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DIVISION OF WATER RIGHTS

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POLICY REGARDING APPLICATIONS TO APPROPRIATE WATER
AND
CHANGE APPLICATIONS WHICH DIVERT WATER FROM THE GREEN RIVER BETWEEN
FLAMING GORGE DAM, DOWNSTREAM TO THE DUCHESNE RIVER

In 1988, the State of Utah entered into a cooperative agreement with the Department of Interior, the Western Area Power Administration, and the states of Colorado and Wyoming. This agreement put in place the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (RIP). The objective of the program is to recover the four endangered species of fish, while at the same time allowing the states to develop their compact entitlement to the waters of the Colorado River and its tributaries.

On November 25, 1992, the U.S. Fish and Wildlife Service, after consultation with the Bureau of Reclamation, the Utah Division of Wildlife Resources, the Colorado Division of Wildlife and others, issued the final Biological Opinion for the operation of Flaming Gorge Reservoir. The Opinion concluded that the continued operation of Flaming Gorge Dam, as in the past, is likely to jeopardize the existence of the endangered fish species. The opinion recommended stream flows in the Green River for each season and stated:

Elements of a reasonable and prudent alternative, that in the opinion of the Service, will avoid the likelihood of jeopardy to the endangered Colorado River fish are based, in part, on the reoperation of Flaming Gorge Dam and include:

1. Refinement of the operation of Flaming Gorge Dam so that flow and temperature regimes of the Green River will more closely resemble historic conditions.
2. Conduct a 5-year research program including implementation of winter and spring research flows beginning in 1992 to allow for potential refinement of flows for these seasons. This research program will be based on the Five-Year Flaming Gorge Flow Recommendations Investigations which are being conducted by the Recovery Program (Appendix B). The program provides for annual meetings to refine seasonal flows based on research findings and water year forecast. Except for specific research flows during the 5-year research program, year-round flows in the Green River will resemble a natural hydrograph described under element 1 of the reasonable and prudent alternative.



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3. Determination of the feasibility and effects of releasing warmer water during the late spring/summer period and investigation of the feasibility of retrofitting river bypass tubes to include power generation thereby facilitating higher spring releases.
4. Legal protection of Green River flows from Flaming Gorge Dam to Lake Powell.
5. Initiation of discussions with the Service after the conclusion of the 5-year research program to examine further refinement of flows for the endangered Colorado River fish.

The reoperation of Flaming Gorge Dam has been included as part of the reasonable and prudent alternative for several other projects as well. If reoperation is not accomplished and flows are not protected, consultation on these projects may be reinitiated.

The reasonable and prudent alternative (RPA) section of the Biological Opinion identifies the flows needed to produce a natural hydrograph and temperature regime in the Green River and how Flaming Gorge Dam should be operated to meet these objectives. Since additional research is ongoing for the flow requirements during the winter and spring seasons, only the summer and autumn flows are being considered for protection at this time. The RPA recommends flows for the summer and autumn periods as follows:

SUMMER

Green River flows should continue decreasing, [from the high spring flows] attaining a target flow of between 1,100-1,800 cfs at Jensen, Utah. Although historic summer and fall flows generally fell within this range, varying hydrologic conditions sometimes produced summer flows higher than these. It is the intent of the summer recommendation to optimize available nursery habitat shown to be necessary for larval Colorado squawfish. The date for achieving the target flow will be established based on the Yampa River hydrograph and using the following guidelines. During dry years, when the spring peak is abbreviated, larval squawfish should reach the nursery areas around June 20. During normal and wet years, the target flow should be achieved on or near July 10 and July 20, respectively. The dates presented herein are based on past spawning and larval drift data and are typical for dry, wet, and normal water years. The actual dates will be determined based primarily on the timing of runoff in the Yampa River. Based on hydrologic conditions and Reclamation's water release needs, a target flow for Jensen will be selected in the range of 1,100-1,800 cfs which will remain in effect through the summer period. Fluctuations will deviate no more than 25 percent around the established flow, while remaining within the 1,100- 1,800 cfs range. For example, if 1,600 cfs is selected as the target flow, then flows as measured at Jensen will remain between 1,350-1,800 cfs; or if a target of 1,300 cfs is selected, then flows will remain between 1,100-1,625 cfs. These ranges are not daily means but are hourly values as measured at the U.S. Geological Survey gauge at Jensen, Utah.

A summer freshet originating from the Yampa River or any other tributary would not require a change in release from Flaming Gorge Dam to compensate for the

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additional flow. We assume that these were natural events historically and can probably be tolerated by the native species. Releases from Flaming Gorge beginning July 1 and continuing until November 1 should be of the warmest water available, approaching 15°C (highest lake levels). By releasing the warmest water available during this period, water temperatures in the upper Green River should not differ more than 5°C from the temperature in the Yampa River at Echo Park and should average near 22-25°C in Gray Canyon from July 1 to August 15.

AUTUMN

Autumn flows are a continuation of the late summer flows described above. However, if the year was classified as wet during the April coordination meeting and a need to release excess water still exists, the target flow may be increased to within the range of 1,100-2,400 cfs. If water conditions dictate, the new target may be selected on or after September 15. The 25-percent fluctuation around the target flow remains in effect. Green River flows (measured at Jensen) at or below 2,400 cfs should be sustained until November 1 of each year. During average and dry years, the target flows selected for summer will remain in effect. Flow after November 1 are addressed in the winter period.

Under the RIP, the parties agreed that state law would be followed in the acquisition and/or protection of flows required for recovery. The State Engineer has examined alternative methods of flow protection, and has concluded the most appropriate alternative is the adoption of a policy that all new approvals be conditioned upon bypassing the required flows.

On Wednesday October 12, 1994, the State Engineer held a 3:00 pm meeting for local government and water leaders in the Uintah County Commission Chambers, and a public meeting at 7:00 pm in the Western Park Convention Center in Vernal. Attached is a copy of the notices sent out for these meetings, and a list of those who attended. At each meeting, a presentation was made covering the following topics:

- ▼ Endangered Species Act
- ▼ Overview of the Recovery Implementation Program
- ▼ Section 7 reasonable and prudent alternatives tied to re-operation of Flaming Gorge Dam
- ▼ Hydrology of the Green River
- ▼ Flow recommendations for summer and fall seasons under the Biological Opinion
- ▼ State Engineer's proposed policy to protect flows

There was no opposition expressly stated to the proposal at the public meetings. Interested parties were given until November 1, 1994 to

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submit written comments providing any information or data that they believe the State Engineer should consider. One comment letter was received from a water user who was strongly opposed to the proposed policy.

In reviewing the potential ramifications of protecting the summer and fall flows in the Green River, the State Engineer considered hydrology, existing water rights, interstate compact provisions and other related information.

The average annual flow of the Green River as measured at the gaging station near Jensen for the period 1947-93 is about 3,100,000 acre-feet. Since the construction of Flaming Gorge Dam (1962) the flows in the Green River have changed significantly. Prior to the construction of the dam, streamflows in an average year were characterized by high spring flows near 30,000 cubic feet per second (cfs) and relatively constant flows during the remainder of the year. After the dam became operational, the average peak flows were reduced to about 20,000 cfs, and flows during the summer and fall, ranged from 1,000 cfs to 2,500 cfs, with frequent fluctuations due to releases for power generation. The Yampa River joins the Green River about 50 miles downstream of the dam and contributes about one-half of the flow of the Green River as measured at the Jensen gage.

Within the affected reach of the Green River, there are 69 perfected water rights or approved applications to appropriate water on file with the State Engineer which divert 1.00 cfs or more. These water rights represent a total flow of 429 cfs and a potential annual diversion of 112,000 acre-feet. These figures do not include any water right claims for the Ute Indian Tribe. However, if the 1990 Ute Indian Water Compact is ratified, tribal water rights will be considered and protected.

Under the Upper Colorado River Compact, Utah is allotted twenty-three percent of the waters apportioned to the Upper Basin States (after subtracting the 50,000 acre-feet allotted to Arizona). Current estimates place Utah's share at about 1,437,000 acre-feet annually. This is the total depletion that Utah can have within the entire Upper Colorado Basin, which covers the eastern half of the state from Lake Powell on the south to Flaming Gorge Reservoir on the north.

Utah is currently depleting about two-thirds of its entitlement and nearly all of the remaining water is covered by approved applications. The current appropriation policy of the State Engineer in the Upper

Colorado River Basin is to allow applications which do not exceed a diversion rate of 0.25 cfs. Applications larger than 0.25 cfs may be considered depending on the availability of water in the local area.

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Considering compact limitations and the physical availability of water, it does not appear that protecting the flows released for the endangered fish species will adversely affect existing water rights or unreasonably affect Utah's ability to utilize its compact entitlement. The actions proposed under this policy would not affect existing water rights or currently approved applications. To give the State some flexibility in meeting future water needs in this area, however, it appears desirable that a small block of water should be reserved and excluded from this policy.

It is the opinion of the State Engineer that the public interest will be best served by adopting a policy to protect flows in the Green River from Flaming Gorge Dam (Willow Creek in the Biological Opinion) downstream to the confluence of the Green River and Duchesne River for the summer and autumn periods. To accomplish this, the State Engineer implements the following policy:

1. Approval of applications to appropriate water or change applications which transfer water rights into the affected reach, will be conditioned upon bypassing those flows required for the endangered fish during the period from June 22 to November 1, as set forth in the Biological Opinion, except as provided for under paragraph 2.
2. To meet future critical water needs in the area, an additional amount of flow for diversion totaling up to twenty cfs year-round in the designated reach is set aside and not subject to this policy. Applications approved to utilize this twenty cfs will be administered according to their priority date, and will not be required to bypass flows for endangered fish.
3. All water rights established or applications approved prior to November 30, 1994, will not be subject to this policy.
4. The State of Utah, in cooperation with Recovery Program participants, will meet each year to review projected release patterns from Flaming Gorge Dam. The State Engineer will distribute the waters of the Green River in accordance with the respective priority dates of the water rights, and pursuant to the criteria set forth in this policy, protect the flow regimes which are agreed upon at these meetings.
5. In the administration and protection of the flows for the endangered fish species, all measurements will be at the Green River near Jensen gage (USGS station number 09261000).

This policy is hereby adopted as of NOVEMBER 30, 1994.


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State Engineer