

Scoping Report-

Aspinall Unit Operations EIS

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Gunnison River near Bridgeport Colorado.

Bureau of Reclamation
Western Colorado Area Office
2764 Compass Drive
Suite 106
Grand Junction CO 81506
(aspinalleis@uc.usbr.gov)

1. Introduction and Background

Reclamation is preparing the Aspinall Unit Operations Environmental Impact Statement (EIS) to describe potential effects of operation changes for the Wayne N. Aspinall Unit that are related to compliance with the Endangered Species Act (ESA). Public involvement will be an important activity in the development of the EIS. The first phase of the public involvement process is “scoping” and is designed to help determine issues and alternatives to be addressed in the EIS. Scoping is defined as “an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to the proposed action.” This report summarizes the findings of the scoping period.

A draft and final EIS will be prepared to provide decision makers appropriate information and to inform the public of the proposed action, reasonable alternatives, and the impacts of the alternatives. In addition to scoping of significant issues and alternatives, key activities will include development of alternatives that support the proposed action and need, analysis of issues in the EIS, selection of a recommended plan, and preparation of a Record of Decision. Periodic meetings and mailings will be used to keep the public updated on the EIS.

The Record of Decision will be the final product prepared under this EIS. It will officially present the Department of the Interior’s position on operating guidance for the Unit.

Reclamation will define the baseline for species considered and prepare a biological assessment on the preferred alternative in compliance with Section 7 of the ESA. The Section 7 consultation will cover the effect of the proposed operating criteria and guidance for the Unit compared to the baseline conditions. The Fish and Wildlife Service will prepare a biological opinion on the proposed action.

The Aspinall Unit (Unit) -- which includes Blue Mesa, Morrow Point, and Crystal Dams, Powerplants, Reservoirs and associated facilities -- is located in western Colorado. The Unit was authorized by the Colorado River Storage Project Act of 1956 along with Glen Canyon, Flaming Gorge, and the Navajo Unit. The authorization calls for meeting a variety of purposes including:

- regulating the flow of the Colorado River;
- storing water for beneficial consumptive use;
- providing for the reclamation of arid and semi-arid land;
- providing for the generation of hydroelectric power;
- providing for fish and wildlife enhancement and public recreation;
- providing for the control of floods; and
- allowing the Upper Basin states to develop Colorado River Compact apportioned waters.

Flow Recommendations have been developed through the Upper Colorado River Endangered Fish Recovery Program (Recovery Program). The recommendations describe the annual and seasonal patterns of flow in the lower Gunnison River, and in the Colorado River downstream from their confluence, identified as needed to help recover endangered fish.

The initial definition of the proposed action is to: develop operating guidance to implement reservoir operation changes to avoid jeopardy to endangered species while maintaining the congressionally authorized purposes of the Unit.

The need for the proposed action is defined as follows: Guidance is needed to operate the Unit to avoid jeopardy to endangered fish species while complying with the Unit's authorized purposes. The need sets the overall focus of the EIS process and is the ultimate requirement that all alternatives must satisfy. The underlying need associated with the proposed action is based on legal obligations to maintain the authorized purposes of the Aspinall Unit as well as to comply with the ESA.

There are a group of purposes and desired goals that will be addressed in alternatives. The following purposes and/or goals of the proposed actions are recognized:

- Help the state of Colorado protect/use its compact entitlement
- Operate alternatives within State water law
- Satisfy as many needs as possible with same water releases
- Protect recreation at Unit reservoirs and in the Gunnison Gorge and Lower Gunnison River
- Protect tailwater and reservoir fisheries
- Provide needed hydropower flexibility
- Provide flood control
- Provide for public input and public information concerning operations of the Unit
- Assist the National Park Service in protecting resources of the Black Canyon of the Gunnison National Park (Black Canyon)
- Allow for adaptive management as new scientific data becomes available through monitoring of endangered fish responses

The degree to which alternatives meet identified purposes provides decision makers guidance in selecting alternatives for detailed study and ultimately for selection of a recommended plan.

Primary water storage at the Unit occurs in the uppermost and largest reservoir, Blue Mesa. Reclamation manages available water at the Unit within certain sideboards that include annual snowpack conditions, senior water rights, minimum downstream flow requirements, flood control, powerplant and outlet capacities, reservoir elevation goals, fishery management recommendations, dam safety considerations, and others. Certain sideboards can be considered mandates such as honoring senior water rights and flood control, while others such as reservoir elevation criteria to reduce landslides are given a high priority. To conserve water for later use, an operational goal is to fill Blue Mesa by

the end of July. Another operational goal is to draw Blue Mesa down to an elevation of 7,490 by December 31 to provide space for the next spring's runoff and to avoid ice damage upstream.

The five generators at the three dams of the Unit are capable of generating up to 283 megawatts of electricity. Morrow Point is the powerhouse of the Unit—its generators produce twice as much electricity as those at Blue Mesa. The Western Area Power Administration markets electricity generated by the Unit in conjunction with power from Glen Canyon and Flaming Gorge Dams and other plants of the Colorado River Storage Project as part of an integrated system that provides electricity to all states of the Colorado River Basin. The upstream powerplants of the Unit (Blue Mesa and Morrow Point) are critical in that they can be operated to provide peaking power (high flexibility in release rates). Crystal Reservoir then serves as a regulation reservoir to stabilize flows to the Gunnison River.

Public recreation use of Aspinall Unit lands and water are managed by the National Park Service as the Curecanti National Recreation Area. Blue Mesa Reservoir supports around 1,000,000 recreation visitor days per year. Fishing, boating, and camping are primary recreation uses. Fishing and rafting are important recreation activities downstream from the Unit.

Approximately 3 miles downstream from Crystal Dam, the Black Canyon of the Gunnison National Park begins and stretches 14 miles along the Gunnison River. Downstream from the National Park, lands are administered by the Bureau of Land Management as the Gunnison Gorge National Conservation Area.

At the United States Geological Survey gage at the head of the Black Canyon, historical average monthly flows have been 1,320 cfs and daily flow extremes have ranged from a few days of no flows to 19,000 cfs. Another important measurement point on the river is the Whitewater gage, eight miles upstream from the Colorado River confluence and approximately 90 miles downstream from Crystal Dam. At this point the drainage area is roughly 8,000 square miles; average monthly flows are approximately 2,600 cfs, and historic extremes have ranged from 106 cfs to over 35,000 cfs. The Aspinall Unit stores water during spring runoff and releases it when needed to meet downstream needs. Unit regulation since 1969 has reduced Gunnison River flows during spring runoff and increased flows during the non-runoff months. Even with regulation, however, flows vary with the amount of snowfall. For example, annual flows through the Black Canyon averaged 396 cfs during 1977 and 2,943 cfs during 1984.

Unit operations provide flood control benefits, both upstream and downstream of the reservoirs. One of the operational sideboards for high water years is to reduce flooding through the Delta area during spring runoff. Coordination of the Aspinall Unit and Taylor Park operations reduce upstream flooding. During the winter months, Blue Mesa Reservoir is drawn down approximately 30 feet from full (7490 feet elevation) to help reduce winter flooding caused by ice jams upstream from the reservoir near the city of Gunnison.

The Unit is located 50 miles upstream from habitat of the endangered fish species; however, operation of the Unit changed the flow regime of the lower Gunnison River and to a lesser extent the Colorado River within what is now critical habitat for endangered fish. The Gunnison River provides habitat for two of the endangered fish species, the Colorado pikeminnow and the razorback sucker. The 50 miles of river downstream from Delta, Colorado, are designated as critical habitat for these species. These and two additional endangered fish species—the humpback chub and bonytail chub—occur in the Colorado River downstream from the mouth of the Gunnison River. Operation of the Unit is important in determining the flow pattern of the Gunnison River, and to a lesser extent, the Colorado River.

Since 1988, the Upper Colorado River Endangered Fish Recovery Program has worked to address endangered fish issues in the upper Colorado River. The Recovery Program is a partnership created to recover the endangered Colorado pikeminnow, razorback sucker, humpback chub, and bonytail while allowing for continued and future water development. The Recovery Program was initiated in 1988 when a cooperative agreement was signed by the Governors of Colorado, Utah and Wyoming; the Secretary of the Interior; and the Administrator of the Western Area Power Administration. Recovery Program partners include the Colorado River Energy Distributors Association, Colorado Water Congress, Western Resources Advocates, State of Colorado, State of Utah, State of Wyoming, The Nature Conservancy, Reclamation, the Fish and Wildlife Service, National Park Service, Utah Water Users Association, Western Area Power Administration, and Wyoming Water Association.

The program has 5 elements: habitat management, which includes developing river flow recommendations; habitat development; nonnative species management; endangered fish propagation and stocking; and research and monitoring. The Aspinall Unit Operations EIS will assist in addressing the habitat management element. The operation of the Aspinall Unit is a key component of the Recovery Program for offsetting adverse effects of flow depletions from the Gunnison and Colorado rivers and allowing water development in the Upper Colorado River Basin. Other elements of the Recovery Program are ongoing or planned for the Gunnison River and include the fish passage at the Redlands Diversion Dam, a fish screen on the Redlands Canal, bottomland habitat development near Whitewater and Delta, stocking, and research and monitoring.

Flow Recommendations for the Gunnison River were prepared by the Fish and Wildlife Service and the Recovery Program using the results of research and monitoring activities funded as part of the Recovery Program and are presented in the July 2003 report titled “Flow Recommendations to Benefit Endangered Fishes in the Colorado and Gunnison River”. The goal of the recommendations is to provide the annual and seasonal patterns of flow in the Gunnison River and in the Colorado River downstream from their confluence to recover populations of the four endangered fishes. The degree to which Flow Recommendations are met for the Gunnison River will be modeled and measured at the Whitewater USGS gage (Gunnison River near Grand Junction). Only approximately 50 percent of the basin above this point is regulated by the Aspinall Unit, thus it is apparent that Unit operations can only partially assist in meeting recommendations.

Copies of the Flow Recommendations are available on the internet at <http://www.r6.fws.gov/crrip/doc/GunnCoflowrec.pdf>.

2. Public Scoping Activities

Several methods were used to inform the public and solicit comments on preparation of the EIS. These methods included publication of a Notice of Intent in the Federal Register, press releases, preparation and mailings of information packets, meetings with interested parties, scoping announcements, and public scoping meetings.

The formal scoping period began on January 21, 2004 with the publication of a Notice of Intent in the Federal Register. The Notice described Reclamation's intent to prepare an EIS, announced public meeting dates, and solicited public comments. The original comment period was extended to April 15, 2004.

Reclamation distributed an announcement of the scoping meetings along with background information to an initial EIS mailing list of approximately 170 individuals, organizations, agencies, and Tribal governments. The announcement requested written comments as well as attendance at the scoping meetings. News releases and personal contacts were also used to notify people of the scoping meetings.

Public scoping meetings were held February 24, 25, and 26 in Gunnison, Delta, and Grand Junction, respectively. Representatives from federal, state, and local agencies attended the meetings, as well as members of the public. At the meetings, Reclamation presented background information and listened to public comment and questions. Forms were also provided for written comments. At the meetings, Reclamation offered to meet individually with groups or organizations to discuss the EIS process.

Additional meetings were held with the Fish and Wildlife Service, Western Area Power Administration, Western Resource Advocates, Colorado Water Conservation Board, Colorado River Water Conservancy District, Upper Gunnison Water Conservation District, and the Uncompahgre Valley Water Users Association.

A website has been developed to provide updated information on the EIS process (www.usbr.gov/uc/wcao/) and an e-mail address to obtain information or offer comments on the EIS has been established (aspinalleis@uc.usbr.gov).

3. General Scoping Results

Notes and transcripts from the scoping meetings are available for review at Reclamation's office in Grand Junction. In addition, written input was received from

approximately 40 agencies, individuals, and organizations and is also available for review.

The following section of this report summarizes comments and concerns associated with specific topics. The information is a compilation of information presented and no attempt is made to analyze/support/or refute the comments.

Planning considerations:

- Study area should be defined; suggestions include the entire Gunnison Basin or expanded areas to include all or portions of the Colorado River Basin.
- Time frame for analysis needs to be defined.
- Uncertainties related to climate, population growth, and socio-economic changes need to be addressed.
- Applicable laws, regulations, and contracts need to be tabulated; and type of actions requiring congressional authorization identified.
- Interrelationships of CRSP Units need to be explained.
- Adaptive management and coordination with recovery goals basin wide need to be considered.
- Existing data, data bases, and ongoing studies need to be tabulated. What resources are now monitored and what are the results?
- Will future water demands be projected?
- How is this planning effort integrated with other Basin planning efforts?
- How are the 2 targets (lower Gunnison and Colorado River) for flow recommendations to be handled?
- Gunnison River flows should be targeted; the Gunnison Basin should not be responsible for meeting Colorado River targets.

Proposed action and purpose and need:

- Several commentors stressed that the proposed action should be to recover the endangered species rather than “avoid jeopardy” under the ESA.
- Comments were made that ESA needs surpassed the need to meet other Unit purposes. Others stressed the importance of protecting Unit authorized purposes as a priority. There were also suggestions that the ESA issues and meeting traditional Unit purposes could be compatible.

Baseline (existing conditions from ESA standpoint):

- Most commentors believed the baseline should include existing water uses and agreements and should not include future or speculative projects.
- Concerning the 60,000 af subordination for the Upper Gunnison Basin, some commentors believed only that portion presently being used should be included in the baseline while others thought the total amount should be in the baseline.
- Commentors pointed out that the AB Lateral Hydropower Project should not be/should be included in the baseline.
- The role the Dallas Creek and Dolores Projects’ biological opinions play in the baseline needs to be determined.

- Full use of Dallas Creek Project water should be included in baseline.
- Some commentors believe that Aspinnall Unit storage water should be used to meet senior water right needs with supplemental storage releases and this should be part of baseline.
- The 2003 Black Canyon Settlement Agreement for Black Canyon reserved water rights should be part of the baseline.
- The 300 cfs minimum flow through Black Canyon should be in baseline.
- Flows for the Redlands fish ladder should be in baseline; final plans for Redlands fish ladder, fish screen, and migration flows would be determined in EIS process.
- Hydropower contracts are flexible, so they should not be in the baseline.

Alternatives:

- Suggestions were made that alternatives should seek recovery of fish, not just avoidance of jeopardy under the ESA.
- Section 7 (a)(1) of the ESA requires Federal agencies to use its authorities to conserve endangered species—applies to other agencies with Aspinnall interests—such as WAPA and NPS. These agencies should support alternatives that assist in fish recovery.
- Alternatives should include the April 2003 Black Canyon settlement agreement.
- Alternatives should protect existing uses and purposes. Alternatives should/should not include decommissioning the Unit.
- EIS should center on maximizing Unit flexibility for the benefit of all resources.
- Alternatives must protect Colorado’s ability to develop compact entitlement.
- Clarify whether the EIS will cover “water marketing”; many said that it should not.
- An array of alternatives should be presented; at least one should do everything possible to meet the flow recommendations.
- Alternatives should reveal tradeoffs---use of water for flow duration vs. peak flow; peak flows vs. base flows, etc.
- An alternative addressing “water banking” is needed—would involve reducing the Redlands call to gain storage for later use.
- Hydrology modeling will be important part of alternative development and should be open and understandable to the public and agencies and organizations.
- Alternatives should address severe and multi-year droughts—will alternatives enhance performance of the Colorado River system to address severe sustained droughts.
- Flexibility should be retained to address drought periods quickly.
- Adaptive management should be designed to respond to drought periods.
- Climatic variability should be considered in alternatives; relatively short records used in EIS may not be representative of the next decades; climate change models should be referred to.
- Consideration should be given to upgrading the Gunnison Diversion Dam to accommodate higher flows—would this also facilitate run-of-river hydropower at the diversion dam itself?

- An alternative of using water “surplus” to the existing needs (spill water) to generate a spring peak would meet many of the outlined purposes.
- Water should be held back in the Unit in fall and winter for a spring peak.
- Alternatives should protect the use of the Unit as the reasonable and prudent alternative under the ESA for the Dolores and Dallas Creek Projects.
- Alternatives should be concerned with meeting Gunnison River targets, not Colorado River targets---that should be responsibility of others on the Colorado River mainstem.
- Mitigation should be included for any adverse effects on water rights, water supplies, and flooding.

Water uses and water rights:

- Aspinall water rights and decrees need to be followed. Some believe that these call for the Unit to be operated to deliver storage water, when water is available, to minimize or protect against downstream calls by senior water rights; suggestions for a solicitor’s opinion on this subject were made.
- Lower flows at certain times of the year could increase “calls” on the river and harm municipal and other upstream water users; adverse effects should be addressed with mitigation plans—one idea would be providing augmentation water from Reclamation reservoirs.
- The Unit’s role in meeting compact calls needs to be addressed.
- Effect of climate changes on meeting compacts should be considered.
- What will be the effect on upstream waterways such as the Taylor River?

Water quality:

- If there are reduced flows in the river at times under alternatives, what effect is there on concentrations of pollutants, including selenium?
- How do alternatives affect point source discharge permits and storm water runoff?
- Analyze effects on Blue Mesa water quality—temperature of reservoir subbasins, reservoir stratification, etc.
- How do new flow regimes affect selenium and other water quality parameters? In turn what is the effect on endangered species, point source discharge permits, and fish and wildlife resources?

Recreation:

- Recreation at Blue Mesa is very important to Colorado and needs to be protected.
- Kokanee fishery at Blue Mesa is of statewide importance.
- Impacts on Gunnison Whitewater Park, Morrow Point Boat tour, reservoir accessibility, and other recreation concerns need to be addressed.
- Analyze effects on recreation use at the reservoirs; include effects on recreation facilities.
- Gunnison Gorge recreation is very important and is affected by river flow levels.
- Timing of spring peaks early in the May 15-June 15 window would be more compatible with recreational uses along the Gunnison River, in particular high use during the salmon fly hatch that begins early to mid-June.

Fish and wildlife:

- Impacts of alternatives on the tailwater trout fishery need to be addressed.
- A flow matrix has been developed previously that includes ramping rates for flow changes downstream from Crystal Dam.
- Ramping rates for release changes from Crystal should be used that protect public safety, aquatic insects, and the trout fishery.
- Will alternatives affect the whirling disease problem in the Gunnison River?
- Effect on Blue Mesa kokanee and other fisheries—food web, interaction of fish species, water temperature, spawning in tributaries, kokanee migration, and other factors should be addressed.
- Any plans for temperature modification of releases would adversely affect reservoir and tailwater fisheries.
- Effect of any water quality changes on fish and wildlife resources should be included.
- Fishery benefits related to the Taylor Park-Blue Mesa 1975 Exchange Agreement should be protected.

Endangered species:

- Several commentors stated that recovery of the endangered fish is a priority over other Unit purposes. Others believe Aspinall Unit purposes must be protected in developing alternatives for helping to meet the flow recommendations.
- Several commentors pointed out that flow recommendations are just one way of meeting the biological needs of endangered fish and other methods should be considered in the EIS.
- Are flows targeted at Whitewater or the State Line?-needs to be clarified early in process.
- Selected alternative should satisfy the Dallas Creek and Dolores Projects' biological opinions that call for upstream storage to offset depletion impacts.
- Early agreement with the Fish and Wildlife Service on the scope and rules of the ESA consultation is needed to avoid last minute misunderstandings.
- Increasing water temperatures in the Gunnison River to benefit endangered fish should be investigated.
- Escapement of nonnative fish from the Aspinall Unit should be determined and effects of these nonnative fish on endangered fish determined.
- Depletions (131,000 af) cited in the Dolores biological opinion are not correct; 81,000 af is the correct number.

Vegetation and wetlands:

- Restoration of a natural hydrograph would help maintain the riparian corridor along the river.
- Need to address effects on near-shore vegetation and habitat along reservoirs.
- What is effect on Black Canyon riparian vegetation?

Flood control:

- Reclamation should consider floodplain management in the Delta area as a flood control alternative.
- Alternatives should not increase flows over 10,500 cfs at Delta until flood control improvements made.
- Continuing to provide flood control benefits to Delta was expressed by several commentors as a concern.
- Spring peaks have flood control benefits by keeping the channel open and discouraging development in flood prone areas.
- Flood plain should be mapped.
- Lowering the flood target (cfs) at Delta could have unintended consequences of reducing Blue Mesa storage and reducing channel capacity of the river at Delta.
- Floodplains in the Delta area and downstream provide important endangered fish habitat and adequate flows are needed to allow these floodplains to function.
- Upstream icing targets should be revisited. Can existing ice easements or new easements substitute for the winter reservoir target elevations?
- Existing reservoir operations to reduce upstream icing problems should be continued.

Hydropower:

- Some thought that hydropower is an incidental purpose of the Unit and should not direct alternative selection. Others pointed out the importance of hydropower and indicated that alternatives should protect or enhance hydropower production.
- Hydropower revenues are important for CRSP and participating project repayment and for assisting in funding the Recovery Program --- these revenues should be protected.
- Cumulative impacts on hydropower due to operation changes at CRSP reservoirs need to be presented.
- Crystal Dam's role as a reregulating reservoir should be continued; only Morrow Point and Blue Mesa should be used for peaking.
- Power generation model of WAPA should be used in EIS process.
- If there are hydropower losses, consider re-pricing hydropower to more closely reflect the market value of peaking power so as to offset any economic losses.
- Also consider as an alternative a pumped storage peaking facility at one of the reservoirs. This would offset losses and increase flexibility.

Maintenance:

- Effect of flow recommendations (spring peak) on the Gunnison Diversion Dam should be analyzed.
- What are long-term maintenance needs for the Unit and how do they fit with alternatives?

Socioeconomics:

- Importance of the Unit for hydropower and recreation and related economics was pointed out.
- What method will be used to analyze impacts-will “Principles and Guidelines” be used?
- Will alternatives require cost-reallocations for the Unit.
- Will alternatives affect property values?

Tribal issues:

- Ute Mountain Ute Indian Tribe owns land south of Blue Mesa; will reoperation affect water rights; how are people’s water rights and uses affected?

Air Quality:

- Will more “flats” be exposed to wind erosion at Blue Mesa—what is effect on air quality of alternatives?

Black Canyon of the Gunnison National Park:

- Water rights for the Park need to be addressed in alternatives. Since settlement of the Black Canyon water right is in litigation, how will it be handled in hydrology modeling?
- April 2003 settlement agreement should be included in all alternatives.
- What are the effects of the alternatives on the resources of the Black Canyon?
- Some thought the alternatives should be designed to help protect the Park and meet Park purposes.
- Consider effects on sediment transport, riparian vegetation, fisheries, food webs, visitor use, river access, and anchor ice formation.

Gunnison Gorge Conservation Area:

- The effect of alternatives on recreation, natural resources, and economic benefits of the Gunnison Gorge needs to be evaluated.
- Tailwater fishery in the conservation area should be protected.

Curecanti National Recreation Area:

- The recreation and associated economic benefits of the reservoirs are very important and should be protected.
- Effects on recreation, recreation facilities, fisheries, and cultural and paleontological resources need to be addressed.

Transmountain Diversions:

- One group pointed out that Colorado’s compact water is for use in all of Colorado, including the Front Range.
- Others stressed that EIS alternatives should not “set aside” any specific amount of water available for future use, including Front Range use. The EIS analysis should show the effect of alternatives on “water yield” of the Unit.
- What cumulative impacts relate to potential transmountain diversions?

Programmatic Biological Opinion:

- A PBO is very important to water users in the Gunnison Basin and should be part of or coordinated with the Aspinall EIS process.
- A PBO would benefit both federal and private interests.
- A PBO would replace or supercede the Dallas and Dolores biological opinions.

General:

- Improve notification of the public; present public information in a manner that lets the public know how they may be affected; need to keep the process, including water modeling, an open process.
- Reoperation offers the opportunity to sustainably support both the ecology and biota of the Gunnison Basin as well as the needs of the people in the region.

4. Input from agencies and organizations

Agencies and organizations provided comments and are summarized in the following paragraphs:

Senator Allard: Operation of the Aspinall Unit is critical to irrigation, recreation, drinking water supplies, and protection of Colorado’s interests in Compacts. Alternatives should protect historic hydropower capacity and water storage for multiple uses. Alternatives that use “spill” water can meet many needs, including endangered fish needs and Black Canyon National Park needs.

Fish and Wildlife Service: The Service recommends that the proposed action clearly go beyond “avoid jeopardy” and should provide flows to achieve species recovery. An essential element of the Recovery Program is to provide and protect instream flows and providing adequate flows from the CRSP system is essential to the overall recovery of the endangered fish. Existing and future water uses rely on the success of the Recovery Program.

Section 7 (a)(1) of the ESA requires Federal agencies to utilize their authorities for the conservation of endangered species and this section applies to other agencies with interests in the Aspinall Unit operations, for example the Western Area Power Administration and the National Park Service.

Reclamation should examine alternatives that increase water temperatures in the Gunnison River. The flooding issue at Delta should be carefully investigated; risks determined; and solutions investigated with the goal of having adequate flows for floodplain habitat to function. Reclamation should review Blue Mesa “icing targets” to

allow additional fall/winter water storage. Nonnative fish escapement from reservoirs should be investigated and effects on listed fishes presented.

The Service recommends that during the EIS process the Aspinall Unit be operated in a manner that resembles the flow recommendations.

The EIS process should evaluate how alternatives would offset impacts of the Aspinall Unit and other projects that rely on the Aspinall Unit for ESA compliance, such as the Dallas Creek and Dolores Projects.

Effects of alternative flow regimes on selenium concentrations (and other parameters) should be evaluated as to effects on attainment of water quality standards, point source discharge permits, selenium concentrations in critical habitat, and fish and wildlife resources.

National Park Service: Future operations should adequately protect resources of the Black Canyon National Park and Curecanti National Recreation Area. Reservoir issues that should be considered in EIS include: effects on upstream icing, fish populations, water temperature in subbasins of Blue Mesa and related food web and fishery resources, water and land based recreation, location of tributary inflows at different reservoir levels, cultural and paleontological resources, visitor facilities, and Morrow Point boat tour operations. Gunnison River issues include: sediment transport, fisheries and food web, riparian vegetation dynamics, visitor use and access, and anchor ice formation.

NPS wishes to participate in development of the baseline and alternatives and in development of ESA documents. Concerned with how the April 2003 Black Canyon Agreement will be handled in the No Action Alternative. EIS should clearly present operational criteria to be used to meet the agreement. Action alternatives should include a range that fully meets the needs of the endangered fish while attempting to meet Aspinall Unit purposes. Alternatives should address meeting average peak flows and instantaneous peaks. Need to keep in mind that final quantification and resolution of the Park's reserved right may affect operations.

Western Area Power Administration: WAPA believes that Reclamation should use the EIS process to identify ways of meeting purposes of the EIS without affecting hydropower. Western and their contractor Argonne National Lab have done an analysis that shows Gunnison River flow recommendations can be met using "spill" water in wetter hydrologic conditions; this analysis needs to be refined so that it can be developed into the preferred alternative.

The 2003 Black Canyon settlement agreement should be included in all alternatives.

Operating practices have developed over time, for example flow regimes to protect brown trout spawning. The No Action alternative should provide a range of operational

guidelines, including the undocumented operational practices to make it clear that the impacts of No Action are variable, depending on the use of unofficial operating practices.

Cumulative impacts of restrictions of CRSP reservoirs on hydropower need to be analyzed.

Flow recommendations allow considerable flexibility in achieving targets; this flexibility should be recognized in alternatives. WAPA encourages Reclamation to develop alternatives without strictly adhering to the example described in the flow recommendations.

WAPA requests that they be a co-consultant on ESA issues and utilize WAPA's technical expertise in negotiating the reasonable and prudent alternative, conservation measures, and "take" provisions.

According to the NOI, Reclamation is attempting to "avoid jeopardy"; the flow recommendations are a contribution to "recovery". Therefore WAPA believes that Reclamation is not required to strictly meet all of the flow targets.

Bureau of Land Management: The Gunnison Gorge National Conservation Area downstream from the Aspinall Unit is a valuable recreation resource and is important to the local economy. BLM has previously provided input on the relationship of river flows to recreation and natural resources.

National Oceanic and Atmospheric Administration: The EIS should assess the implications of climate variability and long-term trends in climate for meeting the goals of Aspinall operations. Effects of long-term droughts need to be considered and alternatives should allow for adaptive management to account for water conditions that are outside the boundaries of historical data. Flow recommendations are based on a relatively short period of record; using a longer record and consideration of climate variability may be beneficial.

Referenced some studies that indicate a trend toward lower and earlier runoff conditions and this should be considered in alternative development.

Environmental Protection Agency: The purpose for the proposed action should be to meet ESA requirements. The Congressionally-recognized priority under the ESA takes precedence over other authorized purposes. The baseline for the project should not include future water depletions such as the AB Lateral Project or "60,000 af" subordination.

Ute Mountain Ute Indian Tribe: Effects of operation changes on junior water rights and all water users in Basin must be considered in the EIS.

General Assembly-State of Colorado: Expressed concern that new operations could adversely affect water storage benefits and hydroelectric supplies. Use of "spill"

water for spring flows can meet endangered fish needs, protect Aspinall Unit purposes, and comply with the April 2003 Black Canyon settlement agreement.

State of Colorado (Water Conservation Board, Division of Wildlife, and Division of Water Resources): Aspinall Unit is invaluable resource to Colorado-purposes of the Unit including river regulation, water storage, compact development, etc. must be protected. Hydropower revenues from Aspinall are valuable for recovering costs of CRSP and participating projects; also revenues help fund Recovery Program. Colorado feels it is imperative that this EIS strive to protect all the authorized purposes of the Unit and the delicate balance that exists among those purposes.

The authorized purposes must remain the highest priority and the EIS should center on maximizing Unit flexibility for the benefit of all resources. No alternative should preclude Colorado from developing its compact-entitled water.

The April 2003 Black Canyon settlement agreement must be included in alternatives; settlement will also help endangered fish.

Concerning flood control, Colorado expects the 10,500 cfs limit at Delta described in the April 2003 agreement to be honored until appropriate flood protection improvements are made. Winter “icing” targets presently used are appropriate.

Colorado urges Reclamation to use the power generation model of WAPA in the EIS process and to consider modeling work performed by Argonne Labs that emphasizes combining “spill” water into spring peaks. Colorado also will use its Colorado Decision Support System models to assist in the EIS.

Impacts of alternatives on the downstream Gold Medal fishery and the reservoir fishery should be evaluated. Entrainment, species interactions, limnological changes, and kokanee migration are some of the reservoir factors to be analyzed.

Effect of alternatives on Aspinall yield should be determined.

Modeling of the baseline condition is an important step. All current uses and exchange agreements should be included in baseline. Water presently used under the 60,000 af subordination should be included as should flows for the Redlands fish ladder (subject to plans as they may be modified in EIS process). Minimum Black Canyon flows of 300 cfs should be included and adjudicated rights should be included/excluded in a consistent manner.

Colorado has not seen evidence that temperature modification structures at Blue Mesa would be useful or necessary for endangered fish recovery. Such modifications would require significant structural changes and may have significant detrimental effects to reservoir and river fisheries. Reservoir stratification could be adversely affected to the detriment of the Blue Mesa kokanee fishery which is of statewide importance.

The Dallas and Dolores Projects biological opinions need to be considered in the process; the Aspinall Unit is not the only source of water referred to in those opinions. On a related topic, depletions from the Dolores Project average 81,000 af compared to 131,000 projected in the Dolores biological opinion.

EIS should focus on target flows at the Whitewater gage; these flows will provide benefits to endangered fish in the Colorado mainstem, but the target should be the lower Gunnison. The Gunnison Basin should not be responsible for meeting Colorado River flow targets. The Recovery Program has agreed that upstream flow recommendations (15-mile reach) will be the controlling flow recommendations for the Colorado River and therefore the EIS should concentrate on flows for the lower Gunnison.

The proposed Programmatic Biological Opinion would supercede existing opinions on Dallas and Dolores Projects.

Operational flexibility should be maintained in alternatives to allow for adaptive management. Decommissioning should not be included in alternatives.

Solicitor interpretation of decrees and supporting documents is needed to determine the Unit's role in protecting water users from administrative calls.

Alternatives should not limit the Unit's ability to respond quickly to drought periods.

City of Delta: The City is concerned with high flows that damage public and private property. The City begins spending money for flood protection when flows reach 10,000 cfs. Alternatives that cause risk and harm to citizens should not be considered reasonable alternatives—mitigation and protection measures should be evaluated.

The City is also concerned about any alternatives that adversely affect existing or future water supplies/water rights and related socio-economic values for users in the Basin and about any adverse effects on recreation/fishing.

Better notification of public meetings is needed.

Delta County Commissioners: The Commissioners want alternatives that include adequate flows for the trout fishery and river rafting, while allowing adequate water storage to support agriculture and future domestic uses.

Cities of Montrose, Ouray, Ridgway, and Olathe: Effects on municipal water supplies and water rights must be addressed in EIS process. Lower flows at certain times of the year may lead to increased "calls" on the river and could affect municipal supplies. Similar effects could occur to other water users. Adverse effects should be addressed with appropriate mitigation; one example would be setting aside augmentation water in Reclamation reservoirs.

Colorado River Water Conservation District: The District stressed that the primary purpose of the Aspinall Unit is related to regulating the flow of the Colorado River, storing water for beneficial consumptive use, making it possible for the states of the Upper Basin to utilize, consistently with the provisions of the Colorado River Compact, the apportionments made to and among them in the Colorado River Compact and the Upper Colorado River Basin Compact. The District believes that EIS alternatives must completely protect compact purposes.

The District recommended that certain existing commitments need to be in the baseline of the EIS: Taylor Park Exchange Agreement and Taylor refill decrees; winter reservoir targets to reduce ice flooding; downstream flood control; operations to serve as reasonable and prudent alternative for Dallas Creek and Dolores Projects under the ESA; operation according to water rights and satisfying water needs of downstream seniors; and protection of recreation and its economic benefits.

The District believes that Aspinall Unit rights and decrees call for operations that, insofar as available, satisfy prior decrees downstream from the Unit. A change in the operation of the Aspinall Unit which alters the historical river call regime on the mainstem of the Gunnison will have major impacts on virtually every water user in the Gunnison Basin with water rights junior to the 1905 priority of the Redlands senior right.

The EIS needs to address operations of the Redlands fish ladder and fish screen and any impacts on water users needs to be mitigated.

The “marketable yield” concept for Blue Mesa is fictional. The reservoir has an available yield which covers all uses and there is no separate “marketable pool.” After the EIS Record of Decision has been completed and a Gunnison River Basin Programmatic Biological Opinion implemented, Reclamation can then, and only then, determine what amount of the Unit yield (beyond the relatively small amount of existing and foreseeable future in-basin contracts) may be marketed. As discussed previously though, all Aspinall Unit contracts are subject to the primary purpose of meeting compact demands.

The District stressed the importance of a Programmatic Biological Opinion to the Gunnison Basin.

Uncompahgre Valley Water Users, Tri-County Water Conservancy District, and Redlands Water and Power Company: These groups supported comments of the Colorado River Water Conservation District and expressed concern that Reclamation may have an overly broad view of its discretion in Aspinall Unit operations—the baseline should accurately address existing operational commitments made to congress, states, water users and state courts. Unit purposes need to be protected and the primary purpose is river regulation, which means storing water in times of high flows and releasing it when there are shortages. This river regulation function needs to be in the baseline.

Ridgway Reservoir operations should not be affected, since the Aspinall Unit provides ESA “mitigation” for Dallas Creek Project depletions.

Modeling of the river system should use full Gunnison Tunnel and M&D Canal capacities during the irrigation season; and Ridgway should be shown to simulate the maximum exchange of the M&I pool for the entire study period, and not be limited to historical demands. Redlands diversions should be shown at the maximum divertible under its water rights.

The baseline should reflect the terms of water decrees, particularly Case CA 5782, that indicate that Crystal releases be made “insofar as available, be in such quantity as will satisfy at all times prior decrees from said Gunnison River below the Crystal Dam when commingled with the natural accretions in the channel of said river.” In the Districts’ view, the term insofar as available means that Reclamation is obligated to make releases from the Unit to satisfy downstream seniors, unless the water surface elevation at Blue Mesa is below the minimum necessary to operate the Blue Mesa powerplant. Recent operations do not represent an appropriate baseline because operations have not met these obligations.

Alternatives should include something similar to the 1995 fish ladder agreement and a similar agreement should be extended to the entire year.

Alternatives should not make up endangered fish flow shortages downstream in the Colorado River; the Aspinall Unit has enough to do as the reasonable and prudent alternative for Gunnison Basin Projects without having to make up for failures by Denver and the Colorado Big Thompson Project to mitigate their transmountain depletions.

A Gunnison PBO process should be initiated and run concurrently with the Aspinall EIS.

Setting aside a portion of Aspinall Unit water for future marketing is premature and not supported by the NOI of the EIS.

Upper Gunnison Water Conservancy District: Reclamation should clarify whether the proposed action should avoid jeopardy or strive for recovery of endangered fish. Improved accuracy in measuring water storage in Blue Mesa is needed. The role of the Unit in meeting compact deliveries needs to be considered in alternatives. A Gunnison Basin PBO should be integrated into or coordinated with the EIS process and alternatives should be designed to serve as a reasonable and prudent alternative for all Gunnison basin depletions. Existing commitments should be recognized and maintained in the process and in the baseline; for example the Taylor Park Exchange Agreement, the 60,000 acre-foot subordination, protection from downstream calls, and reservoir targets related to ice-flooding.

Dolores Water Conservancy District: Under the 1980 Dolores Project biological opinion, the reasonable and prudent alternative (under ESA) consists of releases from CRSP reservoirs, historically the Aspinall Unit. The District seeks

assurance that the EIS will continue to include releases from the Aspinall Unit to serve as ESA coverage for the Dolores Project. The EIS should not preclude Colorado from developing its compact water and, specifically, should not preclude the ability of Dolores and San Miguel Basin water users from using the Recovery Program as a reasonable and prudent alternative for depletions.

Southwestern Water Conservation District: The EIS should not preclude, and in fact, should enhance Colorado’s ability to use its compact water. Flexibility in alternatives is needed to address evolving understanding of fishery needs. Existing and future depletions in the Dolores and San Miguel Basins should continue to be able to depend on the Recovery Program for ESA compliance and releases from the Aspinall Unit should continue to provide the reasonable and prudent alternative for the Dolores Project.

Early agreement with the Fish and Wildlife Service on the scope of the EIS and the rules of ESA consultation are essential to avoid later misunderstandings.

Colorado Trout Unlimited: The proposed action should result in full implementation of flow recommendations. Alternatives should be designed to conserve endangered species, not merely avoid jeopardy. The definition of the proposed action should be amended to remove any suggestion that the Unit’s authorized purposes must be maintained at the expense of complying with ESA obligations. Reservoir target goals and existing operations need to be revisited in developing alternatives to conserve endangered fish. EIS should evaluate effects of alternatives on the trout fishery.

The baseline for the EIS should not include speculative projects such as the AB Lateral Hydropower Project and undeveloped portions of the 60,000 acre-foot subordination for the upper Gunnison Basin. The EIS must be clear that baseline conditions are not immutable and may have to be altered to comply with the ESA.

Water rights for the Black Canyon of the Gunnison National Park need to be addressed in the EIS process.

Grand Valley Anglers, Trout Unlimited: Crystal reservoir should continue to reregulate peaking releases from Morrow Point and Blue Mesa. Ramping rates for release changes from Crystal should be planned in coordination with the Colorado Division of Wildlife to protect public safety, aquatic insects, and the fishery. Peak releases in the early part of the spring peak window of May 15 to June 15 would be more compatible with fishing recreation than in the later half of the window. Fishery benefits of the 1975 Taylor Park-Blue Mesa Exchange Agreement should be protected.

Western Resource Advocates¹: Believes Reclamation must analyze alternatives that meet the flow recommendations, not merely avoid jeopardy. The “need” for the EIS should be revised to reflect the true aim of the EIS—to promote conservation and

¹ Including The Nature Conservancy, San Juan Citizens Alliance, Colorado Environmental Coalition, and Audubon Colorado.

recovery of the endangered fish. Reclamation should not be constrained by other Unit purposes from assessing alternatives to meet flow recommendations.

The baseline for the study is important and should only include existing water uses. Target reservoir levels and release schedules need to be re-examined in light of the need to benefit the endangered fish.

Modeling of operations is critical to the study and this should be an open process. Dallas Creek and Dolores Project biological opinions and water for the Redlands fish passage need to be considered in the EIS.

High Country Citizens Alliance²: Reclamation's obligation to ESA goes beyond avoiding jeopardy, should use operations for endangered fish recovery. Concerning flood control, there are alternatives other than limiting spring peaks—for example the channel at Delta could be deepened and banks modified.

Filling Blue Mesa should remain an operation goal; recreation at Blue Mesa is very important to the economy of Gunnison. The baseline should include existing uses and agreements; existing hydropower operations can be modified and are not part of the baseline. Commitments in the Dallas Creek and Dolores Project biological opinions should be included in the baseline.

Winter elevation target for Blue Mesa should be revisited. Speculative projects should not be included in the baseline.

Living Rivers: The EIS should consider effects on the Black Canyon of the Gunnison National Park and explain how operations should be managed to ensure compliance with the non-impairment provision of the NPS Organic Act. Non-native fish need to be addressed in the EIS and alternatives that eliminate predation by non-native fish need to be considered. A programmatic EIS that analyzes the dysfunction of the critical habitat of the Colorado River basin is needed rather than piece-meal approach of separate EIS's on CRSP Units.

Water quality must be addressed including the effect of motorized boating on water quality. Decommissioning the Unit must be considered as an alternative in the EIS because it meets the definition of reasonable and practical under NEPA.

Black Canyon Chapter Audubon: Implementing flow recommendations will benefit other wildlife in addition to endangered fish species. Changes in historical water use patterns may need to be investigated as part of alternatives.

Center for Native Ecosystems: Stressed that EIS should seek to recover the endangered fish species and other native species. Recovery should be emphasized over

² Including Sierra Club, Western Colorado Congress, San Juan Citizens Alliance, Western Slope Environmental Resource Council, and Colorado Rivers Alliance.

“avoiding jeopardy.” Timing of releases and water quality should be carefully considered. The baseline should not include speculative projects.

Colorado River Energy Distributors: The EIS must recognize the benefits of hydroelectric power and assess impacts of alternatives on hydropower. Modeling by Argonne National Labs has shown that spring peak flows developed from surplus water could be periodically available to endangered fish without dramatic reoperation of the Unit.

Social and economic effects of any hydropower losses need to be addressed. Alternatives should maintain the multiple benefits of the Unit

Implementing the flow recommendations outright should be only one alternative considered in the EIS process, while other alternatives must consider the role of separate habitat management methods either solely or in conjunction with implementing the flow recommendations. Reliance on river flows for endangered fish recovery should not be made to the exclusion of other recovery methods, particularly if such river flows cannot be implemented without adversely affecting operation of the Unit for its authorized purposes, including hydropower generation.

The EIS should recognize the April 2003 Black Canyon water right settlement agreement; it should not seek to override or supplement the agreement to the detriment of hydropower. The settlement agreement can adequately protect the Black Canyon and avoid jeopardy to the endangered fish without disrupting the authorized purposes of the Aspinall Unit.

Platte River Power Authority: Aspinall Unit hydropower operations are critical to communities served by Platte River and impacts of alternatives on hydropower need to be carefully considered.

Palmer Divide Water Group: On behalf of a coalition of Front Range water providers, stressed that Colorado’s compact water is to benefit all of Colorado, including the eastern slope and that water imports are an alternative to drying up eastern slope agriculture. The EIS should consider flexibility in flow regimes that allow for future depletions. Inter-basin cooperation and collaboration are needed for Colorado to use its compact.

5. Cooperating Agencies

Several agencies and governmental organizations requested to be cooperating agencies during the scoping process:

National Park Service
Western Area Power Administration
Colorado Department of Natural Resources

Southwestern Water Conservation District
Platte River Power Authority

Other agencies such as the Fish and Wildlife Service and Bureau of Land Management are considering cooperator status. Cooperating agencies are agencies with special expertise or authorities that can assist Reclamation in the EIS process.

6. Discussion of Scoping Results

The Aspinall Unit is a large multi-purpose water project that presently provides a variety of significant benefits to the public. As a large water project, it has also resulted in significant changes and impacts to the natural environment. With this in mind, the two primary concerns from the formal scoping process were not surprising: 1) the existing and future traditional benefits and uses of the Unit should be protected in the EIS process, and 2) the EIS process should be used to restore river conditions to a more natural condition and assist in endangered species recovery.

Agencies, organizations, and individuals are often focused on a particular resource or special interest and this is reflected in the scoping input. Some entities stress the priority of endangered species recovery, others protection and use of water supplies, others hydropower, and still others recreation and fish and wildlife.

From the scoping input, an idealistic preferred alternative would be one that complied with the Endangered Species Act, assisted in the recovery of endangered species, and continued to protect the multiple benefits of the Aspinall Unit. While such an alternative may not fully exist, it should be kept in mind as a general goal.

There are general concerns from the scoping process regarding the EIS process that need to be addressed:

- The process should be open and understandable to interested parties.
- Hydrology modeling is a key activity in developing and evaluating alternatives and this modeling should be presented in an understandable fashion, coordinated with key interests, and should be periodically reviewed by interested parties.
- The purpose of the proposed action--“avoid jeopardy”--needs to be clarified to see if it limits alternatives that “recover” endangered species.
- The legal or policy role of Aspinall Unit water rights and decrees in reducing water right calls by downstream seniors must be determined.
- The role of the Unit in meeting Lower Basin compact demands needs to be addressed.
- The balance and legal requirements between meeting traditional authorized Unit purposes and Endangered Species Act requirements need to be determined.
- At this time, the Black Canyon of the Gunnison reserved water right has not been finalized; how to address this in modeling of alternatives needs to be discussed.

- The role of the Dallas Creek and Dolores Project biological opinions in alternative formulation needs to be determined.
- A programmatic biological opinion to provide ESA compliance to Gunnison Basin water users is very important to a variety of interests and the relationship of a PBO to the EIS needs to be agreed upon.

The NEPA process is well suited to addressing concerns outlined in the scoping process. Under NEPA a proposed action and purpose and need should be clearly identified. Of importance, a range of alternatives should be developed and significant issues identified during scoping analyzed prior to decision making. Public and agency participation and input should be considered throughout the process.

6. Summary

A public scoping process was conducted on the Aspinall Unit Operations EIS. Information collected will assist Reclamation in the development and analysis of alternatives and the identification of significant issues. Issues were identified that need to be resolved early in the process. Ideas for alternatives were also presented. There is strong public and agency interest in the operation of the Unit because of its importance in water development and use in Colorado as well as its importance to recreation, regional economic benefits, and in the potential to benefit endangered species.