

## **STATE AGENCIES**

- 1. State of Colorado, Department of Natural Resources**
- 2. Utah Associated Municipal Power Systems**
- 3. State of Utah, Governor's Office of Planning and Budget**
- 4. State of Utah, Office of the Attorney General**
- 5. Utah State University Extension**
- 6. Wyoming Game and Fish Department**
- 7. Wyoming State Engineer's Office**
- 8. Wyoming State Geological Survey**

NOV-18-04 16:49

FROM-DNR

8098662118

T-206 P.02/04 F-001

# STATE OF COLORADO

## OFFICE OF THE EXECUTIVE DIRECTOR

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DEPARTMENT OF  
NATURAL  
RESOURCES

Bill Owens  
Chairman  
Russell George  
Executive Director

November 19, 2004

Mr. Peter Crookston  
Flaming Gorge Environmental Impact Statement Manager  
PRO-774  
Bureau of Reclamation  
Provo Area Office  
302 East 1860 South  
Provo, UT 84606-7317

Re: State of Colorado comments on Flaming Gorge EIS

Dear Mr. Crookston:

Attached please find Colorado's comments regarding the Flaming Gorge EIS, prepared by Randy Seholm from the Colorado Water Conservation Board staff.

I hope you find these comments constructive to your preparation of a Record of Decision and a Final EIS.

Sincerely,

Tom Blickensderfer  
Endangered Species Program  
Director  
Colorado Representative – Upper  
Colorado Endangered Fish  
Recovery Management  
Committee

Board of Land Commissioners • Division of Minerals & Geology/Geological Survey  
Oil & Gas Conservation Commission • Colorado State Parks • Division of Forestry  
Water Conservation Board • Division of Water Resources • Division of Wildlife

**Operation of Flaming Gorge Dam  
Draft Environmental Impact Statement  
August 2004**

**Comments of the Colorado Water Conservation Board  
November 15, 2004**

The Colorado Water Conservation Board recognizes that the operations of Flaming Gorge Dam and Reservoir have little impact on water use and development in the State of Colorado, except to the extent that re-operation of the dam in attempts to meet flow recommendations for the Colorado River Endangered Fish is an important component of the Upper Colorado River Recovery Implementation Program. Therefore, our review of the DEIS concerning Flaming Gorge re-operations has been limited to the executive summary and few key sections dealing with authorized project purposes and the overall portrayal of the Recovery Program.

Flaming Gorge Dam and Reservoir are part of the Colorado River Storage Project and as such the portrayal of the authorized purposes of Flaming Gorge are important. Colorado strongly objects to the manner in which the authorized purposes of Flaming Gorge are portrayed in Section 3.1.1 of the Executive Summary and in Section 1.4.1.1 of the DEIS. Specifically, we request that the references to the 1968 Colorado River Basin Project Act and the Coordinated Long Range Operating Criteria be deleted from section 1.4.1.1 of the report as they are a gross

**1a** misrepresentation of the affect that the 1968 Act and the Long Range Operating Criteria have on the Colorado River Storage Project. While the quote from the 1968 Act is accurate, the interpretation that this section of the 1968 Act modifies the express purposes of the 1956 Colorado River Storage Project Act and is incorrect and in direct conflict with the general provisions contained in Title VI of the 1968 Colorado River Basin Project Act that prohibit such an interpretation. Furthermore, the referenced language from the Coordinated Long Range Operating Criteria deals with information that is to be reported in the annual report on reservoir operations and has absolutely nothing to do whatsoever with the purposes or manner in which the reservoirs are to be operated. The correct portrayal of authorized project purposes is extremely important to Colorado and to all the CRSP facilities that will be re-operated in attempts to meet flow recommendations adopted by the U.S. Fish and Wildlife Service and the Upper Colorado River Recovery Implementation Program.

Secondly, the purpose and need statement fairly captures the intent of the DEIS which is to protect and assist in the recovery of endangered fish and designated critical habitat while maintaining the authorized purposes of the Flaming Gorge Unit of CRSP, particularly those related to water development in accord with the Colorado River Compact. This same language

**1b** should be reiterated in Section S.10.2.1 by adding a phrase, "while allowing existing water uses and future water development to continue in accord with the 'Law of the River.'" It is important to reiterate this balance here and throughout the DEIS.

**1c** Third, we support the language that is contained in the last paragraph of the Introduction to Section S.5.

Fourth, the proposed operations and environmental commitments appear to be consistent with those that have been proposed and refined over the last few years, at least as we understand them. However, we are very concerned that the revised operations are described as "achieving the flow recommendations." The flow recommendations are based on the best available information at the time of their development. Flow recommendations may be revised through the adaptive

- management process and thus language indicating that flexibility should be included in the DEIS and reservoir operations allowed to adjust accordingly. The current language in the DEIS seems to stringent in this regard and should be modified when the flow recommendations are discussed in Section S.5.3 and in the discussion of alternatives in Section S.11. Flow recommendations do not establish a separate priority system for water development and this was expressly acknowledged in the program documents and such should not be forgotten.
- 1e
- Fifth, Section S.13.3.2 discusses the use of the Flaming Gorge bypass tubes and spillways. In general it was our understanding that such would be used when needed for the safe operation of Flaming Gorge Dam, which is consistent with the CRSPA. The discussion here states that such can be used when needed to meet the flow recommendations even if dam safety is not a concern. This seems inconsistent with the CRSPA and at the very least requires further explanation as to the justification for such. It would seem appropriate to indicate that all costs associated with use of the bypass tubes and spillways for other than emergency purposes be considered non-reimbursable costs in accord with Section 8 of CRSPA.
- 1f
- Finally, Colorado continues to be supportive of the adaptive management approach to flow recommendations and the refinement of flow-habitat relationships such that the maximum amount of habitat that is the most beneficial to the endangered fish species overall is created with the least amount of water. This is alluded to Section S.16 concerning uncertainties and Section 17 concerning how to address uncertainties through adaptive management. We would urge that Section S.16 include uncertainties associated with respect to the flow recommendations and that Section S.17 at the very least provide for the opportunity to revise flow recommendations as scientific information indicates may be appropriate.
- 1g
- 1h

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## **1. STATE OF COLORADO, DEPARTMENT OF NATURAL RESOURCES, COLORADO WATER CONSERVATION BOARD**

### **1a**

The referenced sections provide appropriate background information for the reader. Reclamation is committed to upholding its responsibilities under the ESA as well as meeting authorized purposes.

### **1b**

Reclamation agrees; the appropriate clarification was made in S.10.2.1 of the Executive Summary.

### **1c**

Comment noted;

### **1d**

The proposed action under consideration is meeting the 2000 Flow and Temperature Recommendations while maintaining all authorized purposes of the dam. These flow and temperature recommendations have derived from the 1992 Biological Opinion for Flaming Gorge. The EIS

acknowledges the flexibilities and uncertainties of implementing the 2000 Flow and Temperature Recommendations; and if better information is available for this purpose, Reclamation will utilize it in an adaptive management approach to making operational decisions.

### **1e**

Comment noted; see responses to 1a-c above.

### **1f**

Reclamation will not bypass water in a way that would violate the primary purposes of CRSP.

### **1g**

Reclamation agrees that incremental O&M costs should be non-reimbursable.

### **1h**

The Executive Summary was not meant to be an all inclusive document but rather is intended to summarize the full EIS. Please see sections 4.19 and 4.20 of the EIS for full discussions of these issues.



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November 9, 2004

Mr. Peter Crookston  
Flaming Gorge EIS Manager, PRO-774  
Bureau of Reclamation  
Provo Area Office  
302 East 1860 South  
Provo, Utah 84606-7317

RE: Operation of Flaming Gorge Dam Draft Environmental Impact Statement (DEIS)

Dear Mr. Crookston:

Utah Associated Municipal Power Systems (UAMPS) represents 38 municipal electric utilities, electric service districts and water conservancy districts that purchase and distribute power generated from the Colorado River Storage Project (CRSP). CRSP power represents a critical portion of our member's power resources and our members have a great interest in proposed changes in Flaming Gorge operations.

UAMPS has closely followed and participated in the development of the DEIS and has had the opportunity to be designated as one of the cooperating agencies. We are grateful for that opportunity.

As a member of the Colorado River Energy Distributors Association (CREDA), UAMPS fully supports oral and written comments made by CREDA in this process. In addition to comments submitted by CREDA, UAMPS wishes to emphasize the following points:

Flaming Gorge is a significant component of the CRSP power relied by not only our members but also power consumers in Wyoming, Utah, Colorado, New Mexico Arizona and Nevada. Any changes to Flaming Gorge operations will have an impact on all CRSP power contractors within those states.

- 2a** The final EIS must consider all operational and financial impacts of all alternatives. As seen from actual operation of the interim criteria, loss of any component of Flaming Gorge resource will be replaced from other sources. These replacements must not only be evaluated in terms of financial impacts to the CRSP system but also in terms of spinning reserve requirements and transmission system capacity affecting all contractors and power customers.

Mr. Peter Crookston  
November 9, 2004  
Page 2

- Replacement power purchases resulting from the Action Alternative will have a significant financial impact on the Upper Basin Development Fund which has been depleted in recent years due to the ongoing drought and increased operation and maintenance costs resulting from funding of environmental programs. This Basin Fund is the source of funding for the Upper Basin Recovery and Implementation Program (RIP) and other ongoing endangered species mitigation programs in the Colorado River Basin. Increased costs from replacement power resulting from operational changes at Flaming Gorge not only affects rates of CRSP power customers but weakens the integrity of all endangered species programs funded by the Basin Fund.
- 2b UAMPS agrees with other comments made in this process that the base economic evaluation must cover the period from 1974 when the interim operating criteria were initiated and subsequently modified in 1985 and 1992. These were significant changes that have not yet been included in any other NEPA compliance process. The final EIS must include the impact of operational changes since 1974.
- 2d UAMPS further suggests the final EIS include additional alternatives relating only to flow changes recommended by the biological opinion for endangered fish at the Jensen gauge. These alternatives include those being developed by the RIP since this program has been specifically established for the recovery of endangered species in the Upper Basin. Flaming Gorge generation is not the exclusive mechanism available for recovery of species.

We wish to express our great appreciation for the opportunity afforded to UAMPS to extensively participate in the EIS process and to submit our views.

Sincerely,



Edward C. Rampton  
Manager of Government and Public Affairs

Enclosure

cc: Leslie James, CREDA

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## **2. UTAH ASSOCIATED MUNICIPAL POWER SYSTEMS**

### **2a**

Financial impacts to the CRSP rate under the Action Alternative were found to be insignificant (section 4.4.3). Spinning reserve requirements and transmission system capacity affecting contractors and power customers were not considered in the hydropower analysis and were considered to be outside the scope of the analysis.

### **2b**

As the economic and financial analyses indicate, the Action Alternative simulation provides for increased value for the generation resulting in the average costs of replacement power potentially being lower than under the No Action Alternative. However, since the differences between the results for the No Action and Action Alternatives appear to be insignificant, the changes in costs for replacement power would likely be insignificant.

### **2c**

Reclamation, in consultation with the eight cooperating agencies, defined the No Action Alternative to include operations to achieve the flow and temperature regimes recommended in the 1992 Biological Opinion. In making that definition, it was also recognized by

Reclamation and the cooperating agencies that hydropower impacts associated with changes made between 1974 and 1992 should be recognized in this EIS as cumulative impacts. Operational changes made prior to 1992 are described in section 1.4.2. Hydropower impacts associated with changes made prior to 1992 have been addressed in section 4.16.2.

### **2d**

Reclamation developed the alternatives in the Flaming Gorge EIS with its public scoping period and with a number of cooperating agency meetings and dialogues. The alternatives derive from the RPA of the 1992 Biological Opinion as described in sections 1.4.5 and 1.4.6 of the EIS with the Action Alternative implementing the 2000 Flow and Temperature Recommendations that define flow targets for all reaches of the river.

The EIS acknowledges that re-operation of the dam cannot by itself achieve recovery of the endangered fish, but that it can assist in recovery along with other Recovery Program activities. Please see section 1.4.4 of the EIS.



State of Utah

OLENE S. WALKER  
*Governor*

GAYLE McKEACHNIE  
*Lieutenant Governor*

Governor's Office of Planning and Budget

WES CURTIS  
*State Planning Coordinator*

Resource Development Coordinating Committee

GLADE SOWARDS  
*Committee Chairman*

JOHN A. HARJA  
*Executive Director*

November 10, 2004

Peter Crookston  
Flaming Gorge EIS Manager  
PRO-774  
Bureau of Reclamation  
Provo Area Office  
302 East 1860 South  
Provo, Utah 84606-7317

SUBJECT: Operation of Flaming Gorge Dam - DEIS  
Project No. 04-4504

Dear Mr. Crookston:

The Resource Development Coordinating Committee (RDCC), representing the State of Utah, has reviewed this proposal. The Department of Natural Resources comments:

The UDWR fully supports incorporating flow and temperature recommendations for threatened and endangered species consistent with the maintenance and enhancement of the tailwater sport fishery and other wildlife values.

The division commend the U. S. Bureau of Reclamation (Reclamation) for generally incorporating adaptive management principles and the decisions of the Flaming Gorge Operations Working Group (Working Group) into the preparation of alternatives. In particular, UDWR strongly supports Reclamation's recommendation of flow fluctuation limitations, including a daily single-hump fluctuation and 800 cfs ascending and descending ramp rates, consistent with historic operations.

3a

Unfortunately, a few sections of the current document seem to minimize the agreements and recommendations of the Working Group, as evidenced by the addition of the second full paragraph on page 149. This paragraph incorrectly implies that the flow fluctuation limitations mentioned above have not been strictly followed in the past. In reality, these recommendations, which were the result of intensive investigations and discussions by the diverse interests of the Working Group, reflect historic operation except in times of emergency. Although minimizing operational constraints may benefit the incident authorized purpose of power generation, the authorized purposes and associated resources would be negatively impacted by further liberalization of release parameters.

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*Where ideas connect*

- 3b The UDWR supports the recommendation for a 55°F release temperature during dry and moderately dry years, maintaining adequate river temperatures for trout at the Utah/Colorado state line. Additionally, thermal mixing should be incorporated into emergency operations in response to power plant shut-down and a switch from penstock to bypass releases. Consistent with past discussions and decisions between UDWR and Reclamation, temperature warming can be attained (optimized) during spring high flow events by mixing spillway and bypass water to minimize the loss of production. Thermal mixing during emergency bypass will prevent thermal shock and mortality of tailwater fishes. In the absence of selective withdrawal modifications to the bypass penstocks, this mixing should be integrated into operations as a benefit to tailwater trout and downstream native fishes and their food base.
- Finally, the Bureau of Reclamation has invested in research, monitoring and infrastructure at Stewart Lake Waterfowl Management Area (WMA) near Jensen to remediate the effects of selenium and boron accumulation caused, in part, by concentration through irrigation return waters. It is estimated that the dikes of the WMA are inundated at Jensen gauge discharges of approximately 23,000 to 26,000 cfs. Infrastructure such as operational mechanisms of the inlet and outlet structures will be inundated at these higher discharges, and may be damaged. To fulfill responsibilities of remediation at Stewart Lake Waterfowl Management Area, the Bureau of Reclamation should provide for protection and modification of dikes and associated infrastructure threatened by high discharges; or maintenance and repair of structures damaged by high discharges.
- 3c

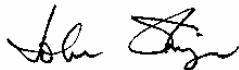
SPECIFIC COMMENTS

- 3d Section 2.5.2 (pg 65). This section implies all federal ownership, but should include the phrase "some private agricultural and state wildlife mitigation lands."
- 3e Section 2.6.1.1 (pg 67). Remove the sentence "Kokanee can spawn to a depth of 60 feet according to *Fishes of the Great Basin—A Natural History* (Sigler and Sigler, 1996)." Add (Sigler and Sigler 1996) reference after the sentence, "They spawn from late May through early July, and during this period mature fish move into shallow water 2 to 20 feet in depth." Also, smallmouth bass were originally stocked to promote growth of rainbow trout, not Kokanee salmon.
- 3f (pg 128). Higher and more stable reservoir elevations from November through April should benefit kokanee salmon egg incubation by inundation of favorable substrates and reduction of egg desiccation.
- 3g Section 3.2.1.2 (pg 132). Lower winter flows, particularly January through March, will benefit tailwater trout by more closely providing optimum winter habitat as per Modde et al. (1991) and Johnson et al. (1987).
- 3h Section 3.2.3.1.2 (pg 142). 55-57° F (13-14° C) should read 55-59° F (13-15° C) to match the table.
- 3i (pg 143). More frequent high spring flows should scour sediment deposits resulting from the Mustang Fire and subsequent rain/flood events.

- 3j      Section 3.3.1 (pg 148). Discussion of 800 cfs minimum flow should reference both the 1974 Interim Operating Criteria and historic operations, which have adhered to this flow except in emergencies.
- 3k      Section 3.6.1.1.2 (pg 158). As described in the General Comments, spillway and bypass water can be mixed during the high spring release to optimize temperature.

The Committee appreciates the opportunity to review this proposal. Please direct any other written questions regarding this correspondence to the Resource Development Coordinating Committee at the above address or call Carolyn Wright at (801) 537-9230 or Kim Frost at (801) 538-7326.

Sincerely,



John Harja  
Executive Director  
Resource Development Coordinating Committee

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### **3. STATE OF UTAH, GOVERNOR'S OFFICE OF PLANNING AND BUDGET**

#### **3a**

Section 4.4.1 of the EIS accurately characterizes the historic operations. The issues of daily fluctuations and ramp rate restrictions are not part of the proposed action and are, thus, outside the scope of this EIS; that is to say that any proposed changes to the existing agreement would occur through the Flaming Gorge Working Group.

#### **3b**

The temperature recommendations apply to the base flows, not to spring peak flows. Spillway use as described in this comment is outside the scope of the EIS and would be more appropriately discussed in the context of ongoing operations under either alternative. The EIS notes that spillway use is an uncertainty and that we may not be able to use the spillway if O&M costs and dam safety are a concern.

#### **3c**

Activities at Stewart Lake are undertaken through a cooperative effort by the U.S. Fish and Wildlife Service, Reclamation, and Utah Division of Wildlife Resources. An agreement is in preparation that will address appropriate ongoing monitoring and maintenance activities.

#### **3d**

It appears that this comment refers to chapter 3, section 3.6.2. The first paragraph of that section states “lands along the Green River, downstream from the dam, have a variety of ownership and uses as outlined below.”

#### **3e**

Comment incorporated.

#### **3f**

Please see section 4.7.1.1.2 of the EIS.

#### **3g**

Comment incorporated into section 4.7.2.4.1.2 of the EIS.

#### **3h**

Comment incorporated into section 4.3.4.1.2 of the EIS.

#### **3i**

Comment noted.

#### **3j**

It appears that this comment refers to chapter 4, section 4.4.1. While the discussion in section 4.4.1 refers to hydropower economic analysis for the No Action and Action Alternatives, and reference to 1974 operating criteria is made in section 4.16.2, cumulative impacts section, this comment is correct; a minimum flow of 800 cfs has been an operating procedure under an agreement with the State since 1974.

#### **3k**

The temperature recommendations apply to the base flows, not to spring peak flows. Spillway use as described in this comment is outside the scope of the EIS and would be more appropriately discussed in the context of ongoing operations under either alternative. Please see response to U.S. Fish and Wildlife Service 2a.

STATE OF UTAH  
OFFICE OF THE ATTORNEY GENERAL



MARK L. SHURTLEFF  
ATTORNEY GENERAL

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RAYMOND A. HINTZE  
Chief Deputy

KIRK TORGENSEN  
Chief Deputy

VIA FAX (801-379-1159)

November 15, 2004

Peter Crookston  
Flaming Gorge EIS Manager  
Bureau of Reclamation  
Provo Area Office  
302 East 1860 South  
Provo, Utah 84606-7317

Re: Operation of Flaming Gorge Dam Draft Environmental Impact Statement  
August, 2004

Dear Mr. Crookston:

I write at the request and authorization of the Daggett County Commission to comment on Daggett County's behalf regarding the above-referenced Draft EIS.

4a

As explained more fully in Daggett County's own comments, the Draft EIS preferred alternative aims to release water from the dam at such a high volume, over such a lengthy amount of time, and at such a time during the year, that the release will adversely affect the commercial and private use of the Green River and hence devastate the businesses of approximately 13 commercial river and fishing guide and outfitting companies, whose income depends almost entirely on their customers' experience on the Green River beneath the dam at a time when the preferred alternative will almost entirely negate fishing and other experiences due to high water volume. Most of the owners and employees of the companies threatened by this action are local citizens of Daggett County, and the local economy stands to suffer if these businesses are ruined.

The purpose of this letter is to advise you on behalf of Daggett County, that these river guide companies whose employment and revenues are so important to Daggett County's

Peter Crookston  
Flaming Gorge EIS Manager  
Bureau of Reclamation  
November 15, 2004  
Page 2

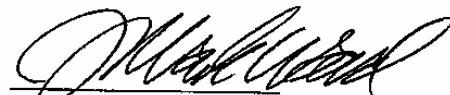
economy, intend to pursue a Court of Claims action under the Tucker Act, 28 U.S.C. § 1491, to recover compensation for economic loss caused by the actions of the preferred alternative. The United States Court of Appeals for the Tenth Circuit in *Gordon v. Norton*, 322 F. 3d 1213 (10<sup>th</sup> Cir. 2003), recognized that a Tucker Act remedy is available for loss of business occasioned by a federal action related to species preservation.

4b Please note also that Daggett County reserves the right to pursue Tucker Act and other claims for any other loss or damage that may result from the actions contemplated under the preferred alternative, including but not limited to any damage that high river flows may cause to a bridge on an RS 2477 Daggett County road that crosses the Green River below the dam.

4c

Sincerely,

MARK L. SHURTLEFF  
UTAH ATTORNEY GENERAL



J. Mark Ward  
Assistant Attorney General  
Public Lands Section

cc. Utah Association of Counties  
Daggett County Commission  
Uintah Basin Association of Governments

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## **4. STATE OF UTAH, OFFICE OF THE ATTORNEY GENERAL**

### **4a**

Please see section 4.12 of the EIS and response to Daggett County 1d and 1e.

### **4b**

Comment noted; Reclamation cannot prejudge liability in a NEPA document.

### **4c**

Comment noted; Reclamation cannot prejudge liability in a NEPA document. It is not appropriate to discuss case specific potential litigation in an EIS.



Uintah County Office  
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Phone: (435) 781  
Fax: (435) 781  
Email: uintah@ext.usu.edu

Comment on the Flaming Gorge Dam Environmental Impact Statement  
Boyd Kitchen, USU Extension – Uintah County  
October 21, 2004

- 5a** Flood control is one of the authorized purposes of Flaming Gorge Dam but is not addressed in this EIS. Several aspects of the Action Alternative are predicted to increase the frequency of flooding in order to assist in the recovery of endangered fish. However, information given in the EIS indicates that the level of flooding called for in the 2000 Flow and Temperature Recommendations for the Green River may not be necessary to recover the endangered fish. In section S.6.5, “Uncertainties Associated with Flood Plain Inundation”, reference is made to strategies (e.g., flows exceeding 13,000 cfs versus flows of 18,600 cfs, levee modification, inlet construction) that could meet the needs of the endangered fish without the extreme flooding predicted in wet years under the Action Alternative. Why were these strategies not evaluated as alternatives?
- 5c** Is there a maximum flow in Reach 2 that if exceeded will jeopardize the recovery of endangered fish? Shouldn’t the Action Alternative address how to modify flow regimes in order to avoid exceeding harmful maximum flows within the safety limitations of the Dam?
- 5d** One aspect of Socioeconomic/Regional Economics that has not been addressed by the EIS is the damage to irrigation pumps and irrigation systems that will be caused by the higher flows and increased sedimentation predicted by the Action Alternative. The damage includes the equipment, the cost of installation and the loss of crop production caused by the inability to deliver water to upland crops during the time it takes to repair flood caused damaged irrigation equipment. The crop damage could extend for several years if perennial crops like alfalfa die before irrigation can be restored. Damage to irrigation pumps and equipment could be minimized if adequate warning is given to farmers before peak releases are made. However, little can be done if excessive flooding occurs.
- 5f** In dry years, is there any advantage to the endangered fish in making a 4,600 cfs release from Flaming Gorge. If not, then perhaps the water should be saved for later use.

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## **5. UTAH STATE UNIVERSITY EXTENSION**

### **5a**

While flood control is an authorized purpose of CRSP, there are no flood control benefits identified for Flaming Gorge. Therefore, there are no restrictive operational rules imposed by the U.S. Army Corps of Engineers for flood control. However, flood plain inundation has occurred less frequently since Flaming Gorge Dam was built.

### **5b**

The referenced strategies do not meet the purpose and need of this EIS. The EIS notes that through the adaptive management process, refinements to the 2000 Flow and Temperature Recommendations and other actions to benefit the endangered fish are possible. See section 4.19.5 in the EIS and response to the National Park Service 3b-3e.

### **5c**

Native and endangered fish evolved under extreme hydrological conditions which included flows far in excess of those described in either the Action or No Action Alternatives, both of which are subject to constraints for safe operation of Flaming Gorge Dam. See section 2.5.1 in the EIS.

### **5d and 5e**

Reclamation is not responsible for damages to improvements or property in the flood plain. Any improvements have always been made by property owners at their own risk. Flood plain inundation has always occurred along the Green River, though less frequently since Flaming Gorge Dam was built. Nevertheless, though the frequency has declined since the dam has been in place, there has always remained the potential for significant flood plain inundation in wet years, and that potential will continue under either alternative. As part of its operation of Flaming Gorge Dam, Reclamation has in the past and will continue to provide public notification when flows are expected to increase, to enable property owners along the river to remove or secure equipment and livestock.

### **5f**

Anticipated benefits to endangered fish from a 4,600-cfs release in dry to moderately wet years include significant channel maintenance (habitat complexity and reworking of sediment deposits) in Reach 1 and achievement of flow recommendations and associated benefits in Reaches 2 and 3. See section 4.7.3.2, Action Alternative subsections in the EIS.

**WYOMING  
GAME AND FISH DEPARTMENT**

Dave Freudenthal, Governor

Terry Cleveland, Director



*"Conserving Wildlife - Serving People"*

November 15, 2004

WER 9767  
Bureau of Reclamation  
Upper Colorado Region  
Provo Area Office  
Draft Environmental Impact Statement  
Operation of Flaming Gorge Dam

Peter Crookston  
Flaming Gorge Environmental Impact Statement Manager  
PRO-774/BOR  
Provo Area Office  
302 East 1860 South  
Provo, UT 84606-7317

Dear Mr. Crookston:

The staff of the Wyoming Game and Fish Department has reviewed the Environmental Impact Statement for the operation of Flaming Gorge Dam. We offer the following comments for your consideration.

**Terrestrial Consideration:**

- 6a** The Operation of Flaming Gorge Dam Draft Environmental Impact Statement (DEIS) does not address the sport fishery and/or the limnology of Flaming Gorge Reservoir. One of the largest benefits of Flaming Gorge Reservoir is the recreational opportunity created by this large reservoir to people of southwestern Wyoming and northern Utah and to those that travel to the reservoir from across the country. The DEIS needs to address the impacts of releases and draw downs on Flaming Gorge Reservoir and how the Bureau of Reclamation (BOR) plans to mitigate or balance water releases to benefit of all forms of recreation created by the reservoir.
- 6b**

Our comments are as follows (Section and page number are included):

- S.3.1 Brief History of Flaming Gorge Dam and Reservoir. (Page S-3)*  
*S.3.1.1 Authorized Uses of Flaming Gorge Dam and Reservoir: Colorado River Development. (Page S-4)*

Article I.(2) of Section 402(a) of the Colorado River Basin Project Act requires that the Annual Operating Plan for Colorado River reservoirs "...shall reflect appropriate consideration of the uses of the reservoirs for all purposes, including flood control, river regulation, beneficial consumptive uses, power production, water quality control, recreation, enhancement of fish and wildlife and other environmental factors."

6c

Comment: The DEIS needs to consider the effects of the Operation of Flaming Gorge Dam for the recovery program for endangered fishes to the fishery, limnology, and recreational opportunities as a part of the DEIS. The DEIS does not consider or address the effects of selective temperature withdrawal or the timing and magnitude of draw down for flows in the Green River below Flaming Gorge Reservoir for endangered fishes on the reservoir fishery, limnology of the reservoir, or recreational opportunities provided by the reservoir. According to the Colorado River Basin Project Act, these issues should be studied and addressed in order to consider the effects of the Operational Plan presented in the DEIS.

*S.3.1.2 Authorized Uses of Flaming Gorge Dam and Reservoir: Flaming Gorge National Recreation Area. (Page S-4)*

The Flaming Gorge National Recreation Area was established by the Flaming Gorge National Recreation Area Act of 1968 (P.L. 90-540). According to that act, the purposes of the Flaming Gorge National Recreation Area include providing public outdoor recreation benefits.

6d

Comment: The act cited above states that the reservoir shall provide for recreation, which includes fishing, boating, and other forms of recreation as benefits of the reservoir. Again, the DEIS does not consider any of the recreational benefits that the reservoir provides to public.

*S.6 Operational Decision Making Process at Flaming Gorge Dam. (Page S-8)*

6e

Nowhere in this section does the DEIS mention how the operation of the dam will protect the Flaming Gorge Reservoir fishery and recreational benefits provided by the reservoir.

*S.9 Scope of Analysis for the Environmental Impact Statement. (Page S-9)*

The second paragraph states, "If Reclamation operates Flaming Gorge Dam to achieve the 2000 Flow and Temperature Recommendations.....consistent with CRSP purposes, then the effect(s) on the relevant resources/issues, both upstream and downstream from the dam would be....."

Comment: Article I.(2) of Section 402(a) of the Colorado River Basin Project Act requires that the Annual Operating Plan for Colorado River reservoirs "...shall reflect appropriate consideration of the uses of the reservoirs for all purposes, including flood control, river regulation, beneficial consumptive uses, power production, water quality control, recreation, enhancement of fish and wildlife and other environmental factors." The Flaming

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Gorge fishery, limnology of the reservoir and all other recreational benefits effected by the withdrawals needs to be addressed in the DEIS.

*S.11 Description of Alternatives. (Page S-14) S.11.1.3 Summary of Alternatives Analyzed in the Flaming Gorge Environmental Impact Statement. (Page S-15)*  
*S.11.1.3.1 No Action Alternative. (Pages S-15 thru S-16)*

Releases from Flaming Gorge beginning July 1 and continuing until November 1 should be the warmest available, approaching 59 degrees F.

**6f** Comment: The DEIS does not address how the current release pattern, based on reservoir operations since the adoption of the 1992 Biological Opinion, has effected limnology and productivity of Flaming Gorge Reservoir. Specifically, has a chemocline redeveloped in the Canyon area of the reservoir? How have these releases effected the development of thermoclines, the temperature budget of the reservoir, and productivity? Have releases increased the potential for blue-green algae blooms to occur in the upper portion of the reservoir? None of these parameters have been discussed under the "No Action Alternative" and/or the "Action Alternative."

*S.11.1.3.2 Action Alternative. (Pages S-16 thru S-18)*

Comment: The "Action Alternative" would not mimic natural flow events in the Green River sections targeted as well as the "No Action Alternative."

*S.13 Operational Description. (Page S-19)*  
*S.13.1 Safe Operation of Flaming Gorge Dam. (Pages S-19 thru S-20)*

Reservoir. It states, "For this reason, the reservoir elevation is intentionally drawn down during the fall and winter months."

**6g** Comments: Draw down prior to the operation of Flaming Gorge Dam under the 1992 Biological Opinion was erratic and varied considerably from year to year (fluctuations up to 25 feet). Since the 1992 Biological Opinion, releases and draw downs, especially between October 1 (kokanee spawning begins) and May 30 (kokanee fry emergence complete) has been less erratic and varied (less than 12 feet). Estimates of emergent kokanee survival after reservoir draw down from depth-adjusted mortality were 8.3% and 38.1% for elevation reductions of 3.3 feet and 16.4 feet, respectively (Modde et al. 1997). Modde et al. also found "that greater number of fry emerged from shallower depths in Flaming Gorge. Therefore, unless bias associated with depth-related mortality is accounted for, estimates of kokanee fry losses due to reservoir draw downs may be underestimated." Prior correspondence with the BOR from the Department asked the BOR to keep the draw down of the reservoir from October 1 (beginning of spawn) to May 30 (emergence complete) to 8 feet or less. We will continue to request this regardless of which Action Alternative is adopted by BOR for the operation of Flaming Gorge Dam.

*S.13.2 Reservoir Operations Process Under the No Action Alternative. (Pages S-20 thru S-22) S13.2.3 (Pages S-21 and S-22)*

The first paragraph on page S-22 of the DEIS states, "After September 15, releases from Flaming Gorge Dam could be increased.....

- 6i Comment: If natural river flows are to be mimicked, why should releases from Flaming Gorge Dam be increased instead of being operated at a base flow? Decreasing reservoir elevation after October 1 will result in the loss of kokanee eggs (recruitment) along the shorelines of the reservoir. The kokanee population in Flaming Gorge Reservoir supports a nationally important sport fishery and is the primary forage sustaining the lake trout fishery in Flaming Gorge Reservoir.

*S.13.2.4 Winter Operations (Late Base Flow) (Page S-22)*

The first paragraph states, "There are no specific flow recommendations provided by the 1992 Biological Opinion from November to May."

- 6j Comment: In order to account for kokanee spawning and emergence of fry, the above sentence would better serve the resource if it stated, "There are no specific flow recommendations provided by the 1992 Biological Opinion from October 1 to May 30." Flows during this period need to be reduced, so draw down is slowed by October 1 and no later than October 15 to accommodate spawning kokanee. Flows from Flaming Gorge Dam should not be increased above inflow levels to the reservoir until after May 30 to accommodate maximum survival of emerging kokanee fry, and no earlier than May 15 to accommodate the peak of emergence of kokanee fry. Draw down of the reservoir should be less than 8 vertical feet.

*S.13.3.1 Operations in May through July (Spring Period). (Pages S-23 thru S-26)*

First paragraph states, "Under the Action Alternative, Reclamation would establish a hydrologic classification for the spring period (May through July) based on the April forecasted unregulated Inflow."

- 6k Comment: In order to accommodate maximum survival of emerging kokanee fry, the spring period should be classified as June through July.

*S.13.3.3 Operations in August through February (Base Flow Period). (Pages S-26 and S-27)*

- 6l Comment: During the base flow period (August through February), it is critical that large releases and therefore large draw downs of the reservoir not occur after Oct. 1. Should the reservoir elevation be above critical levels, releases should be increased and draw down should

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occur prior to October 1. Reservoir elevations should not be decreased more than 8 feet until maximum emergence of kokanee fry has occurred (May30).

*S.13.3.4 Operations in March and April (Transition period). (Pages S-27 and S-28)*

**Comments:** The period of kokanee emergence from the shorelines of Flaming Gorge Reservoir identified above should be addressed in the DEIS. Kokanee and brown trout eggs spawned in the Green River between Fontenelle and Flaming Gorge Reservoirs should be taken into account when releases from Fontenelle are made. Increased flows from Fontenelle after the ice goes off of the Green River is advantageous for emerging kokanee fry and is a key to the timing of emergence and downstream migration to Flaming Gorge Reservoir. However, the timing and volume of early spring flows is critical to the survival and emergence of both kokanee and brown trout fry. Parsons and Hubert (1988) sampled fry in the Green River beginning on March 22 through May 27 when sampling was discontinued due to high flows. The largest numbers of fry were sampled on May 22. Emergence of kokanee fry in the Green River likely continues through the end of May. Flows should remain steady from Fontenelle Reservoir until all ice has left the lower Green River. Increased flows from Fontenelle Reservoir should mimic inflows into Fontenelle Reservoir, with increasing flows taking place in the later part of April or early May.

*S.14 Environmental Consequences. (Page S-28)*

*S.14.2 Water Quality, Water Temperature, and Sediment Transport. (Page S-32)*

Paragraph one addresses the effects of draw down on the frequency and severity of algal blooms in Flaming Gorge Reservoir. The conclusion described in this paragraph is correct, "reservoir draw downs during drought conditions cause larger algal blooms."

**Comment:** Blooms of blue-green algae are an annual occurrence on Flaming Gorge Reservoir. The severity and extent of the blooms appears to be tied to drought conditions (poor inflow) and draw down (reservoir elevation). Prolific fish kills in the inflow of the reservoir have occurred during severe algae blooms. Large releases from Flaming Gorge Dam should be minimized during drought years to avoid unusually severe and large scale blue-green algae blooms. Discussion of other limnological parameters of Flaming Gorge Reservoir was not included in this section of the DEIS.

Table S-9. --- Weight and Percent increase in sediment transport under the Action Alternative compared to the No Action Alternative. (Page S33)

**Comment:** Numbers in Reach 1 suggest sediment loading will increase under the Action Alternative. Reach 1 is likely sediment starved because of Flaming Gorge Dam. How will changing the flow regime increase sediment transport by up to 56%? The DEIS needs to explain the mechanism by which sediment transport will increase under the Action Alternative.

*S.14.14 Recreation (Page S-37)*

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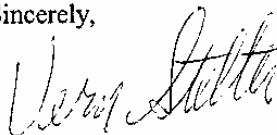
- 6p** Comment: There is no mention of impacts to recreational facilities (boat ramps, cut through between the Horse Shoe Canyon and Lower Flaming Gorge, etc.) on Flaming Gorge Reservoir under the No Action or the Action Alternative.
- 6q** Statements in this section are broad and contain little substance. More information needs to be provided in the DEIS to address both positive and negative impacts to both the river below Flaming Gorge Dam and especially the Reservoir above Flaming Gorge Dam. Much of the Reservoir recreation is based on the fishery, which can be significantly impacted by dam operations. An analysis of the Action Alternative's expected impacts on the fishery-based recreation would be appropriate.
- S.15 Cumulative Impacts. (Pages S-37 and S-38)
- 6r** Comment: Third paragraph, second sentence ignores the contribution of the sport fishery created in Flaming Gorge Reservoir and the significant benefits the reservoir fishery has to the economy of Sweetwater County, Wyoming and Daggett County, Utah.
- 6s** This fishery can be significantly affected by timing and extent of draw downs. The DEIS needs to address how the pattern of reservoir draw down under the Action Alternative will impact the reservoir fishery.
- S.16 Uncertainties. (Page S-38)
- 6t** Comment: The document does not mention the uncertainties the No Action or Action Alternative will have on the Flaming Gorge fishery, limnology of the reservoir, or recreational facilities on the reservoir.
- S.17 Addressing Uncertainties Through Adaptive Management. (Pages S-41 and S-42)
- 6u** Comment: Changing the operations at Flaming Gorge Dam has the potential to affect (both positively and negatively) the Reservoir as significantly as the River below. The DEIS should address how the BOR will monitor changes to the limnology and reproductive success and recruitment of kokanee, lake trout, and smallmouth bass found in Flaming Gorge Reservoir.
- 6v** Issues associated with the fishery should be monitored by our Department and UDWR by funds made available by the USFW under the Endangered Fishes Recovery Program. The Flaming Gorge Working Group would take under advisement changes to the Operations of Flaming Gorge Reservoir, which would be of value in improving the reservoir fishery.
- S.18 Environmental Commitments. (Pages S-42 and S-43)

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November 15, 2004  
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6w

Comment: A line item concerning the Flaming Gorge fishery and the limnology of the reservoir, as stated above, should be included.

Sincerely,

  
fwd) BILL WICHERS  
DEPUTY DIRECTOR

BW:VS:as

cc: Mary Flanderka-Governor's Planning Office  
USFWS

REFERENCES:

Modde, T., R.J. Jerie, W.A. Hubert and R.D. Gipson. 1997. Estimating the impacts of reservoir elevation changes on Kokanee emergence in Flaming Gorge Reservoir, Wyoming – Utah. *North American Journal of Fisheries Management* 17: 470-473.

Parsons, B.G. and W.A. Hubert. 1988. Reproductive characteristics of two Kokanee stocks in tributaries to Flaming Gorge Reservoir, Utah and Wyoming. *Great Basin Naturalist* 48:46-50.

## **6. WYOMING GAME AND FISH DEPARTMENT**

### **6a**

For detailed descriptions and analysis, please refer to the EIS sections 3.7.1 and 4.7.1. The Executive Summary provides a brief overview and is intended to be concise.

### **6b**

The EIS analyzes and discusses the potential impacts for all resources for Flaming Gorge Reservoir. No significant impacts to the reservoir or mitigation needs were identified. Please see sections 3.2.1.1, 3.3.1, 3.3.2, 3.7.1, 3.11, 4.3.1, 4.3.3, 4.7.1, and 4.11 in the EIS.

### **6c**

Please see sections 3.2.1.1, 3.3.1, 3.3.2, 3.7.1, 3.11, 4.3.1, 4.3.3, 4.7.1, and 4.11 in the EIS for the discussion of these effects.

### **6d**

The recreation section of the EIS (4.11) describes impacts, by recreation activity, to both Flaming Gorge Reservoir and the Green River as a result of differences in reservoir water levels and river instream flows between the alternatives.

### **6e**

The recreation section of the EIS (section 4.11) evaluated impacts to boat fishing based on water level fluctuation between alternatives.

### **6f**

The long-term history and impacts of the reservoir operation on algae and productivity in the reservoir are addressed in section 3.3.2 of the EIS. In general, the combinations of hydrology and operations from 1983 through about 2000 has resulted in higher summer and fall reservoir elevations due to decreased drawdown. This has generally reduced the magnitude of blue-green algae blooms

as explained in section 3.3.2. The conditions under either the Action or the No Action Alternatives would have resulted in very similar conditions over these same time periods. Water quality in the reservoir generally is slightly improved in the post 1992 Biological Opinion operating conditions and would continue under either alternative.

The overall heat budget in Flaming Gorge Reservoir was slightly altered by initiation of operation of the selective withdrawal structure to warm the Green River tailwater in 1978. This resulted in a little colder water in the winter and a little more of Flaming Gorge Reservoir being frozen over. However, no changes that have been made since 1978 would alter the heat budget in a perceivable way. The chemocline has not fully redeveloped since the reservoir turned completely over in the winter of 1981-82. The reservoir has become strongly chemically stratified in the canyons reach nearer the dam, but then turned over again. There is no indication another decadal chemocline will develop with foreseeable future conditions.

### **6g**

Figure 4.1 in the EIS indicates that, on average, drawdown of Flaming Gorge Reservoir under the Action Alternative between October and May (Kokanee incubation period) will be less than the No Action Alternative, the latter being no more than the 8-foot maximum requested by Wyoming Game and Fish Department. See sections 3.2.1.1, 3.3.1, 3.3.2, 3.7.1, 3.11, 4.3.1, 4.3.3, 4.7.1, and 4.11 in the EIS.

### **6h**

Under normal operations, or when inflows are sufficient or great enough to maintain reservoir storage while also maintaining the recommended flows under the Action and No Action Alternatives, drawdown elevations will most likely be within 8 feet of the previous year's peak

elevation. It is, however, possible that the reservoir elevation of Flaming Gorge will be such that a drawdown of greater than 8 feet would be necessary for safe operation of the dam in certain circumstances. Reclamation will always operate Flaming Gorge Reservoir to maintain safe levels given varying hydrologic conditions.

Typical drawdown levels in average years would be about 8 feet under the No Action Alternative and about 4 feet under the Action Alternative as is shown in the Hydrological Technical Appendix.

#### **6i**

The No Action Alternative operates Flaming Gorge to achieve the flow objectives of the 1992 Biological Opinion. The 1992 Biological Opinion allows releases to be increased after September 15 when it is necessary to release more water to operate Flaming Gorge Reservoir safely. Reclamation would operate under the No Action Alternative to safely operate Flaming Gorge within the constraints of the 1992 Biological Opinion unless conditions were such that safe operation of the dam could be in jeopardy. As has been done historically, Reclamation would consider the resource needs of the kokanee in the operational decisionmaking based on information provided by the Flaming Gorge Working Group. In such case, operations would be guided to maintain safe conditions of Flaming Gorge Reservoir. See answer 6g and 6h above and EIS sections 3.2.1.1, 3.3.1, 3.3.2, 3.7.1, 3.11, 4.3.1, 4.3.3, 4.7.1, and 4.11.

#### **6j**

The conditions imposed by the 1992 Biological Opinion cannot be changed. The No Action Alternative operates Flaming Gorge to achieve the flow objectives of the 1992 Biological Opinion. This opinion does make specific

recommendation for the period from the spring peak release through the end of October. It does not, however, have specific recommendations for the period from November through the spring peak. Under the No Action Alternative, Reclamation would operate Flaming Gorge Dam to use the flexibility during this time to maintain safe levels in the reservoir. See answer to 6g and 6h above.

#### **6k**

This classification was not conceived to account for kokanee survival but rather for implementation of the 2000 Flow and Temperature Recommendations for threatened and endangered fish below Flaming Gorge Dam (i.e., Action Alternative).

#### **6l**

Reclamation would safely operate Flaming Gorge Reservoir under the Action Alternative to achieve maximum resource benefit within the flexibility provided for in the 2000 Flow and Temperature Recommendations. See answer to 6g and 6h above and EIS sections 3.2.1.1, 3.3.1, 3.3.2, 3.7.1, 3.11, 4.3.1, 4.3.3, 4.7.1, and 4.11.

#### **6m**

Operations of Fontenelle Dam are outside the scope of the Flaming Gorge EIS. Kokanee in Flaming Gorge are discussed in sections 3.7.1.1, 4.7.1.1.1, 4.7.1.1.2, and 4.7.2.4.2.2.

#### **6n**

It has previously been noted that drought and greater reservoir drawdown result in larger blue-green algae blooms in the inflow area of Flaming Gorge Reservoir. The seasonally adjusted flows as recommended in the 1992 Biological Opinion result in lower summer releases in all years, including and especially in drought years. That has decreased summer draw down, which is why water quality in the inflow area has improved

since implementation of the seasonally adjusted flows as recommended in the 1992 Biological Opinion. See section 3.2 in the EIS.

**6o**

It is anticipated that higher flows in Reach 1 will increase erosion of bed material and bank material in portions of Reach 1. Channel morphological changes could occur as a result of this increased erosion. For example, local channel widening could result from this increase in bank erosion. Details of the sediment transport analysis for the EIS are found in the Technical Appendix (Effects of Flaming Gorge Operations Under the 1992 Biological Opinion and the 2000 Flow and Temperature Recommendations on Sediment Transport in Green River).

**6p**

The Flaming Gorge Reservoir recreation visitation analysis was based on a facility availability approach. Information on facility availability is provided in the recreation sections of both the EIS (section 3.11 and 4.11) and Technical Appendix (Recreation Visitation and Valuation Analysis).

**6q**

Much more detail on the recreation analysis is found in the EIS (section 3.11 and 4.11) as compared to the Executive Summary.

**6r**

A detailed recreation and socioeconomic/regional economic analysis was developed and described in the EIS (section 4.12).

**6s**

Please see sections 3.2.1.1, 3.3.1, 3.3.2, 3.7.1, 3.11, 4.3.1, 4.3.3, 4.7.1, and 4.11.

**6t, 6u, and 6w**

The EIS analyzes and discusses the potential impacts for all resources for Flaming Gorge Reservoir. No significant impacts to the reservoir or mitigation needs were identified; therefore, an uncertainties section and an environmental commitment for the reservoir were not necessary. However, Reclamation limnological studies are currently ongoing in the upper portions of Flaming Gorge Reservoir. See sections 3.2.1.1, 3.3.1, 3.3.2, 3.7.1, 3.11, 4.3.1, 4.3.3, 4.7.1, and 4.11

**6v**

As stated in section 4.7.1 of the EIS, the Action Alternative would be expected to benefit kokanee because reservoir elevations will fluctuate less between seasons and will tend to be higher. The EIS does not show positive or negative effects to the reservoir fishery of a magnitude that would warrant special actions over and above ongoing management by the States of Wyoming and Utah.



# State Engineer's Office

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PATRICK T. TYRELL  
STATE ENGINEER

November 8, 2004

Mr. Peter Crookston  
Flaming Gorge EIS Manager, PRO-774  
U.S. Bureau of Reclamation  
Provo Area Office  
302 East 1860 South  
Provo, Utah 84606-7317

Re: Wyoming State Engineer's Office Comments on August 2004 "Operation of Flaming Gorge Dam Draft Environmental Impact Statement"

Dear Mr. Crookston:

The Wyoming State Engineer's Office was involved in the negotiation of the Upper Colorado River Endangered Fish Recovery Program (Program) and has actively participated in the Program's conduct since its initiation. Accordingly, we have followed and advised the Bureau of Reclamation (Reclamation) concerning the preparation of the subject "Operation of Flaming Gorge Dam Draft Environmental Impact Statement" (DEIS) since Reclamation proposed preparing a National Environmental Policy Act (NEPA) document subsequent to the issuance of the 1992 Biological Opinion on operation of Flaming Gorge Dam and Powerplant by the Fish and Wildlife Service (Service). The 1992 biological opinion included a requirement for additional studies to address uncertainties and data gaps relative to the life history and habitat needs of the endangered fish species and intended to result in refinement of the Service's 1992 recommendations. The September 2000 *Flow and Temperature Recommendations for Endangered Fishes in the Green River downstream of Flaming Gorge Dam* represents the culmination of the additional studies pursuant to the 1992 opinion.

The Wyoming State Engineer's Office supports the action alternative set forth in this DEIS and urges Reclamation to issue the Record of Decision as promptly as practical. Further, as was the case in 1992 when the prior biological opinion on the operation of Flaming Gorge Dam was issued, the biological opinion to be issued in November and included with the final EIS for the dam's operation will, we believe, continue to acknowledge there are many remaining uncertainties and hypotheses about the dam's effects on the endangered fish and their habitat. Accordingly, the adaptive management approach that has historically and will continue to underlie the Program must continue to be used to guide and further refine operations of the Flaming Gorge Dam and Powerplant. The biological response of the endangered fish species to dam and powerplant-related operations remains the primary guiding determinant of whether

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Mr. Peter Crookston  
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Reclamation's dam operations and the Recovery Program's accomplishments are meeting the Program's objectives. The extensive discussions of "Uncertainties" and "Addressing Uncertainties Through Adaptive Management" found in the DEIS recognizes these facts and their ramifications for continuing within the "framework of the ongoing Recovery Program."

Importantly, the "Environmental Commitments" found in this NEPA document note that Reclamation will continue to participate in the Recovery Program and "the adaptive management process would rely on ongoing or added Recovery Program activities for monitoring and studies to test the outcomes of modifying flows and release temperatures from Flaming Gorge Dam." This is, in our view, the prudent and necessary course of action. The Wyoming State Engineer's Office continues to support the adaptive management approach that is advocated as a basic element of the action alternative. Under this approach, further refinement of the flow recommendations will occur to accomplish the objectives of the Federal action while meeting all authorized project purposes of the Flaming Gorge Unit of the Colorado River Storage Project. This necessarily requires a balancing of competing uses of the available water resources – and the providing of reservoir releases that benefit and provide the needed amount of nursery and other fish habitats while maintaining the greatest amount of conservation storage in the reservoir. Specifically, Reclamation is obligated to minimize the quantity of bypass tube and spillway flows to preserve conservation storage consistent with the Colorado River Storage Project Act while, to the extent practical, meeting the flow and temperature conditions specified in the 2000 Temperature and Flow Recommendations. It is fully anticipated that through the Recovery Program's collaborative, adaptive management approach, a reasonable balancing of the competing demands placed upon the water resources can be accomplished.

As you may be aware, the Wyoming State Engineer's Office was approached about being a cooperating agency to assist Reclamation with the preparation of the subject DEIS when the effort was initiated. Our office declined to do so for several reasons. First, re-operation of Flaming Gorge Dam has been a key element of the voluntary and collaborative conduct of the Program. Second, re-operation of the dam was mandated by the 1992 biological opinion, and further, we believe that Reclamation unilaterally decided voluntarily to prepare this EIS based on a desire to inform its constituency once the additional studies mandated by the 1992 opinion had been completed.

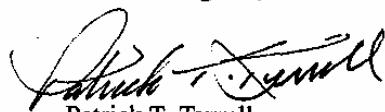
Reclamation has had great difficulty in generating alternatives to analyze beyond the "action alternative", because there really is no viable alternative beyond the preferred alternative/action alternative that complies with the Colorado River Storage Project Act, the Endangered Species Act and the mandates imposed by the previously issued biological opinion. There is no other alternative consistent with Reclamation's participation as a partner in the Program. The Wyoming State Engineer's Office has consistently advised Reclamation of our concerns that preparing this EIS could divert Recovery Program personnel and other resources away from ongoing Recovery Program efforts under the pretext of analyzing a decision that realistically had already been reached when the Program was initiated in 1988. Fortunately, the DEIS has finally been developed and released after many delays and difficulties.

Mr. Peter Crookston  
November 8, 2004  
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- 7a      Discussion of the Recovery Program should include specific mention of the Program's dual objectives to recover the four species of endangered fish while allowing the participating States' to develop their Compact-apportioned water supplies. The Program is intended to provide the reasonable and prudent alternative to offset the depletion impacts of existing water projects as well as new water projects (those occurring after the initiation of the Recovery Program in January 1988). The DEIS has specifically described the individual biological opinions that rely upon re-operation of the Flaming Gorge Dam but fails to mention the overall role of the dam's re-operation as a part of the Recovery Program.

7b      Once again, we urge Reclamation to expeditiously move forward with issuing the record of decision to complete this NEPA process and to continue to work cooperatively with its partners in the ongoing, successful Upper Colorado River Endangered Fish Recovery Program. Thank you for the opportunity to provide these comments. Should you have any questions, please don't hesitate to contact this office.

With best regards,



Patrick T. Tyrrell  
State Engineer

PTT/jws/jp

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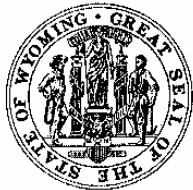
## **7. WYOMING STATE ENGINEER'S OFFICE**

### **7a**

See sections 1.4.4 and 4.16.4.1.1 of the EIS regarding the dual role of the Recovery Program in recovering the endangered species while allowing water development to continue.

### **7b**

See sections 1.4.4, 1.4.3 and 1.9.2.1 of the EIS regarding the proposed action and its relationship to the management actions of the Recovery Program.



## WYOMING STATE GEOLOGICAL SURVEY

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STATE GEOLOGIST – Ronald C. Surdam

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Mr. Peter Crookston  
Flaming Gorge EIS Manager  
Bureau of Reclamation  
Provo Area Office  
302 East 1860 South  
Provo, UT 84606-7317

November 8, 2004

RE: PRO-774

Dear Peter,

Ramsey Bentley and Seth Wittke of the Wyoming State Geological Survey Hazards Section would like to make the following comments on the Flaming Gorge Dam Draft Environmental Impact Statement.

- 8a** We have no specific concerns with the proposed action. In fact, the action may serve to improve water quality within the Wyoming reaches of the reservoir.

The geographic areas most affected by the Bureau of Reclamation's proposed action are in Utah and Colorado, downstream on the Green River. The action involves modifying water releases from Flaming Gorge Dam throughout the year. The modifications do not appear to present any substantial changes to the present operating effects of the dam on Flaming Gorge reservoir, the Wyoming portion of the Green River, or the surrounding areas. In fact, the modifications are predicted to reduce the frequency and extent that the reservoir would be drawn down annually, which in turn should promote improved water quality in the reservoir. This should also prove to reduce the frequency of algal blooms during the fall in the northernmost part of the reservoir.

All pertinent data was checked, including landslide, earthquake, and hydrologic data, for effect by the proposed action. The only other possible detrimental effect is that there are a few landslides along Flaming Gorge Reservoir. That may be influenced by the cycling of water depth. However this happens seasonally, so we're not sure if the new water level changes will cause any new slope stability problems. The majority of this proposal is outside of Wyoming, so very little of the report is pertinent to the state.

Sincerely,

Ronald C. Surdam  
State Geologist

Cc: Governor's Planning Office

*Serving Wyoming Since 1933*

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## **8. WYOMING STATE GEOLOGICAL SURVEY**

**8a**

Comments noted.

## **LOCAL AGENCIES**

- 1. Daggett County, State of Utah**
- 2. Rock Springs, Wyoming, Chamber of Commerce**
- 3. Town of Manila, Utah**
- 4. TriCounty Health Department**
- 5. Uintah County, State of Utah**
- 6. Uintah Mosquito Abatement District**



# DAGGETT COUNTY

## STATE OF UTAH

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November 15, 2004

Mr. Peter Crookston  
Flaming Gorge Environmental Impact Statement  
PRO-774 Bureau of Reclamation  
Provo Area Office  
302 East 1850 South  
Provo, Utah 84606-7317

Dear Mr. Crookston:

Thanks for the opportunity to respond to the Flaming Gorge Dam Operations DEIS.

**1a** Daggett County was not asked to be a cooperating agency for this project. We wish we would have been since this could greatly impact Daggett County employment, businesses, visitors and the people living here.

**1b** In 1992 a biological opinion was developed. This was used to recommend operational guidelines for the Dam. Was a study done to determine the effects of this opinion? If so could we get a copy of this?

**1c** The DEIS proposed action is to increase flows under different conditions. There is a major error in the Document on Page 117. 3.13.2 "River flows in Reach 1 . . ." "The river has exceeded 18,000 CFS five (5) times in the past 10 years and 20 times in the past 20 years." This is misleading, as the highest the river has been since the Dam was completed is 12,300 CFS in 1983.

**1d** How is this major error in the DEIS on water flows going to be communicated to the public?

When the river flows in Reach 1 exceed 4600 CPS a lot of things change. First, it becomes almost impossible for commercial guides to get people to fish the river under high flow conditions. Therefore, most fishermen stay away under these conditions. Second, with high flows some of the infrastructure becomes threatened and third, the high flows cause a safety issue.

*Commissioners:*

Chad L. Reed  
clreed@daggett.state.ut.us  
Craig W. Collett  
ccollett@daggett.state.ut.us  
Stewart Leith  
sleith@daggett.state.ut.us  
435-784-3218

*Clerk/Treasurer:*

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*Auditor/Recorder:*

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Dennis L. Judd  
Deputy Attorney:  
Rachelle Palmer  
435-789-5359  
Fax: 435-789-7075  
481 West 200 South  
Vernal, UT 84078

Fax Number: 435-784-3335

### Three Areas of Concern

#### 1) Socio Economic Impacts

1e In your opening statements about public concerns, "Socioeconomics" (Tourism related jobs and income) is listed, but we cannot find where loss of jobs and income is specifically addressed.

We have not had time to do surveys or complete analysis to estimate losses with increased flows. We have been able to generate some rough estimates.

The Forest Service allows 50 Commercial Guides to float the river each day in the spring until June 15<sup>th</sup>. Attachment #1 shows the Guide Launches for 2004. May averages 30/day and June averages 40/day. Attachment #2 shows the effects of high flows. During May of 1999 flows reached 6500 CFS the daily guide trips on the 24<sup>th</sup> - 29<sup>th</sup> dropped to between 0 and 7 daily trips.

Over a dozen businesses heavily rely on visitors to the river for their livelihood. Not only the guided fishing trips, but the lodging, restaurant, raft rentals, fishing supplies and R.V. parks, etc.

In the month of May almost all business in the Dutch John area is tied to the river. Very few people have started to visit the Flaming Gorge Reservoir or other areas.

When high flows occur, it greatly affects many businesses in Daggett County. If the Action Alternative is adopted Daggett County and its businesses will seek restitution for losses and damages. Without restitution most of these businesses will not be able to remain in business. Mark Ward from the State Attorney General's office is representing Daggett County on this matter. See attachment #3.

- Estimated Jobs lost during the period of high flows is 80. (16% of the total County employment) See Attachment #4.
- Estimated Sales loss for four (4) weeks over 8600 CFS plus 2 week ramp up and ramp down would be approximately \$1.8 million. See Attachment #5 & #6.

#### 1f Will Businesses, the County and employees be reimbursed for economic losses?

#### 2) Infrastructure Damage and Loss

In 1983 the bridge at Taylor Flat was washed out. In 1984 the bridge was replaced. This bridge is the only really good access to the south side of the river between the Flaming Gorge Dam and Jensen. The Swinging Bridge at the Colorado State Line provides some access although it is a suspension bridge and very narrow. The Taylor Flat Bridge provides access to the Taylor Flat Subdivision that has 1000 lots. Most are not

developed but several residents live there year round. Mention is made in the DEIS about possible damage to this structure with high flows. We are not aware of any study to determine what flows this bridge could withstand.

**1g** Would monies be available to replace this bridge quickly if needed?

In 1999 many of the trial between the Dam and Little Hole. In 1983 the Spillway Road and Boat Ramp were washed out. These things could have longer term effects on businesses and visitors.

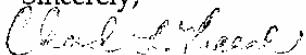
We believe these impacts should have been better addressed in the DEIS.

**1h** 3) Safety Concerns

With higher flows the velocity of the river would increase greatly (possibly from 2 mph to 8 mph). This increased velocity, plus the high flows would make accidents more serious for those who happen to tip over their boat or raft. People have rafted, and wade fished this river the past few years during the low flows could be caught off guard by the increased depth and speed of the river, which could lead to more serious accidents.

Thank you for considering these comments. Please respond to the questions which are underlined.

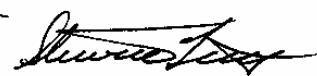
Sincerely,



Chad Reed  
Commission Chair



Craig Collett  
Commissioner



Stewart Leith  
Commissioner

*Attachment #1*

Summer (30 hours) vs Fall (10 hours)								
	Guided Launches	Guided Clients	Public Trips	Guided Public Launches	Guided Public People	Scenic Public Trips	Tell Stories	Shore Floating
April	424	798	45	1,195	2,756	2,675	18	187
May	777	1,533	70	1,394	4,101	3,595	169	290
June	883	1,705	50	2,093	7,219	3,535	3,232	583
July	466	938	81	2,525	13,726	2,468	10,641	701
August	396	767	33	1,614	7,898	1,668	5,757	333
September	512	1,016	32	909	2,855	1,654	855	151
October								
<b>TOTAL</b>	<b>3,458</b>	<b>6,757</b>	<b>311</b>	<b>9,730</b>	<b>38,555</b>	<b>15,595</b>	<b>20,672</b>	<b>2,245</b>

Little Hole Monthly Total 2004 4/16 to 9/30								
Month	Guided Launches	Guided Clients	Public Trips	Public Launches	Guided Public People	Scenic Public Trips	Tell Stories	Shore Floating
April	51	103	4	41	1,865	1,841	18	13
May	122	266	6	70	2,716	2,556	116	53
June	343	672	5	56	3,422	2,997	367	58
July	154	297	12	67	4,041	2,223	1,789	29
August	65	120	8	25	2,709	1,395	1,284	30
September	85	183	4	33	1,785	1,385	379	21
October								
<b>TOTAL</b>	<b>820</b>	<b>1,641</b>	<b>39</b>	<b>292</b>	<b>16,538</b>	<b>12,397</b>	<b>3,953</b>	<b>204</b>

Combined Total	4,278	8,398	350	10,022	55,093	27,992	24,625	2,449
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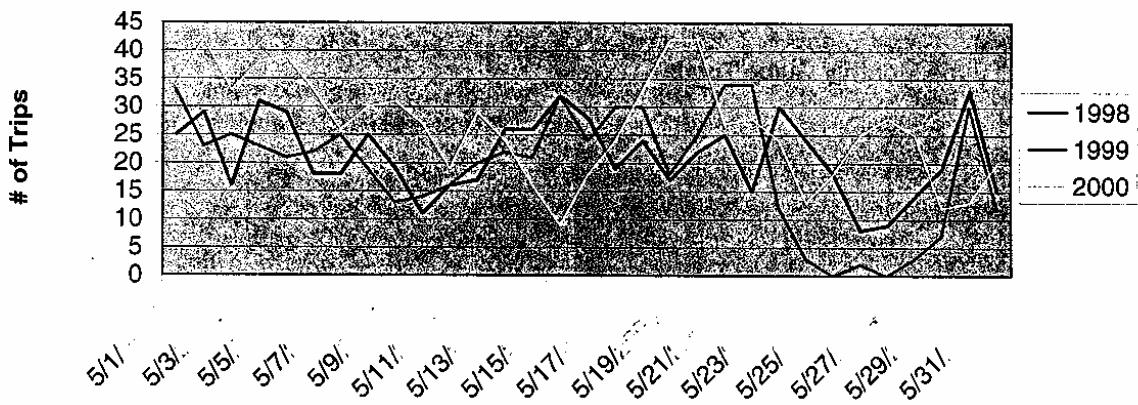
Booths were Staffed for six hours a day Monday through Thursday

Booths were Staffed for ten hours a day Friday through Sunday

*MAY AVERAGE GUIDE LAUNCHES 30/DAY  
 = ONE AVERAGE GUIDE (AVERAGE 40/DAY)*

	May-98	May-99	May-00		Jun-98	Jun-99	Jun-00	
Date	# of Trips	# of Trips	# Of Trips		Date	# of Trips	# of Trips	
1-May	25	33	34		1-Jun	24	12	23
2-May	29	23	42		2-Jun	16	12	30
3-May	16	26	33		3-Jun	16	17	32
4-May	31	23	38		4-Jun	18	11	23
5-May	29	21	39		5-Jun	27	23	26
6-May	18	22	33		6-Jun	24	15	28
7-May	18	25	26		7-Jun	20	17	27
8-May	25	19	30		8-Jun	27	9	37
9-May	19	13	31		9-Jun	24	11	37
10-May	11	14	27		10-Jun	27	27	25
11-May	16	16	19		11-Jun	22	7	14
12-May	17	20	29		12-Jun	19	10	36
13-May	26	22	24		13-Jun	30	15	31
14-May	26	21	16		14-Jun	28	21	31
15-May	32	32	9		15-Jun	30	24	33
16-May	28	24	18		16-Jun	15	20	39
17-May	19	30	24		17-Jun	15	13	26
18-May	24	30	33		18-Jun	21	21	17
19-May	17	18	42		19-Jun	30	19	24
20-May	22	25	42		20-Jun	30	16	29
21-May	25	34	27		21-Jun	19	22	32
22-May	15	34	28		22-Jun	25	20	25
23-May	30	12	24		23-Jun	30	15	39
24-May	24	3	13		24-Jun	25	28	27
25-May	18	0	18		25-Jun	20	38	22
26-May	8	2	25		26-Jun	26	29	23
27-May	9	0	28		27-Jun	24	23	22
28-May	14	3	25		28-Jun	17	25	14
29-May	19	7	12		29-Jun	20	24	13
30-May	33	30	13		30-Jun	21	25	11
31-May	15	12	20					
<b>TOTAL</b>	<b>658</b>	<b>593</b>	<b>822</b>		<b>TOTAL</b>	<b>690</b>	<b>569</b>	<b>796</b>

### May Guide Trips 1998-2000



KEVIN CLEAG ASSISTANT RIVER MAHAWIL U.S.F.S.  
FLAMING COAL RANGER DISTRICT.

Attachment #2

*Attachment # 3***STATE OF UTAH**  
OFFICE OF THE ATTORNEY GENERAL**MARK L. SHURTLEFF**  
ATTORNEY GENERALRAYMOND A. HINTZ  
Chief DeputyKIRK TORRENSON  
Chief Deputy

VIA FAX (801-379-1159)

November 15, 2004

Peter Crookston  
Flaming Gorge EIS Manager  
Bureau of Reclamation  
Provo Area Office  
302 East 1860 South  
Provo, Utah 84606-7317

Re: Operation of Flaming Gorge Dam Draft Environmental Impact Statement  
August, 2004

Dear Mr. Crookston:

I write at the request and authorization of the Daggett County Commission to comment on Daggett County's behalf regarding the above-referenced Draft EIS.

As explained more fully in Daggett County's own comments, the Draft EIS preferred alternative aims to release water from the dam at such a high volume, over such a lengthy amount of time, and at such a time during the year, that the release will adversely affect the commercial and private use of the Green River and hence devastate the businesses of approximately 13 commercial river and fishing guide and outfitting companies, whose income depends almost entirely on their customers' experience on the Green River beneath the dam at a time when the preferred alternative will almost entirely negate fishing and other experiences due to high water volume. Most of the owners and employees of the companies threatened by this action are local citizens of Daggett County, and the local economy stands to suffer if these businesses are ruined.

The purpose of this letter is to advise you on behalf of Daggett County, that these river guide companies whose employment and revenues are so important to Daggett County's

Peter Crookston  
Flaming Gorge EIS Manager  
Bureau of Reclamation  
November 15, 2004  
Page 2

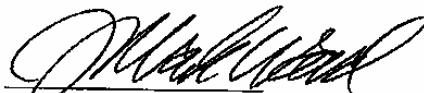
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economy, intend to pursue a Court of Claims action under the Tucker Act, 28 U.S.C. § 1491, to recover compensation for economic loss caused by the actions of the preferred alternative. The United States Court of Appeals for the Tenth Circuit in *Gordon v. Norton*, 322 F. 3d 1213 (10<sup>th</sup> Cir. 2003), recognized that a Tucker Act remedy is available for loss of business occasioned by a federal action related to species preservation.

Please note also that Daggett County reserves the right to pursue Tucker Act and other claims for any other loss or damage that may result from the actions contemplated under the preferred alternative, including but not limited to any damage that high river flows may cause to a bridge on an RS 2477 Daggett County road that crosses the Green River below the dam.

Sincerely,

MARK L. SHURTLEFF  
UTAH ATTORNEY GENERAL



J. Mark Ward  
Assistant Attorney General  
Public Lands Section

cc. Utah Association of Counties  
Daggett County Commission  
Uintah Basin Association of Governments

ATTACHMENT 4

<<Wed, 10 Nov 2004 09:14:12 -0700>>

Date: Tue, 09 Nov 2004 16:36:28 -0700

From: "Michael Hanni" <mhani@utah.gov>

WORK FORCE SERVICES

To: <braymond@daggett.state.ut.us>

EAST TERR REGION

Subject: Re: Economic Development

Brian,

Funny you should ask, I just ran those numbers yesterday.

Non-farm employment Totals for Daggett County (2004):

Jan	349	7.7% (% Growth over the same month last year.)
Feb	345	3.6%
Mar	392	9.2%
Apr	491	13.9%
May	513	4.1%
Jun	550	2.8%

While these employment numbers are much better than those of last year,  
they are slightly lower than the numbers for 2002:

Jan	355	18.3%
Feb	340	15.3%
Mar	347	5.2%
Apr	460	14.1%
May	506	5.2%
Jun	567	6.2%
Jul	563	4.1%
Aug	545	1.1%
Sep	525	1.7%
Oct	473	9.2%
Nov	448	10.3%
Dec	398	13.4%

80 JOBS (OAT  
1690 of TOTAL Employment

Unfortunately, there isn't enough employment in Dutch John that I could give you specific numbers. I'm bound by privacy laws to not disclose data for an industry in an area that has less than 3 businesses, or where one firm makes up the vast majority of the employment in that sector.

What is the impact of a higher river? Does it hurt fishing, or? Sorry, I didn't know they were considering this.

Cheers,

*Attachment 4T*

Page 1 of 2

GROSS TAXABLE SALES BY COUNTY AND BY MAJOR INDUSTRY  
CALENDAR YEAR 1999 THROUGH 2003

COUNTY=DAGGETT						
OBS	SICMAJOR	SALES 1999	SALES 2000	SALES 2001	SALES 2002	SALES 2003
120	MINING (1011-1499)	\$110,756	\$49,755	\$66,294	\$300,050	
121	CONSTRUCTION (1521-1799)	\$16,592	\$18,907	\$25,995	\$176,797	
122	MANUFACTURING (2011-3999)	\$226,976	\$243,126	\$340,041	\$653,057	
123	TRANSPORTATION (4011-4789)	\$554,234	\$511,493	\$626,233	\$1,184,342	
124	COMMUNICATIONS (4812-4899)	\$143,948	\$427,353	\$1,191,690	\$895,004	
125	ELECTRIC & GAS (4911-4971)	\$174,503	\$36,711	\$166,873	\$1,035,553	
126	WHOLESALE-DURABLE GDS (5012-5099)	\$79,001	\$48,121	\$94,230	\$97,164	
127	WHOLESALE-NONDURABLES (5111-5199)				\$97,540	
128	RETAIL-BLDNG & GARDEN (5211-5271)	\$24,286	\$24,499			
129	RETAIL-GEN MERCHNDSE (5311-5399)	\$144,936	\$120,429	\$634,589	\$152,220	
130	RETAIL-FOOD STORES (5411-5499)	\$49,341	\$583,666	\$736,423	\$1,559,796	
131	RETAIL-MOTOR VEHICLES (5511-5599)	\$23,568	\$21,299	\$8,487	\$4,655	
132	RETAIL-APPAREL&ACCESSRY (5611-5699)	\$10,752	\$11,286	\$5,670	\$15,966	
133	RETAIL-FURNITURE (5712-5736)					
134	RETAIL-EATING&DRINKNG (5812-5826)					
135	RETAIL-MISCELLANEOUS (5912-5999)	\$248,666	\$241,961	\$302,523	\$172,960	
136	FIN., INS. & REALESTATE (6011-6799)	\$30,815	\$116,589	\$35,677	\$54,744	
137	SERVICES-HOTEL&LODGING (7011-7041)	\$3,779,233	\$4,082,927	\$2,727,582	\$2,667,262	
138	SERVICES-PERSONAL (7211-7299)				\$2,041	
139	SERVICES-BUSINESS (7311-7389)	\$425,747	\$434,225	\$536,937	\$404,546	
140	SERVICES-AUTO&REPAIR (7513-7699)	\$390,941	\$173,090	\$68,667	\$64,055	
141	SERVICES-AMUSEMNT&REC (7812-7999)	\$690,620	\$1,112,665	\$1,327,694	\$30,754	
142	SERVICES-EDUCATION (8111-8999)					
143	PUBLIC ADMINISTRATION (9111-9721)	\$24,595				
144	PRIVATE MOTOR VEHICLE SALES	\$704,550	\$1,068,012	\$1,096,143	\$1,038,807	
145	OCASSIONAL RETAIL SALES	\$819		\$731	\$19,630	
146	NONDISCLOSABLE \ NONCLASSIFIABLE	\$2,279,074	\$4,125,253	\$2,844,226	\$3,076,797	
147	PRIOR-PERIOD PAYMENTS & REFONDS	\$529,967	\$-149,393	\$1,117,361	\$1,044,850	
COUNTY		\$11,083,920	\$13,701,974	\$14,635,105	\$14,748,590	

1.8 MILLION

12% of Total Sales.

ATTACHMENT # 6

Dear Daggett County Commissioners;

Should the Bureau of Reclamation choose to adopt the Action Alternative flows, our loss would be substantial. Old Moe Guide Service is our major source of income.

If these flows take place in the spring, May and June, as they have in the past, our losses could be as many as 6 boats per day at \$375 per boat or \$2250 per day. This would mean 6 guide jobs and 3 shuttle driver jobs. If this were to happen for any length of time, it would pretty much put us out of business. We would be forced to sell our home in Dutch John, if we could, and leave the area after being in business here for 25 years.

Thank you,

Terry & Gayle Collier  
Old Moe Guide Service

---

## **1. DAGGETT COUNTY, STATE OF UTAH**

### **1a**

Reclamation extended invitations to the States of Colorado, Utah, and Wyoming with the understanding that the States would coordinate with potentially affected counties and represent their concerns. Of the three States, only the State of Utah wished to be a cooperating agency. In fact, Reclamation notes that the Utah Attorney General has commented on the draft EIS on behalf of Daggett County. Nevertheless, Reclamation would have welcomed any county as a cooperating agency, but no requests for such were received from any counties.

### **1b**

NEPA analysis was not undertaken to determine the effects of the 1992 Biological Opinion. The changes in operations prior to and including 1992 were considered to be within the scope and authority of existing operations. This EIS originated with commitments to the public to undertake NEPA analysis for both the 1992 operational changes stemming from the 1992 Biological Opinion and the 2000 Flow and Temperature Recommendations.

### **1c**

Reclamation agrees with this comment. The EIS text has been corrected in section 3.13.2.

### **1d**

The text has been corrected in the final EIS.

### **1e**

Changes in employment and labor income for the Action Alternative for the three-county area of Daggett, Uintah, and Sweetwater as compared to the No Action Alternative under average, wet, and dry conditions is presented in the

socioeconomic section (4.12) of the EIS. The regional economic analysis is driven by changes in recreational expenditures associated with both river and reservoir recreation. Expenditure information was gathered via recreator surveys which did not provide enough detail for county specific analyses. Based on pretests, it was determined that the survey was already complex (given the need to address visitation, valuation, and expenditure information by alternative), and any attempts to gather more detailed data by county would have significantly added to survey complexity possibly jeopardizing survey usefulness. Attempts to allocate expenditures by county would be highly speculative. The analysis does show the overall effect of losses in Green River recreational expenditures being outweighed by gains in Flaming Gorge Reservoir recreational expenditures during wet and dry conditions. While certain recreation oriented businesses (e.g., lodging, restaurants, and gas stations) could be adversely impacted by losses in Green River visitation under the Action Alternative, many of these same businesses (with the exception of river dependent businesses—e.g., river guides) could also benefit from the additional reservoir recreation visitation and expenditures.

### **1f**

The EIS analysis shows no significant socioeconomic differences between the No Action and Action Alternatives, so no reimbursement would be necessary or required. Lack of appropriate county or community specific data precluded analyses to lower levels of detail. Therefore, since this is a three-county aggregated analysis, we cannot say how individual counties, individual communities, or individual businesses would be affected. It is noted that under either alternative, the same uncertainties regarding future hydrology would continue.

**1g**

No. As stated in the EIS (section 4.6), there is no significant difference between the Action and No Action Alternatives for structures (bridges and pipelines) crossing the Green River.

**1h**

Reclamation agrees that as flows vary from the minimum 800-cfs flow to the maximum powerplant flows and occasionally including bypass releases, the velocities will increase as well. However, incremental changes will be made gradually and on an hourly basis. Currently, through efforts of the Flaming Gorge Working Group, the agreed upon ramping rate is established at 800 cfs per hour. This ramping rate has been the agreed upon standard since the Flaming Gorge Working Group meeting of April 11, 1994. It becomes easy to be complacent in the mindset of stable flow regimes during a prolonged drought cycle, but as climate conditions change to more normal hydrologic cycles, rafters and the fishermen are going to have to adapt to the possibility of higher flows in the river under either alternative. If the climactic conditions ever return to a 1983, 1986, or 1992 type hydrologic period, everyone will need to be conscious of the possibility of very high flows in the river. Reclamation will provide notification in advance of projected high release patterns as early as possible to the public through established channels.

Reclamation notes that flows above 4,600 cfs and daily fluctuations have been a normal part of dam operations for over 40 years, and would continue under either the Action or No Action Alternatives.

**Attachments 1 and 2**

Based on 2004 data on guided launches, commercial guide trips drop essentially to zero by the time flows reach 6,500 cfs. In the text of the letter, Daggett County commissioners suggest that flows in excess of 4,600 cfs makes it "almost impossible for commercial guides to get people to fish the river under high flow conditions." These data and statements are consistent with the guide boat fishing visitation analysis in the EIS. The recreator survey, conducted by USDA Forest Service in summer of 2001, suggests that guide boat recreators would stop participating on average at flows of 3,731 cfs. Therefore, the analysis used in the EIS is actually somewhat more restrictive and conservative compared to the high end flow threshold that Daggett County is suggesting.

**Attachment 3**

The State Attorney General's letter-comment noted; see responses to this letter above.

**Attachments 4–6**

Daggett County provides data on Daggett County employment by month for 2002 and first 6 months of 2004. They also provide county data for Gross Taxable Sales by industry for 1999-2002. They then claim 80 jobs would be lost (16% of total employment), and \$1.8 million in sales would be lost (12% of total sales). It was unclear how they came up with these estimates of loss; no basis was provided, and it is impossible to say whether these losses correlate to river flows.



November 17, 2004

Mr. Peter Crookston  
Flaming Gorge EIS Manager, PRO-774  
Bureau of Reclamation, Provo Area Office  
302 East 1860 South  
Provo, UT 84606-7317

Dear Mr. Crookston:

2a  
2b  
2c  
2d

2e  
2f

I would like to address some concerns the Rock Springs Chamber of Commerce Board of Directors have about the recently published Draft Environmental Impact Statement (DEIS) on the operation of the Flaming Gorge Dam. It appears one of the major objectives of the proposed release schedule would be to increase water temperature below the Flaming Gorge Reservoir. With water temperature increasing how will it effect the upstream migration of Northern Pike and what negative effects will this have on the current Trout population? These populations and their associated economic impact are worth millions of dollars to the local economies. Furthermore, what impact will Northern Pike have on the recovery of the endangered species you are trying to enhance?

Another area of critical concern is the distribution of the New Zealand Mud Snail. This non-native invasive species is already present below Flaming Gorge Dam. In your data it is estimated that this species could make up 95% of the invertebrate biomass in the Green River system. The DEIS also states that Trout derive very limited nutritional values from the consumption of the New Zealand Mud Snail. Also, on page 73 of the DEIS it states, "ultimate distribution, densities, and this invasive species effect on the existing aquatic community remains uncertain." I find it inconceivable that the U.S. Fish and Wildlife Service and Bureau of Reclamation would in fact participate in the spread and propagation of an invasive non-native species. What are your plans to mitigate any of the negative outcomes your agency may produce by its action in this matter?

We look forward to your response on this most urgent of issues.

Sincerely,

A handwritten signature in black ink that reads "Jerry Taylor".

Jerry Taylor, Board President  
Rock Springs Chamber of Commerce

A handwritten signature in black ink that reads "David Hanks".

David Hanks, CEO  
Rock Springs Chamber of Commerce

1897 Dewar Drive • P. O. Box 398 • Rock Springs, Wyoming 82902-0398  
Phone: (307) 362-3771 or 1-800-GO-DUNES • Fax: (307) 362-3838  
E-mail: rschamber@sweetwaterfisa.com

---

## **2. ROCK SPRINGS, WYOMING, CHAMBER OF COMMERCE**

### **2a and 2b**

See sections 4.19.4 and 4.21 regarding the role of the Recovery Program in addressing this uncertainty. Additionally, the State of Utah currently has an aggressive and successful northern pike management program in place on the Green River below Flaming Gorge Dam, and the Recovery Program is implementing similar measures in the Yampa River.

### **2c**

Reclamation agrees that the fisheries within the reservoir and river are valuable. That is why analyses of both recreation economic value and regional economic impact were provided in the recreation (4.11) and socioeconomics (4.12) sections in the EIS.

### **2d**

Northern pike have been demonstrated to directly and negatively impact nearly every life stage of endangered fish through predation. However, the State of Utah currently has an aggressive and successful northern pike management program in place on the Green River below Flaming Gorge Dam, and the Recovery Program is implementing and expanding similar measures in the Yampa and Colorado Rivers. It is expected that

the Recovery Program will continue to play a significant role in management of nonnative predators such as northern pike in the future under both Action and No Action Alternatives.

### **2e**

The New Zealand mud snail can comprise up to 95% of invertebrate in some aquatic systems, not necessarily the Green River system. See section 4.7.2.1.2, last paragraph.

### **2f**

Reclamation's environmental commitments related to the proposed action are stated in section 4.21 of the EIS. We do not anticipate that the proposed action will result in an increase or spread of the mud snail. After checking with local experts on mud snails in the Green River, we cannot identify any specific mitigation measure that could be implemented, whether or not our action causes an adverse effect. Importation of the New Zealand mudsnail was probably human-caused, and thus prevention measures identified to date pertain to this type of vector. Little (if any) research exists on effects of large-scale perturbations such as dam releases on snail biology. Reclamation encourages all anglers to thoroughly dry or freeze their waders after fishing in one locality to help reduce the spread.



## Town of Manila

P.O. Box 189  
Manila, UT 84046-0189

Phone: (435) 784-3143  
Fax: (435) 784-3356

**Mayor**  
*Chuck Dickison*

**Town Clerk**  
*Judy Archibald*

3a

**Deputy Clerk**  
*Andrea Scott*

3b

**Council  
Members**  
*Ida Marie Twitchell  
Lanita Steinaker  
Dellene Alvis  
Connie Reed*

11/10/04

Mr. Peter Crookston  
Flaming Gorge Environmental Impact Statement Manager  
PRO-774 Bureau of Reclamation  
Provo Area Office  
302 East 1850 South  
Provo, Utah

Dear Mr. Crookston,

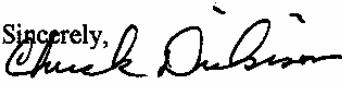
The following will address an area of significant concern for Manila. It will also provide a statement of support for the Daggett County Commission and a concern for the economic welfare of Dutch John. It will ask for your reconsideration in the matter.

The Manila Council and this Mayor share a deep concern regarding the substantial economic impact imposed with the facilitation of the EIS for the operation of Flaming Gorge Dam. Those persons who depend upon the fishing and rafting revenue for their existence will lose significant income. Daggett County estimates the loss to that industry and the support services to be in the hundreds of thousands of dollars. Manila will share in that revenue loss to a smaller degree with the impact to tourism.

Surely, the motivation to consider the high water releases cannot equate to the economic losses to a county population already impacted by the government ownership of 90 % of the land. This does not address the certain impact to infrastructure to be sustained below the dam by the high releases. The consequences of such a decision should be a significant part of the process.

In conclusion, the Manila government body and certainly the local constituents willingly provide their support to the request for a decision reconsideration. Subsequently, we respectfully ask that the Bureau of Reclamation consider the legitimate concerns expressed by a significant segment of the affected population.

Cc: Daggett Commission

Sincerely,  
  
Chuck Dickison, Mayor

---

### **3. TOWN OF MANILA, UTAH**

#### **3a**

Reclamation acknowledges and has explained in the EIS that the Action Alternative could create adverse impacts for certain Green River recreation activities and businesses (e.g., commercial operators), particularly under wet and dry conditions as compared to the No Action Alternative. The lack of appropriate county specific expenditure data precluded the development of impacts solely for Daggett County. In anticipation of this data gap, a survey was conducted during the summer of 2001 to specifically identify economic impacts to commercial operators. The results of the survey were presented in a separate subsection under socioeconomics. The EIS analyzed both river and reservoir recreation. While we cannot describe potential impacts specifically for Dutch John, Manila, or even Daggett County due to lack of data, from an overall perspective, it should be noted that expenditure gains on the reservoir

appeared to outweigh losses on the river. Therefore, it is possible that under the Action Alternative, certain recreation oriented businesses (e.g., lodging, restaurants, gas stations) will be adversely impacted by reductions in Green River recreation visitation, but many of these same businesses (with the exception of river dependent businesses—e.g., river guides) could also benefit from the additional reservoir recreation visitation and expenditures.

#### **3b**

As stated in the EIS (Section 4.6, “Land Use”) there is no significant difference between the Action and No Action Alternatives for structures (bridges and pipelines) crossing the Green River. In wet years, there may be greater effects under the Action Alternative for campgrounds, boat ramps, and access roads.

**TriCounty Health Department**  
www.tricountyhealth.com

**Joseph B. Shaffer, M.A., M.B.A., E.H.S.**  
Director/Health Officer

Uintah County Office  
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TriCounty  
Dental Clinic  
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Vernal, Utah 84078  
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November 9, 2004

Mr. Peter Crookston,  
Flaming Gorge EIS Manager, PRO-774  
Bureau of Reclamation  
Provo Area Office  
302 East 1860 South  
Provo, Utah 84606-7317

RE: Operation of Flaming Gorge Dam Draft EIS

Dear Mr. Crookston,

- 4a Flooding in the Green River bottomlands region presents enormous acreages of productive mosquito habitat. Millions of mosquitoes per acre can be produced and many thousand of acres are involved. Of great concern is the production of mosquitoes which carry West Nile virus. The almost level contour of much of the Green River bottomland scenery with even minor increases in river elevation at high water can translate into huge additional acreages of overflow mosquito habitat. We have had documented cases of West Nile virus in Uintah County and feel we need to do all we can to prevent it. There is no question that more water in the Green River bottomlands means more mosquitoes. More mosquitoes means more mosquito control and that can be very expensive to perfectly time and repeat applications. At this time the money and applications are sufficient for the number of mosquitoes in the county. Additional applications would be more expensive and would result in an increase in property tax. If the Action Alternative is implemented, the taxpayers of Uintah County should be awarded full and fair federal compensation for higher mosquito control expenses. However, financial compensation still does not protect Uintah County citizens from the influx of mosquitoes and potential diseases.
- 4b

Thank you for the opportunity to comment on the Operation of Flaming Gorge Dam Draft EIS.

Respectfully,

  
Joseph B. Shaffer, M.A., M.B.A., E.H.S.  
Director/Health Officer

BOARD OF HEALTH MEMBERS

Jim Abegglen • Stewart Leith • Larry Ross • John Hullinger • Richard Jolley, D.D.S. • Lynn Morrill, D.O. • Tod Tesar • Dan Goodkind P.H.D. • Ellen Rawlings

---

## **4. TRICOUNTY HEALTH DEPARTMENT**

### **4a**

Comment noted

### **4b**

The EIS acknowledges (section 4.13.3.) that the proposed action will increase mosquito habitat to the greatest extent in Reach 1, and to a lesser extent in Reach 2, which includes the town of Jensen as well as Uintah County. Based on our analysis,

Reclamation believes that the increased risk of diseases such as West Nile virus, compared to other potential vectors for the disease, including irrigation and standing water on private property closer to population centers, is so small that it is insignificant. We do not anticipate a linkage between Reclamation's proposed action and an increased threat from West Nile virus or other mosquito-borne diseases.

# UINTAH COUNTY



STATE OF UTAH  
*Our past is the nation's future*

November 15, 2004

COMMISSIONERS:  
David J. Haslem  
Jim Abegglen  
Michael J. McKee  
ASSESSOR - Gayla Casper  
ATTORNEY - JoAnn Stringham  
CLERK-AUDITOR - Michael W. Wilkins  
RECODER - Randy J. Simmons  
TREASURER - Donna Richens  
SHERIFF - Rick Hawkins  
SURVEYOR - Robert Kay

Mr. Peter Crookston  
Flaming Gorge EIS Manager, PRO-774  
Bureau of Reclamation  
Provo Area Office  
302 East 1860 South  
Provo, Utah 84606-7317

## RE: Operation of Flaming Gorge Dam Draft EIS

Dear Mr. Crookston:

Uintah County takes a strong stance in opposition to the Bureau of Reclamation's proposed action of increased flows of water from the Flaming Gorge Dam.

The following concerns need to be considered and addressed:

- 5a** **Uintah County Plan:** Protection of private property is a crucial element of the Uintah County Plan, and any damage caused to agricultural property would not be consistent with the plan. The release of extra water when the river is at its fullest would purposely flood shallow ground on private agricultural property.
- 5b** **Noxious Weeds:** The flood water would carry and spread white top, Russian olives and other noxious weeds throughout the agriculture property reducing crop yields, thus income, and it would create a financial burden on the land owners and the county to control the weeds.
- 5c** **Flood Control:** Flood control is not addressed in this EIS. The action alternative predicts an increase in frequency of flooding in order to assist in the recovery of endangered fish. In section S.16.5 "Uncertainties Associated with Flood Plain Inundation", reference is made to strategies that could meet the needs of the endangered fish without the extreme flooding predicted in wet years under the Action Alternative. These strategies should have been evaluated as an alternative.
- 5d** The Action Alternative should address how to modify flow regimes in order to avoid exceeding harmful maximum flows within the safety limitation of the Dam. Higher flows and increased sedimentation suggested in the Action Alternative would cause damage to irrigation pumps and irrigation systems. This damage would include the equipment, the cost of installation and the loss of crop production caused by the inability to deliver water to upland crops during the time it takes to repair flood caused damaged irrigation equipment. The crop damage could extend for several years if perennial crops like alfalfa die before irrigation can be restored. Flooding and prolonged
- 5e**
- 5f**

Page 1 of 3

COUNTY BUILDING • 152 EAST 100 NORTH • VERNAL UTAH 84078

standing water will kill crops, especially long term crops, which are expensive to replant. Standing water and flooding leaves land incompatible for agricultural use.

- 5g Damage to irrigation pumps and equipment could be minimized if adequate warning is given to farmers before peak releases are made. However, little can be done if excessive flooding occurs.

Some of the private lands are diked, which means that flooding elevation would have to be raised to go over the dike and flood the ground.

- 5h It is important to the citizens of Uintah County to preserve their culture. Grazing and livestock are part of this culture that has been in the Basin for over 150 years. Flooding these lands would destroy this culture, use and enjoyment, and would be in conflict with the Uintah County Plan.

- Release:** The timing of the peak release is a concern. (S-30, table S-7) The releases from Flaming Gorge Dam are based on the peak flow of the Yampa River, however the peaks of the Yampa River and the Green River do not coincide. When the Green River is released based on the Yampa peak, this will result in sediment deposits over the spawning area. These impacts must be analyzed and reported in the document. Releasing water at peak time would destroy the trails, campground and parking lot located below the dam.

- 5i **Mosquitos:** Flooding in the Green River bottomlands region presents enormous acreage of productive mosquito habitat. Millions of mosquitos per acre can be produced and many thousand of acres are involved. Of great concern is the production of mosquitoes which carry West Nile Virus. The almost level contour of much of the Green River bottomland topography with even minor increases in river elevation at high water can translate into huge additional acreage of overflow mosquito habitat.

Mosquitos have a substantial impact on livestock by causing weight loss and a deterioration of the general condition of the animals. We have had documented cases of West Nile Virus in Uintah County and feel we need to do all we can to prevent it. There is no question that more water in the Green River bottomlands means more mosquitos. More mosquitos means more mosquito control and that can be very expensive to perfectly time and repeat applications. The land owners will incur a cost associated with mosquito control since mosquitos can only be controlled and not eliminated.

If mosquitos are not controlled, this would prevent enjoyment and use of personal property which is a property right, thus, this could result in a take of this right.

- 5j The Uintah Mosquito Abatement District is funded by local property taxes. When flooding occurs, funds are inadequate to control mosquitos. Additional applications would be more expensive and would result in an increase in property taxes. Uintah County citizens should not be the ones to pay for the Recovery Program for Endangered Fish species. If the Action Alternative is implemented, the taxpayers of Uintah County should be awarded full and fair federal compensation for higher mosquito control expenses. However, financial compensation still does not protect Uintah County citizens from the influx of mosquitos and potential diseases. Now that West Nile Virus has been found in Uintah County, we have to deal aggressively to prevent further incidences. Human life is

by far the most important issue, and loss of life is not worth the possible marginal benefit of increased flow rates.

- 5m **Page 2, 1.2 Lead and Cooperative Agency.** A review of this section confirms the County's position that this Draft Environmental Impact Statement was prepared without the participation of Uintah County as cooperator. The Code of Federal Regulations 40, 1501.6 Cooperating Agencies states, "The lead agency shall: (1) request the participation of each cooperating agency in the NEPA process at the earliest possible time." We object to not being included and not having cooperating status to help develop this plan.

Many of the impacts associated with this proposal are on land within the jurisdiction of Uintah County which has governmental powers over such lands and a responsibility to protect the health and welfare of the people impacted, as well as the land and it's associated economics.

- 5n **Page 117, 3.13.2 Public Safety Considerations for the Green River.** At the end of the first paragraph it states, "The river has exceeded 18,000 cfs 5 times in the past 10 years and 10 times in the past 20 years." Data available to us indicates that the river has not exceeded a flow of 12,300 cfs in the past 42 years. The analysis is flawed and the entire project needs to be re-analyzed, as it has tremendous implications with this flawed data.

Uintah County supports the "No Action Alternative".

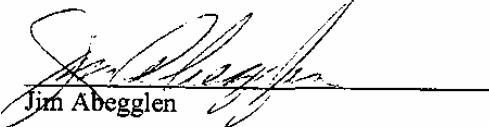
Uintah County has no further comments at this time but reserves the right to comment later, if warranted.

Sincerely,

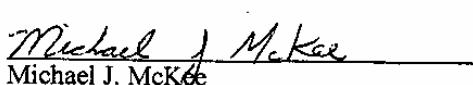
UINTAH COUNTY COMMISSION



David J. Haslem, Chairman



Jim Abegglen



Michael J. McKee

cc: Public Lands Committee

---

## **5. UNTAH COUNTY, STATE OF UTAH**

### **5a**

Reclamation is not responsible for damages to improvements or property in the flood plain. Any improvements have always been made by property owners at their own risk. Flood plain inundation has always occurred along the Green River, though less frequently since Flaming Gorge Dam was built. Nevertheless, though the frequency has declined since the dam has been in place, there has always remained the potential for significant flood plain inundation in wet years, and that potential will continue under either alternative. Section 4.5 of the EIS concludes that in comparing the Action and No Action Alternatives, there is not a significant difference for crop losses due to inundation.

### **5b**

Since the arrival of invasive species in the Unitah Basin (tamarisk was probably present by the 1930s) flooding has facilitated their spread. Flood plain inundation has always occurred along the Green River, though less frequently since Flaming Gorge Dam was built. Nevertheless, though the frequency has declined since the dam has been in place, there has always remained the potential for significant flood plain inundation in wet years and for the spread of invasive species. That potential will continue under either alternative.

### **5c**

While flood control is an authorized purpose of CRSP, there are no flood control benefits identified for Flaming Gorge. Therefore, there are no restrictive operational rules imposed by the Corps of Engineers for flood control. However,

floodplain inundation has occurred less frequently since Flaming Gorge Dam was built.

### **5d**

The Action Alternative does not include releases that exceed the ability of the dam to safely make releases. All proposed releases are within the historic range of releases from the dam. Please see section 2.5.1 in the EIS.

### **5e and 5g**

Reclamation is not responsible for damages to improvements or property in the flood plain. Any improvements have always been made by property owners at their own risk. Flood plain inundation has always occurred along the Green River, though less frequently since Flaming Gorge Dam was built. Nevertheless, though the frequency has declined since the dam has been in place, there has always remained the potential for significant flood plain inundation in wet years, and that potential will continue under either alternative. As part of its operation of Flaming Gorge Dam, Reclamation has in the past and will continue to provide public notification when flows are expected to increase, to enable property owners along the river to remove or secure equipment and livestock.

### **5f**

These issues were analyzed and discussed in the EIS. Section 4.5 of the EIS concludes that in comparing the Action and No Action Alternatives, there is not a significant difference for crop losses due to inundation. Reclamation is not responsible for damages to improvements or property in the flood plain. Any improvements have always been made by property owners at their own risk. Flood plain inundation has always occurred along the Green River, though less

frequently since Flaming Gorge Dam was built. Nevertheless, though the frequency has declined since the dam has been in place, there has always remained the potential for significant flood plain inundation in wet years, and that potential will continue under either alternative.

### **5h**

Flood plain inundation has occurred along the Green River in the past, though less frequently since Flaming Gorge Dam was built. There has always remained the potential for significant flood plain inundation in wet years, and that potential will continue under either alternative. The presence of the dam for over 40 years has indeed served to moderate flooding. However, this was never intended to mean that the flood plain would remain permanently dry. It means only that there is increased ability to moderate potentially catastrophic flows. Since the dam was built, there have been a number of wet years where high flows have occurred, such as 1983. Whether or not the proposed action is implemented, high flows would be expected in the future, and none of the high flow targets in the Action Alternative exceed the very high natural flows that have occurred historically.

As part of its operation of Flaming Gorge Dam, Reclamation has in the past and will under either alternative continue to provide public notification when flows are expected to increase, to enable property owners along the river to remove or secure equipment and livestock.

### **5i**

See sections 4.19, 4.20 and 4.21. The 2000 Flow and Temperature Recommendations are intended to aid in recovery of four endangered fish species by restoring a more natural flow regime to the Green River. The authors of the 2000 Flow and Temperature Recommendations recognized that certain aspects of the

flows may affect certain species differently than others. One objective of spring peak flows is to entrain razorback sucker larvae into flood plain depressions, so it is possible that these peak flows would normally occur after spawning activity. Decisions regarding the timing, duration, and magnitude of peak flows within a given year under the Action Alternative would be made with input from the Technical Working Group, which will evaluate criteria listed in table 2-5 when making recommendations. This allows opportunities to refine flow attributes based on an adaptive management process.

### **5j**

Reclamation is not responsible for damages to improvements or property in the flood plain. Any improvements below the high water mark have always been made by property owners at their own risk. Please see response to 5a and 5h above.

### **5k and 5l**

The EIS acknowledges (section 4.13.3.) that the proposed action will increase mosquito habitat to the greatest extent in Reach 1 and to a lesser extent in Reach 2, which includes the town of Jensen as well as Uintah County. Based on our analysis, Reclamation believes that the increased risk of diseases such as West Nile virus, compared to other potential vectors for the disease, including irrigation and standing water on private property closer to population centers, is so small that it is insignificant. We do not anticipate a linkage between Reclamation's proposed action and a threat from West Nile virus or other mosquito-borne diseases.

### **5m**

Reclamation extended invitations to the States of Colorado, Utah, and Wyoming with the understanding that the states would coordinate with potentially affected counties and represent their concerns. Of

the three States, only the State of Utah wished to be a cooperating agency. Nevertheless, Reclamation would have welcomed any county as a cooperating agency, but no requests for such were received from any counties.

**5n**

Reclamation agrees with this comment. The EIS text has been corrected.

## Uintah Mosquito Abatement District

Director  
Steven V. Romney

P.O. Box 983  
Vernal, Utah 84078

Phone: 435-789-4105  
Fax: 435-789-1891

Peter Crookston  
Flaming Gorge EIS Manager  
PRO-774 Bureau of Reclamation, Provo Area Office  
302 East 1860 South  
Provo, Utah 84606-7317

November 8, 2004

Dear Mr. Crookston:

This for the Public Record commentary addresses the "Operation of Flaming Gorge Dam Environmental Impact Statement" as applies to Green River Bottomlands Reach 2 of Project Area 1.

When seasonally flooded with river sub-up or overflow water the Green River bottomlands region, as referenced, is transformed into enormous acreages of some of the most productive aquatic mosquito habitat in North America. This is a fully documented biological fact. Literally **millions** of mosquitoes per acre can be produced. Many **thousands** of acres of such habitat are involved. Some floodwater mosquito species can migrate in staggering numbers as far as 20 miles from their bottomlands points of origin and are a very real threat to public health, veterinary health, ranching and agriculture, outdoor recreation, outdoor commerce and the economically vital tourist industry in Uintah County, Utah.

Of new and deepest concern is the ongoing potential for the large scale river bottomlands production of the mosquito species, Culex tarsalis, an extremely abundant and superbly competent local vector of West Nile Virus (WNV). Ecologically, the additional mosquito habitat to be activated with the proposed artificially enhanced and prolonged flooding of the Green River periphery presents a reproductive bonanza for this now critically important species. Due to the flattened, almost level contour of much of the Green River bottomlands topography, even "minor" increases in river elevation at high water can translate into huge additional acreages of prime mosquito habitat.

Since the first documentation of the presence of WNV in the Western Hemisphere (New York City, 1999), the virus has rapidly spread westward to encompass 48 U.S. States and the District of Columbia. In 2003, the first human and equine WNV infections ever recorded in Utah were acquired in Uintah County. The same year, the state of Colorado suffered an incredible 2,947 human WNV infections. Sixty-three were fatal, while many more proved to be permanently debilitating. With the ongoing westward expansion of WNV, "only" ten human infections were recorded for Utah in 2004.

The widest spectrum of critical yet often subtle environmental conditions which must fall into place in order to trigger a major WNV event are not yet sufficiently understood to provide an absolute and consistently reliable predictive scenario for the future. Notwithstanding, a **hard biological fact** now confronts our citizens: West Nile Virus is a new, extremely dangerous and thoroughly established **permanent resident** of Uintah County, Utah. There is very sound medical justification for acting in accordance with the distinct possibility that the 2005 and future seasons will prove pivotal in fully defining the long term public health and economic impact of that pathogen. At present our County is in every way unequivocally "primed" for what may well prove to be a major epidemic event. The greater dynamics of WNV amplification in the environment with its ultimate expression in human and

other vertebrate populations can though, with certainty, be profoundly influenced by the timely **prevention** and effective **control** of vector mosquito populations.

Large scale river bottomlands mosquito control is extremely expensive and is, for innumerable logistical and biological reasons, immensely challenging. It demands perfectly timed and repeated low level aerial applications of biological control larvicides to flooded mosquito sources randomly dispersed throughout some 50 linear miles of remote, often densely vegetated nearly impenetrable river periphery. Perfect mosquito control in every instance is essentially impossible.

- 6a The Uintah Mosquito Abatement District is funded with local property taxes. Should Uintah County taxpayers be forced to pay for the critically essential control of the soon to be much larger and **medically important** mosquito populations when their otherwise simple **prevention** is wholly dependent on the whim of the Recovery Program For Endangered Fish Species? Should the same citizens then bear the inevitable medical and economic consequences exacted upon them by such environmental policy decisions? Succinctly stated, artificially sustained, higher than would otherwise seasonally occur Green River flows equal **far more mosquitoes**, some of which the next time around will be carrying WNV with the capacity to kill human beings, equines and a diversity of avian species.

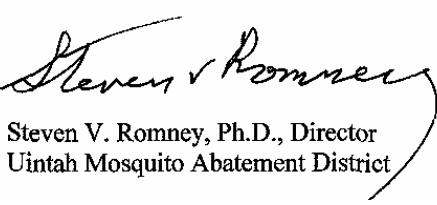
- 6b There is little doubt that the Flaming Gorge Dam "Action Alternative" will be implemented. The Recovery Program with its ongoing and inexorable agenda is thoroughly entrenched and supported by far reaching legal powers and huge sums in budgetary resources. Accordingly, I am formally requesting that immediate preparatory steps be taken wherein by mutual negotiation the Uintah Mosquito Abatement District (and thus the taxpayers of Uintah County) at the least be awarded full and "fair" federal compensation (such funds **can** be found) for those additional and far higher public health mosquito control expenses which will inevitably result from the policy implementation above. Such totally justified federal supplemental monies would, at least to some limited extent I believe, serve to elevate our citizens above the status of hapless victims in this matter. From the mosquito's perspective, federal support in exchange for Uintah County's blood is no doubt a good deal.

- 6c Consider this: Do the conjecture based Recovery Program research benefits to be achieved by the "let's see what happens if we flood the river bottomlands" option in fact outweigh the **for certain** adverse consequences to be exacted upon **us** and other vertebrate species?

I am eager, as the need will surely arise, to vigorously address any questions pertaining to the utter **validity in science** of my observations and deepest concerns, above. **Please** perceive this most urgent statement with every prudent care and consideration.

I thank you sincerely for your valuable time and attention.

Respectfully,

  
Steven V. Romney, Ph.D., Director  
Uintah Mosquito Abatement District

---

## **6. UNTAH MOSQUITO ABATEMENT DISTRICT**

### **6a and 6b**

The EIS acknowledges (section 4.13.3.) that the proposed action will increase mosquito habitat to the greatest extent in Reach 1 and to a lesser extent in Reach 2, which includes the town of Jensen as well as Uintah County. Based on our analysis, Reclamation believes that the increased risk of diseases, such as West Nile virus, compared to other potential vectors for the disease, including irrigation and standing water on private property closer to population centers, is so small that it is insignificant. We do not anticipate a linkage between Reclamation's proposed action and an increased threat from West Nile virus or other mosquito-borne diseases.

Proposed flows are intended to produce a more natural hydrograph, not "an artificially sustained flow." In Reach 2, where the Uintah Mosquito Abatement District sprays, dam operations supplement flows from the Yampa River, to greater or lesser degrees depending on the hydrology of the respective basins.

### **6c**

We do not anticipate adverse consequences to humans if the 2000 Flow and Temperature Recommendations are implemented. The river flood plain is likely to be inundated in wet years under either alternative.

## **WATER USER AGENCIES AND ORGANIZATIONS**

- 1. Central Utah Water Conservancy District**
- 2. Colorado River Energy Distributors Association**
- 3. Colorado River Water Conservation District**
- 4. Duchesne County Water Conservancy District**
- 5. Sweetwater County Conservation District**



## Central Utah Water Conservancy District

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TOLL FREE 1-800-281-7103  
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OFFICERS  
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R. Roscoe Garrett, Vice President  
  
Don A. Christiansen, General Manager  
Secretary/Treasurer

November 15, 2004

Mr. Peter Crookston  
Flaming Gorge Environmental Impact Statement Manager  
PRO-774  
Bureau of Reclamation  
302 East 1860 South  
Provo, Utah 84606-7317

*Sent Via Fax and Mail*

Subject: Draft Environmental Impact Statement (August 2004) – Operation of Flaming Gorge Dam

Dear Mr. Crookston,

Thank you for the opportunity to comment on the August 2004 Draft Environmental Impact Statement for operation of Flaming Gorge Dam. We recognize the importance of Flaming Gorge Dam operations in providing the flexibility in flow and temperature management to protect and assist in recovery of endangered fish populations.

We understand that Flaming Gorge Dam plays an important role in offsetting depletions to the Green River resulting from the operation of federal and non-federal projects in the basin. As stated in Section 1.1, “Modifying the operation of Flaming Gorge Dam will also serve as the RPA, as defined by the ESA, to offset jeopardy to endangered fishes and their critical habitat that could result from the operation of numerous other existing or proposed water development projects in the Upper Colorado River Basin.”

1a

Even though there are numerous references to the Upper Colorado River Endangered Fish Recovery Program (RIP) program, we believe that it is important to emphasize the important role that the Upper Colorado River Endangered Fish Recovery Program (RIP) plays in the work to recover the fish and in allowing water development to continue.

As to proposed or future water development, the Central Utah Water Conservancy District, the Duchesne County Water Conservancy District, and the Uinta Water Conservancy District are working together to study future water demands in the Uinta Basin and ways to meet those demands. Key factors in this regard include change of use of water, development of new tributary water supplies, conservation, and the utilization

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Gary D. Palmer  
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John L. West  
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Boyd Workman

1b of the Flaming Gorge direct flow water rights that have been conveyed from Reclamation  
to State of Utah. The Flaming Gorge water rights will be used in the future as Utah  
continues to develop its share of the Colorado River. This should be recognized in the  
document. Furthermore, the document should recognize, perhaps in Section 4.16.1.1, that  
1c as depletion increases, the role of the RIP will become even more important in meeting  
its objective of recovery of the fishes while providing for new water development.

If you have any questions, please contact Rich Tullis, at 801-226-7122.

Sincerely yours,



Richard L. Tullis, P.E.  
Assistant General Manager

---

## **1. CENTRAL UTAH WATER CONSERVANCY DISTRICT**

### **1a**

Comment noted. See sections 1.4.4 and 4.16.4.1.1 of the EIS regarding the dual role of the Recovery Program in recovering the endangered species while allowing water development to continue.

### **1b**

The possible effects of the proposed action on water rights were analyzed and, as stated in section 1.8.4 of the EIS, there

is no effect to water rights from either the Action or No Action Alternative.

Clarification has been added to section 1.8.4 of the EIS.

### **1c**

As stated in sections 1.4.4 and 4.16.4.1.1 of the EIS, the Recovery Program recognizes future depletions in the Upper Basin States.



## CREDA

### Colorado River Energy Distributors Association

#### ARIZONA

Arizona Municipal Power Users Association

Arizona Power Authority

November 8, 2004

Arizona Power Pooling Association

Irrigation and Electrical Districts  
Association

Navajo Tribal Utility Authority  
(also New Mexico, Utah)

Salt River Project

#### COLORADO

Colorado Springs Utilities

Intermountain Rural Electric Association

Platte River Power Authority

Tri-State Generation & Transmission  
Association, Inc.  
(also Nebraska, Wyoming, New Mexico)

Yampa Valley Electric  
Association, Inc.

#### NEVADA

Colorado River Commission  
of Nevada

Silver State Power Association

#### NEW MEXICO

Farmington Electric Utility System

Los Alamos County

City of Truth or Consequences

#### UTAH

City of Provo

Strawberry Electric Service District

Utah Associated Municipal Power Systems

Utah Municipal Power Agency

#### WYOMING

Wyoming Municipal Power Agency

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**Leslie James**  
Executive Director  
CREDA  
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2a

Mr. Peter Crookston  
Flaming Gorge Environmental Impact Statement Manager  
PRO-774, Bureau of Reclamation, Provo Area Office  
302 East 1860 South  
Provo, UT 84606-7317 email: [fgeis@uc.usbr.gov](mailto:fgeis@uc.usbr.gov)

RE: Operation of Flaming Gorge Dam Draft Environmental Impact Statement (DEIS), September 1, 2004

Dear Mr. Crookston:

The Colorado River Energy Distributors Association (CREDA) offers the following comments on the above-referenced document. These comments should be considered supplementary to the verbal comments provided at the October 13, 2004 public hearing in Salt Lake City, Utah, and to CREDA's August 4, 2000 comments on the Notice of Intent to Prepare a Draft Environmental Impact Statement (June 6, 2000). Fundamentally, the National Environmental Policy Act (NEPA) process must achieve "a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities." 42 U.S.C. Section 4331(b)(5). NEPA requires informed decisions—not ideal decisions.

CREDA is a non-profit organization founded in 1978, whose members are all firm electric service contractors of the Colorado River Storage Project (CRSP). CREDA members serve approximately three million consumers in six western states. As CRSP contractors, CREDA members have a direct interest in this process. CREDA is also represented in the committees of the Upper Colorado River Endangered Fish Recovery Program (RIP), and participated in the development of the Flow and Temperature Recommendations for Endangered Fish in the Green River Downstream of Flaming Gorge Dam (published in September 2000 by the RIP). Lastly, CREDA members Utah Associated Municipal Power Systems and Utah Municipal Power Agency are cooperating agencies in this process.

- I. **General comment about hydropower and drought situation:** The Bureau's power program is the caretaker for some of the Nation's most important electrical resources. Hydropower has been labeled the "most successful form of renewable energy." It provides the only way to "store" electricity (in the form of water) for later use. We are concerned that additional changes in operation of Flaming Gorge will reduce water storage benefits and hydroelectric power supplies as the West suffers from historic droughts and Nation is facing energy shortages and escalating energy costs. In recent years, Utah, and many parts of the West, have reported record-breaking draws on the power grid. 2003 wholesale power prices were at record highs. And demand for electricity is projected to grow substantially over the next two decades. President George W. Bush has directed any agency that takes an action with a "significant adverse effect" on the supply of domestic energy resources to comply with Executive Order No. 13211. The President, in that order, directed the agencies to "appropriately weigh

- and consider the effects of the Federal Government's regulations on the supply, distribution, and use of energy." We urge Reclamation not to operate Flaming Gorge in a way that continues to reduce its 1974 historic generating capacity or its ability to store water for multiple uses. Flaming Gorge should be operated to avoid jeopardy to endangered species while maintaining the congressionally authorized purposes of, and the requirement to produce the "greatest practicable amount of power and energy..." from, the Colorado River Storage Project (CRSP) (Sec. 7, CRSP Act of 1956). It should be noted that nothing in the 1968 CRBPA affects this section of the CRSP. Moreover, the Supreme Court has held that the discussion of alternatives required by NEPA is limited by an agency's statutory purposes.
- 2b 2c II. **Purpose and Need**, 1.1, and 1.4.1, pages 2-4: Why is "the development of water resources" called out specifically as an authorized purpose here and in the transmittal letter? This distinction could lead one to believe that this purpose "trumps" the other authorized purposes (as identified verbatim in S.3.1. Reference is made to the Colorado River Basin Project Act of 1968. However, reference should also be made to section 601(a) of that Act, which expressly provides that nothing in it "shall be construed to alter, amend, repeal, modify, or be in conflict with the provisions of", among other things, the compacts, the treaty with Mexico or the Colorado River Storage Project Act. The section 308 references to fish and wildlife and recreation purposes are "in connection with the project works authorized pursuant to" the 1968 Act. In addition, the language contained in the first paragraph of Section 1.4.1, page 4, implies that endangered fish recovery efforts can "hold hostage" the CRSP Section 7 obligation to produce "the greatest practicable amount of power and energy..." (see comment I.) by impacting water resource development. Endangered fish recovery efforts are the express purview of the RIP, and to impose a standard other than the requirement of Reclamation to "avoid jeopardy" is inconsistent with NEPA and ESA.
- III. **Hydropower**, 2.6.3, pages 41-42: We understand the need to develop an economic analysis attributable to any alternative. However, an economic analysis should not be the sole indicator of power resource impacts. It is our understanding that the economic analysis indicates generation of 11,374.3 GWH in the Action Alternative, which, when compared to the No-Action Alternative, is a reduction of 529.8 GWH. The analysis is based on market prices, which may lead one to believe that the economics are based on a snapshot of Western's selling the energy on the spot market. Western's contractual obligations to deliver CRSP resources to its firm power contractors assume an integrated CRSP resource. Depending on the availability by hour of the Flaming Gorge resource, the actual financial impact to Western and its customers may be much greater than is portrayed in a market economic analysis. Did the power resource analysis and modeling take into account Western's contractual obligations CRSP-wide as opposed to analyzing spot market impacts and costs based solely on Flaming Gorge's operations?
- 2d 2e IV. **Description of CRSP customers**, 3.4, page 60, last paragraph: On October 1, 2004, 54 tribes have the opportunity of becoming CRSP firm electric service contractors.
- V. **Environmental Consequences**, 4.2.1.2. Action Alternative, page 126: The Action Alternative increases the use of spillways to about 15 days per year in 7% of all years. How does this compare to expectations for original project use of the spillways FOR EMERGENCIES ONLY? CRSP contractors are responsible for the operation, maintenance and repair costs of the Project. The estimated \$12,000 annual inspection cost, along with \$30,000 repair cost should be factored into the financial impacts to CRSP customers. The Colorado River Basin Fund is in dire straits due to drought, environmental and market conditions. Any action which potentially draws funds from the Basin Fund must be critically scrutinized. The costs attributable to any spillway use resulting from changed operations for endangered fish should be non-reimbursable and provided by appropriations. Historical spillway use both prior to and

- 2g post-1992 should be assessed for cumulative impact purposes. This same comment applies to increased operation costs as a result of added selective withdrawal adjustments
- 2h VI. **Financial Analysis Results, 4.4.3.3.**: This section indicates insignificant CRSP rate impact but does not address potential Basin Fund cash implications. In order to meet its contractual obligations to the CRSP firm power customers, Western Area Power Administration at times must make firming purchases to accommodate changed operations. Long-term rate impacts are certainly an essential analysis for the DEIS; however, the DEIS is lacking a cash flow analysis based on the Action Alternative and its potential impact on Western's contractual obligations and potential firming purchase requirements. If CRSP Basin Fund impacts are significant enough, this could result in an emergency rate increase. The Action Alternative indicates that the proposal would "lessen Western's ...purchase requirements by an average of approximately \$950,000". Did this analysis take into account changed patterning of the Flaming Gorge resource as it is integrated into the Salt Lake City Area Integrated Projects (SLCA/IP) resource in total? How current is the market price analysis, and does this take into account the potential of an increased CRSP rate (process beginning this month).
- VII. **Flow recommendations/flooding, 4.13, page 224:** the flow recommendations are simply one way to meet the endangered fish needs. It is CREDA's opinion that the intent of the recommendation is to obtain an AVERAGE of flows, not to meet specific flows contained in the recommendations. They may be options, such as levee removal, which would serve to meet the intent of the recommendations without causing additional impact to power production. The Biology Committee of the RIP has recently discussed (August, 2004) a report (Hayse, et al. 2004) suggesting refinement of flow recommendations put forth by Muth et al. (2000) to take into consideration two concepts: 1) larval endangered fish may survive nonnative fish predation if the floodplain site has been reset (i.e. gone through a sequence of drying and filling) and 2) the utility of floodplains as nursery sites are likely a function of their site specific features (e.g., depression, terrace) and location. According to a recent study by Valdez and Nelson (2004), for a given volume of water, maintaining inundation of priority depression floodplains could be achieved by removing or modifying levees so the magnitude of flows needed is reduced (e.g., from 18,600 to 14,000 cfs). Sites chosen for this treatment would be depression floodplains closest to spawning areas. In contrast, when flow recommendations were developed, levels were based on the relationship between flow and total area of inundated floodplains with levees in place. Also, they did not differentiate between depression and terrace floodplains or the length of time these habitats would hold water.
- 2j Benefits of the Argonne approach, using surplus or spilled water in good hydrologic years to achieve environmental purposes, not only would be to achieve floodplain inundation at lower flows but it would: 1) increase the number of years floodplains are connected to the main channel; 2) increase the duration of floodplain connectivity in a given year; and 3) improve entrainment of larvae into floodplain nursery habitats. Another significant benefit of this proposal would be a reduction in the need for bypass and spill at the dam. The DEIS should take into consideration this significant new information, through implementation of the flow recommendations in accordance with the Argonne approach. In fact, the law requires the use of the best available science in this process. The lead agency must use, to the maximum extent practicable, the environmental analysis and recommendations of cooperating agencies consistent with its own responsibilities as the lead agency. 40 C.F.R. Section 1501.6(a)(2); See also CEQ FAQs at 14(b)(A). Further, if relevant data are known to be available to the agency or will be available as the result of ongoing or imminent studies, the FWS should request that data or any other analyses required by the regulations as part of the consultation. Argonne's work clearly meets these standards and should be considered and incorporated as the best available science. If the needs of the species can be met through non-operational alternatives, it appears prudent to do so, to not only preserve the power purpose of the projects, but to avoid an evacuation situation near Jensen, Utah "because notification of potential high flows will allow
- 2k

- 2l ample evacuation time." Notwithstanding health and safety issues, what about property damage? Prevention of flooding must be addressed during this process, as it is also an authorized purpose pursuant to the CRSP.
- 2m
- VIII. **Hydrology, Cumulative Impacts**, 4.16.2, page 231-232: Please confirm if the cumulative impacts from changes in operations since 1974 is \$98 M. Cumulative impact assessment and incorporation is critical in understanding the true impacts to CRSP power customers resulting from 30 years of changed operations. Interim operation criteria for the dam were established in 1974. As a result of initial evaluations of the effects on endangered fish, operations were modified from 1985 to 1991 to benefit the endangered fish. Operations of the dam were further modified beginning in 1992 to benefit the endangered fish and to conduct a five-year research program. To our knowledge, NEPA compliance was not completed on either of these Federal actions. The base from which impacts of the proposed action should be measured must be the 1974 operations. Changes in operations since 1974 are substantial and must be adequately addressed in this process. The DEIS should clearly and succinctly identify these impacts, which are significant in scope. Otherwise, the combined effects of these related actions will not be discussed and evaluated. "Cumulative effects to power generation have been negative due to past operational changes, and would continue to be negative on balance." (S-38). Any and all efforts to mitigate increased impacts on power production should be undertaken.
- 2n
- 2o
- 2p

In the event Reclamation extends the deadline by which comments on the DEIS are to be received, we would like the opportunity to supplement these comments. Thank you for the opportunity to comment and to participate in the public meeting process.

Sincerely,

*/s/ Leslie James*

Leslie James  
Executive Director  
Cc: CREDA Board

---

## **2. COLORADO RIVER ENERGY DISTRIBUTORS ASSOCIATION (CREDA)**

### **2a**

Executive Order No. 13211 relates to actions concerning regulations that significantly affect energy supply, distribution, or use. The proposed action in comparison to the No Action Alternative does not significantly affect the production of electricity at Flaming Gorge Dam.

### **2b**

Reclamation agrees Flaming Gorge should be operated to avoid jeopardy to endangered species while maintaining the congressionally authorized purposes of the dam, and believes that the proposed action as analyzed in the EIS is consistent with this comment.

### **2c**

Development of water resources was highlighted in the EIS narrative to illustrate the close connection between this authorized project purpose, the proposed action, and the Recovery Program. Avoiding jeopardy to listed species and assisting in their recovery is consistent with both statute and the agreements of the Recovery Program.

### **2d**

Western's contractual obligations were not a specific input to the modeling for the economic analysis; however, the market prices that were used implicitly reflect supply and demand conditions for the entire grid. Reclamation did not pursue further detailed CRSP system-wide analysis due to the relatively insignificant economic impact on power. The financial analysis performed by Western, separate from the economic analysis, did explicitly include Western's contractual obligations CRSP-wide. The financial analysis, in section 4.4.3.2 of the

EIS, concluded that the Action Alternative would not have a significant effect on the rate CRSP customers pay.

### **2e**

Comment noted. Text was added to section 3.4 of the EIS.

### **2f**

Reclamation agrees that incremental O&M costs should be non-reimbursable.

### **2g**

As stated in the EIS, use of the spillway in the past has been rare. There are uncertainties associated with increased use of the spillway as discussed in section 4.19.3. Reclamation agrees that incremental O&M costs should be non-reimbursable.

### **2h**

The information in section 4.4.3.2, along with the estimate of reducing Western's purchase requirements by \$950,000, was calculated and provided by Western. Based on input from Western, although a cash flow analysis of the Basin Fund was not conducted, such an analysis would have shown a small favorable effect on the Basin Fund's liquidity. The \$950,000 estimate did reflect the changed patterning of the Flaming Gorge resource. The market price analysis was current at the time of the analysis but was several years old at the time the draft EIS was released to the public. As acknowledged in the draft EIS in section 4.4.2, a more current or different price set could result in a negative impact versus the positive impact displayed in the report; but, in either case, Reclamation and Western believe the impact on the Basin Fund would be small relative to its projected balance. This conclusion would be accurate even with a potential increase in the CRSP rate which is being considered for unrelated reason.

**2i**

Reclamation does recognize in the EIS that achieving the 2000 Flow and Temperature Recommendations as written is one of several requirements to recover the endangered fish. Reclamation is committed to using the best available information when making decisions regarding the operation of Flaming Gorge Reservoir. If better information becomes available for this purpose, Reclamation will utilize it in an adaptive management approach to making operational decisions. To this point, Reclamation has relied on the 2000 Flow and Temperature Recommendations as the best available information regarding endangered fish recovery in the Green River in the EIS process. Both the 2000 Flow and Temperature Recommendations and the EIS describe spring peak flows as “greater-than-or-equal-to” a given flow, implying a minimum peak flow, not an average. Regarding flood plain inundation uncertainties, see section 4.19.5 and 4.21.

**2j**

See sections 4.19.5, 4.21, and response to CREDA comment 2h above. The 2000 Flow and Temperature Recommendations of the Action Alternative were the result of 7-8 years of peer-reviewed data collection and analysis. The Argonne report is still the subject of much discussion and has not been fully peer reviewed, however its significance has been addressed in section 4.19.5 alongside other hypotheses for flood plain inundation and endangered fish recruitment outlined in the 2000 Flow and Temperature Recommendations.

**2k**

The EIS states (section 1.4.4) that the proposed action cannot by itself lead to recovery of the endangered fish. Section 1.4.4 describes the five main elements of the Recovery Program, and

states further that operation of the dam relates to two of these five Recovery Program elements.

**2l**

Reclamation is not responsible for damages to improvements or property in the flood plain. Any improvements have always been made by property owners at their own risk. Flood plain inundation has always occurred along the Green River, though less frequently since Flaming Gorge Dam was built. Nevertheless, though the frequency has declined since the dam has been in place, there has always remained the potential for significant flood plain inundation in wet years, and that potential will continue under either alternative.

**2m**

The authorized purpose of flood control remains in effect under either the Action or No Action Alternatives.

**2n**

The cumulative impact estimated for hydropower represents the difference between the alternatives and a scenario without the biological constraints. The economic value resulting from the analysis determined a value under the scenario of limited biological constraints over the same 25-year timeframe as the two alternatives, for comparison purposes.

The estimated cumulative impacts hydropower economic value does not represent what the economic value would have been since 1974 as prices and generation (under the alternatives) from the last 29 years were not available or used in the model. Generation estimated in the cumulative impacts scenario is less than 3 percent greater than under the No Action Alternative.

**2o**

Reclamation, in consultation with the eight cooperating agencies, defined the

No Action Alternative to include operations to achieve the flow and temperature regimes recommended in the 1992 Biological Opinion. In making that definition, it was also recognized by Reclamation and the cooperating agencies that hydropower impacts associated with changes made between 1974 and 1992 should be recognized in this EIS as cumulative impacts. Operational changes made prior to 1992 are described in section 1.4.2. Hydropower impacts associated with changes made prior to 1992 have been addressed in section 4.16.2.

**2p**

Cumulative impacts to hydropower have been addressed in section 4.16.2. As stated in the description of the proposed action, Reclamation intends to continue all authorized purposes of Flaming Gorge Dam, including hydropower, if the Action Alternative is implemented.



November 15, 2004

Mr. Peter Crookston  
Flaming Gorge Environmental Impact Statement Manager  
U.S. Department of Interior  
Bureau of Reclamation  
Provo Area Office  
302 E. 1860 South  
Provo UT 84606-7317

SUBJECT: Comments on Operation of Flaming Gorge Dam Draft Environmental Impact Statement, dated August 2004

Dear Mr. Crookston:

**3a** The Colorado River Water Conservation District (River District) was created by the Colorado Legislature in 1937 to protect and develop Colorado's Colorado River entitlements. The Green River in Colorado is within the River District boundaries. The River District is very concerned with the potential effect re-operation of CRSP projects like Flaming Gorge will have on the ability of Colorado to develop its Colorado River entitlements.

The River District is an active participant in the Recovery Program for the Endangered Fishes of the Upper Colorado (Recovery Program). We understand the purpose of the re-operation considered in the Operation of Flaming Gorge Dam Draft EIS (DEIS) is to meet the flows recommended by the U.S. Fish and Wildlife Service in 2000 for the explicit purpose of recovering the listed fishes.

We have considered the DEIS and offer the following comments:

**3b** The DEIS does not appear to consider how the proposed changes in operations at Flaming Gorge Dam will impact the authorized original and continuing purpose of meeting downstream compact delivery requirements.

Operations of Flaming Gorge Dam have been adjusted significantly over time as the purported

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**3c** flow needs of the listed fishes have been estimated. In the DEIS the USBOR has considered the most recent operations as the baseline and not recognized the impacts of operational changes which have already been made to benefit the listed fishes.

**3d** The DEIS says in paragraph 3.7.2.4.2.3 "Efforts to increase the availability of flood plain habitats (*presumably through meeting the 2000 flow recommendations*) to benefit razorback sucker will have to account for the potential benefit to non-natives as well." We could not find in the DEIS where USBOR has accounted for the potential benefit to non-natives (and related impacts to the listed species) created by the implementation of the recommended flows although, the superior exploitation of the flood plain habitats by non-native fishes is well documented in the DEIS ("In the flood plain habitats, in excess of a million fish were collected with non-native species accounting for over 99% of the total catch in most areas." Paragraph 3.7.2.4.4.2; and in Paragraph 3.7.2.4.4.3 "The nonnative species greatly outnumbered native fish in these important habitats every year." and "As the river flows receded, many of their larvae were flushed out to the main channel.") The non-native fish issue is also not included in the summary of uncertainties which USBOR proposes to address through adaptive management. We request that the USBOR include in the final EIS and Record of Decision the uncertainty for the success of any operational scenario for Flaming Gorge Dam aimed at benefitting the listed fishes in the presence of the non-native fishes.

**3e** The DEIS recognizes in Section 4.19.5 that additional information generated since the 2000 flow recommendations which reveals that most of the flood plain habitats in reasonable proximity to the razorback spawning sites can be flooded at 13,000 cfs rather than the recommended 18,600 cfs (Valdez and Nelson, 2004) contributes significantly to the uncertainty that the 2000 flow recommendations as considered by the DEIS are necessary to meet the stated objectives. This uncertainty and the potential that the purposes of Flaming Gorge Dam might be better served by conservation of water in the reservoir need to be addressed more completely in the final EIS and Record of Decision.

**3g** The River District looks to USBOR to continue to operate its facilities, including Flaming Gorge Dam, in a manner which is consistent with their original and continuing authorized purposes and with the objectives of the Upper Colorado River Recovery Program, while maintaining the highest standard of scientific integrity. We look forward to continuing our cooperation with the USBOR in this regard.

If you have any questions concerning these comments please contact me at your convenience.

Sincerely,

Ray D. Tenney, P.E.  
Senior Water Resources Engineer

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### **3. COLORADO RIVER WATER CONSERVATION DISTRICT**

#### **3a**

The proposed action is consistent with Recovery Program efforts to recover the four endangered species. The Recovery Program was created specifically to recover the endangered species while providing for the continuation of water development.

#### **3b**

Section 1.1 of the EIS states that the proposed action is to protect and assist in recovery of the populations and designated critical habitat of the four endangered fishes, while maintaining all authorized purposes of the Flaming Gorge Unit of the CRSP, particularly those related to the development of water resources in accordance with the Colorado River Compact.

#### **3c**

The Flaming Gorge EIS captures the existing environment (baseline) as including changes due to the construction of the dam as well as its operations prior to 1992. Changes and effects resulting from the construction of the dam and its pre-1992 operations are considered in the cumulative impacts analysis in section 4.16 of the EIS.

#### **3d**

Section 4.19.4 in the EIS has been revised in response to this comment.

#### **3e**

Presence of nonnative fish was added to the uncertainties section 4.19. See response to Colorado River Water Conservation District 3d.

#### **3f**

Section 4.19.4 in the EIS has been revised based on this comment.

#### **3g**

The EIS states Reclamation's intent to implement all of the 2000 Flow and Temperature Recommendations as described in the Action Alternative. Section 4.19 explains the uncertainties associated with implementing the Action Alternative, including in section 4.19.5 those uncertainties associated with flood plain inundation. Both the EIS and the 2000 Flow and Temperature Recommendations acknowledge that, over time, as additional information becomes available, refinements to the flow and temperature recommendations may prove to be warranted if data suggests that tradeoffs between peak flow magnitude and duration provide greater benefits to endangered fish. Reclamation believes that if such refinements are proposed at some as yet unknown point in the future, based upon information developed through adaptive management or through ongoing Recovery Program research, there will be ample opportunity to obtain appropriate review and input from all Recovery Program participants as well as the interested public.



## Duchesne County Water Conservancy District

855 East 200 North (112-10)

Roosevelt, Utah 84066

**General Manager:** Randy Crozier  
**Assistant Manager:** Don W. Winterston  
**Admin. Assistant:** Adrienne S. Maret

Office: (435) 722-4977

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**Board Members:**

Art Taylor, Chairman  
Keith Mortensen, Vice-Chairman  
Ed Bench, Member

Lynn Burton, Member  
D. Brad Hancock, Member  
Craig Thomas, Member  
Max Warren, Member

*Upper Chain Lake*

November 15, 2004

Mr. Peter Crookston  
Flaming Gorge EIS Manager  
PRO-774  
Bureau of Reclamation  
Provo Area Office  
302 East 1860 South  
Provo, Utah 84060

Dear Mr. Crookston:

When the Ultimate Phase of the Central Utah Project was dissolved, the U.S. Bureau of Reclamation was left with a 430,910 acre-foot storage filing in the Flaming Gorge Reservoir. The Utah Division of Water Resources was given control over the water right in order to preserve the 1956 priority date. The Division of Water Resources segregated the water right to conservancy districts, irrigation companies, and individuals for beneficial use. In 1999, the Duchesne County Water Conservancy District (DCWCD) was approved for 47,600 acre-feet of this Flaming Gorge water (with 3,200 acre-feet of the allocation for municipal and industrial use (M&I) use and 44,400 acre-feet for supplemental irrigation).

4a

We recently reviewed the Draft Environmental Impact Statement for the Operation of Flaming Gorge Dam and wish to voice our concerns that the operation of said dam not impact the delivery of DCWCD's allocated water right. We felt that the comments made in Section 1.8 of the Flaming Gorge DEIS were too brief and did not fully explain how the water rights allocated to the above entities would be protected. As DCWCD is in the process of putting our allocated water rights to beneficial use, we are very concerned that these rights be protected. DCWCD would like to see this issue addressed in more detail, rather than by general reference in Section 1.8.

We appreciate the opportunity to comment on this DEIS. For any further questions, please feel free to call me at the Duchesne County Water Conservancy District office at (435) 722-4977 or my cellular phone at 823-5726.

Sincerely,

*Randy Crozier by Don Winterston*  
Randy Crozier  
General Manager

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## **4. DUCESNE COUNTY WATER CONSERVANCY DISTRICT**

### **4a**

In accordance with the Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] 1500.1), the EIS is intended to fully disclose significant information while remaining as concise as possible. Since there are no effects to water rights under either the Action or No

Action Alternatives, the disclosure of this fact in section 1.8.4 of the EIS is sufficient and appropriate treatment of the issue. Clarification has been added to this section. The statement of purpose and need in section 1.1 provides for the continuation of authorized purposes, including development of water resources.



## SWEETWATER COUNTY CONSERVATION DISTRICT

Mary E. Thoman, Chairman   Randy Shipman, Vice Chairman   Jean Dickinson, Secretary   Tom Burris, Treasurer   George Stephen, Member

79 Winston Drive, Suite 110  
Rock Springs, Wyoming 82901 (307) 362-3062 (307) 362-1459 Fax

November 9, 2004

Flaming Gorge EIS Manager, PRO-774  
Bureau of Reclamation, Provo Area Office  
302 East 1860 South  
Provo, Utah 84606-7317

Re:   Comments regarding the Operation of Flaming Gorge Dam Draft  
Environmental Impact Statement

Dear Mr. Peter Crookston,

The Sweetwater County Conservation District ("District" or "SWCCD") submits the following comment with respect to the Operation of Flaming Gorge Dam Colorado River Storage Project Draft Environmental Impact Statement.

The District is established pursuant to Wyoming law to promote the conservation and management of natural resources within the district, including soil and water. State law defines the term "conservation" broadly to include "development, improvement, maintenance, preservation, protection and use of natural resources, and the control and prevention of floodwater and sediment damages, and the disposal of excess waters." Wyo. Stat. §11-16-102(iv). The District is also granted authority to assist, promote, and protect public lands and natural resources, soil, water, and wildlife resources, to develop water and to prevent floods, to stabilize the ranching and agriculture industry, to protect the tax base, and to provide for the public safety, health, and welfare of the citizens. The District is charged with conserving, protecting, and developing these resources on all lands within the District, including federal, state, and private land. The District boundaries include all of Sweetwater County. For these reasons, the District has a direct interest in the U.S. Department of the Interior (USDOI) Bureau of Reclamation (BOR) operation of Flaming Gorge Dam.

- 5a**      The District was not contacted regarding cooperating agency participation in this EIS process. Due to the limited amount of time the District has had to familiarize with the draft, our comments are limited at this time. The District reserves the right to supplement the comments when additional information is made available.
- 5b**      The District hereby requests that the USDOI BOR consider the 2001 Green River Basin Plan in all aspects of the Operation of Flaming Gorge Dam Colorado River Storage Project Environmental Impact Statement.

CONSERVATION   •   DEVELOPMENT   •   SELF-GOVERNMENT

Operation of Flaming Gorge Dam  
Colorado River Storage Project  
Draft EIS  
Page 2 of 2

5c

The District hereby requests the consideration of the Sweetwater County Conservation District interim policy October 2004 Draft Land and Resource Use Plan and Policy in all aspects of the Operation of Flaming Gorge Dam Colorado River Storage Project Environmental Impact Statement, in particular the policies on pages 37 through 41 (see enclosed draft Plan).

Very truly yours,

*Mary E. Thoman*

Mary E. Thoman, Chairman  
Sweetwater County Conservation District

*copy*

CONSERVATION • DEVELOPMENT • SELF-GOVERNMENT

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## **5. SWEETWATER COUNTY CONSERVATION DISTRICT**

### **5a**

Reclamation extended invitations to the States of Colorado, Utah, and Wyoming with the understanding that the states would coordinate with potentially affected counties and represent their concerns. Of the three States, only the State of Utah wished to be a cooperating agency. Nevertheless, Reclamation would have welcomed any county as a cooperating agency, but no requests for such were received from any county.

### **5b**

As requested, Reclamation reviewed the 2001 Green River Basin Plan, which presented current and future (projected to 2030) recreation use within the Green River and Bear River Basins of Wyoming. As stated in section 1.8.1 of the EIS, the proposed action would not affect the Green River upstream of Flaming Gorge Reservoir. Recreational effects to Flaming Gorge Reservoir were estimated as generally positive (please see section 4.11.3.2.1 and 4.11.3.2.2 of the EIS).

Regarding water quality, Reclamation did not see anything to address or that was of concern in this plan.

Chapter 4.0, Environmental Consequences, clearly describes how the analysis of future water demands within the Upper Green and Little Snake River Basins in Wyoming was performed. Reclamation did not find projected water use data specific to the Upper Green and Little Snake River Basins. The data is combined for both basins into a single value, which makes it difficult to determine how any differences between the data presented in the Wyoming report and the depletions of the Flaming Gorge

Model would affect the results of the Flaming Gorge Model.

However, Reclamation has determined that the depletions used in the Flaming Gorge Model are very similar to the depletions reported in the Wyoming report. The report gives three scenarios (low, moderate, and high) of development to the year 2030. Reclamation compared these values to the values presented in the Upper Colorado River Commission (UCRC) Report (dated 1999) which gives estimates of future depletions in the Upper Division States. The depletions used in the Flaming Gorge Model were derived from the UCRC Report.

Reclamation found that the depletions in the Wyoming Report are slightly higher than those in the UCRC Report but well within the range of those values. We do not believe that the difference between these sources is significant enough to have any meaningful impacts on the results of the Flaming Gorge Model under any of the alternatives that were modeled.

The UCRC is Reclamation's source for projected depletion information. Wyoming is an active member of the UCRC. If the Wyoming State Engineer has obtained updated information regarding projected depletions, he should encourage UCRC to share this new information with Reclamation so that Reclamation's modeling efforts on the Colorado River can be updated to the most current projected depletions schedules.

### **5c**

As requested, Reclamation has reviewed the Sweetwater County Conservation District Land and Resource Use Plan and Policy. We do not find anything in that plan that would be of concern relative to the proposed action as analyzed in the EIS.