

Flows below the Redlands Diversion Dam were discussed. Reclamation and FWS will keep track of these as Crystal releases are reduced to 500 cfs. Reclamation is currently completing installation of a gauge in this reach. Also CWCB suggested developing a matrix of flow needs (for fish, power, recreation, etc on a monthly basis). Brad Vickers will take lead in assembling this prior to the April meeting. Information from all agencies should be sent to him or Reclamation in Grand Junction.

The April meeting was set for 12:30 on April 21 in Grand Junction.

Attendance List
Aspinall Unit Operations Meeting - January 28, 1993

Upper Gunnison River Water Conservancy District
Tyler Martineau 303-641-6065

Uncompahgre Valley Water Users Association
Jim Hokit 303-249-3813

Colorado River Water Conservation District
Mike Gross 303-945-8522

Colorado State Engineer
Keith Kepler 303-249-6622

Colorado Water Conservation Board
Randy Seaholm 303-866-3441

Colorado Division of Wildlife
Sherman Hebein 303-641-0088
Rick Anderson 303-484-2836

Upper Colorado River Commission
Clint Stevens 802-531-1150

Western Area Power Administration
Clayton Palmer 801-524-3522
Chris Brown 303-240-6209

Bureau of Reclamation
Brad Vickers 801-524-5576
Jim Schumacher 303-240-6300
Lorrie West 303-248-0635
Steve McCall 303-248-0638
Coll Stanton 303-248-0660
Ed Warner 303-248-0654
Dave Mutz 303-248-0655
John Ozga 303-248-0640

Fish and Wildlife Service
Keith Rose 303-243-2779
Bob Burdick 303-245-9319
George Smith 303-236-5322
Robert Green 303-236-5322
Chuck McAda 303-243-9319

National Park Service
John Welch 303-249-7036
John Chapman 303-641-2337
Chuck Pettee 303-225-3535
Myron Chase 303-249-7036
Owen Williams 303-225-3505
Rick Harris 303-641-2337
Paul Zaenger 303-249-7036
Janet Wise 303-987-6678
Lynn Cudlip 303-641-2337

