

STATE OF COLORADO

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TO: Colorado Water Conservation Board Members

FROM: Linda J. Bassi, Chief *LJB*
Kaylea M. White *KW*
Stream and Lake Protection Section

DATE: July 9, 2010

SUBJECT: **Agenda Item 31, July 20-21, 2010 Board Meeting**
Stream and Lake Protection---Injury with Mitigation---Case No. 4-
03CW108; Application of Upper Gunnison River Water Conservancy
District, Lake San Cristobal

Introduction

This agenda item addresses a proposed pretrial resolution under ISF Rule 8i. (3) (Injury Accepted with Mitigation). Rule 8i (3) requires the Board to consider an injury with mitigation proposal using a two-meeting process. This is the second meeting of the process. This proposal was initially brought to the Board in May, 2010. The proposal is to mitigate impacts of installation and operation of structures that would at times lower the level of Lake San Cristobal to elevations below the CWCB's decreed Natural Lake Level ("NLL") elevation. The mitigation involves operational limitations, releases of water for instream flow purposes, and a comprehensive monitoring plan for wetlands around the lake. See attached map.

The proposal would allow some injury to the Lake San Cristobal NLL water right, but it appears that the operational limitations, releases and monitoring proposed by Applicant will provide the mitigation necessary to enable the CWCB to continue to preserve the natural environment to a reasonable degree in Lake San Cristobal, despite any injury that could otherwise result from new operations of the lake.

Staff Recommendation

Staff recommends that the Board:

- 1) Determine that the natural environment of Lake San Cristobal could be preserved to a reasonable degree despite the proposed injury to the ISF if Applicant and any successors in interest, including the Enterprise, provide the proposed mitigation, and
- 2) Approve the pretrial resolution of this case.

Background

The current Applicant is Upper Gunnison River Water Conservancy District (“UGRWCD” or “the Applicant”). However, at some point in the near future, UGRWCD plans to transfer the water court application, permits, grants, etc to the Lake San Cristobal Water Activity Enterprise (“the Enterprise”) established by Hinsdale County pursuant to § 37-45.1-101, *et seq.*, C.R.S. The Enterprise will be operated by Hinsdale County, the Town of Lake City, and UGRWCD pursuant to an intergovernmental agreement signed by the parties in 2009. The Applicant has requested a water storage right in Lake San Cristobal on the Lake Fork of the Gunnison River in Hinsdale County. The stored water is to be used directly or as a replacement source in UGRWCD’s proposed plan for augmentation including exchange to replace out-of-priority depletions within a portion of the District’s boundaries in the Gunnison River Basin. Out-of-priority depletions in the reach of the Lake Fork of the Gunnison River downstream of Lake San Cristobal would be augmented directly from the lake; those depletions upstream from Lake San Cristobal or on another tributary would be augmented by exchange.

To maintain the water storage space, Applicant proposes to install a structure at the outlet of the lake that will permit Applicant to control the lake surface level between 8,992 and 8,995 feet, representing a volume of 946 acre-feet of water (6.9% of the Board’s decreed NLL water right). Reservoir operations will lower the surface level below the Board’s decreed NLL of 8,995 feet during periods of augmentation releases. The permanent control structure is designed in part to mimic the effect of temporary rock structures that have been installed annually at the lake outlet since the 1970s.

The Board filed a statement of opposition to this application to protect its Lake San Cristobal NLL water right and its instream flow (“ISF”) water rights in the plan area. Negotiations regarding potential injury to the Board’s ISF water rights are ongoing. This memo and discussion focus solely on injury to the NLL water right and UGRWCD’s plan for mitigation of that injury. The Board’s action in this injury with mitigation proposal shall not encompass the proposed augmentation plan with exchange, but will solely address the storage right in Lake San Cristobal. The exercise of the proposed rights could adversely impact the Board’s NLL water rights shown below. The Board’s ISF water rights that could adversely be impacted by the application are numerous and are not listed here. However, CWCB staff will negotiate separate terms and conditions to assure 100% protection of the Board’s ISF water rights in the plan area.

CWCB Case No.	Stream/Lake	Elevation (ft)	Approp. Date	Watershed	County
4-77W3366	San Cristobal Lake	8,995	5/12/76	Upper Gunnison	Hinsdale

UGRWCD has agreed to mitigate the impact to the NLL by: (1) utilizing the outlet structure to maintain the lake surface level at the decreed lake level of 8,995 feet as long as possible; (2) releasing stored water from the lake in dry years, which may supplement CWCB’s ISF water right on the Lake Fork of the Gunnison River by replacing un-replaced out-of-priority depletions; and (3) dedicating 100 acre-feet of storage water to CWCB for downstream ISF use until the water is needed for augmentation.

Extent of Proposed Injury

Since before the Board’s appropriation of the NLL in Lake San Cristobal, the lake has been controlled to some extent by various temporary structures to keep the lake level at its higher elevation as long as possible during the summer months when the lake level might otherwise drop. The proposed plan is to install a permanent Obermeyer Spillway Gate (a row of steel gate panels supported on the downstream side by inflatable air bladders) at the lake outlet. This structure will provide: (1) a more efficient means to control the lake level at its higher level during the summer months and; (2) a permanent adjustable mechanism to store and release the proposed 950 acre-feet of water supply. The injury to the Board’s NLL water right will occur when the lake level is dropped below the decreed elevation of 8995 feet, as stored water is released for augmentation under this project. Most of the augmentation water will be

needed during the 5-month irrigation season during dry years, but some may be needed year-round during dry and average years. Injury to the NLL could occur at any of these times.

Mitigation Plan

Applicant plans to utilize the outlet structure to maintain the lake surface level at the decreed lake level of 8,995 feet as long as possible each year. This will provide a better natural environment in the lake for a longer period each year than without this structure. At this point, it appears that the lake level will remain at a higher level when the augmentation water is not used.

Stored water will be released from the lake in dry years, which will supplement CWCB's ISF water rights on the Lake Fork of the Gunnison River. Without this stored water, CWCB may call for its ISF water rights but curtailment of some junior wells would not yield water to the river because of delayed impacts. There is no other replacement water available to augment the wells. This project will provide replacement water for those depletions that would not otherwise be replaced, including those of the Town of Lake City. The CWCB affected ISF water rights are as follows:

CWCB Case No.	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County
4-80CW097	Lake Fork Gunnison River	35 (5/1 – 9/30) 20 (10/1-4/30)	3/17/1980	Upper Gunnison	Hinsdale
4-80CW119	Lake Fork Gunnison River	45 (5/1 – 9/30) 25 (10/1-4/30)	3/17/1980	Upper Gunnison	Hinsdale Gunnison

A factor to consider in the mitigation plan is the fact that augmentation replacements by UGRWCD for out-of-priority depletions in the basin are currently released from Blue Mesa Reservoir. However, under the proposed plan, augmentation replacements to calls downstream of Blue Mesa Reservoir for depletions in the basin could be made from Lake San Cristobal; therefore, the augmentation flows would be shepherded down the Lake Fork during periods of low flows increasing the stream flows through the instream flow reach.

The Applicant has also agreed to dedicate 100 acre-feet of storage water to CWCB for downstream ISF use until such time as all of the water is needed for augmentation. Applicant would maintain control of the other 850 acre-feet for its other decreed uses. Applicant estimates that the 100 acre-feet could be made available to CWCB for a period of at least 20 years. CWCB staff recommends that the Board accepted this mitigation component. The legal mechanisms to provide CWCB the ability to protect releases for ISF use are described below.

The Applicant has been working though issues with the U.S. Bureau of Land Management, which owns part of the land around the lake, the Colorado Division of Wildlife ("CDOW") and the U.S. Army Corps of Engineers ("USACE") on wetlands issues. The Applicant is working towards obtaining a Nationwide Permit under Section 404 of the Clean Water Act for the project, which requires a special condition incorporating an extensive wetlands monitoring plan. The plan and initial approval letter were attached to Staff's May, 2010 Item 13 Board memo.

Legal Mechanism for 100 acre-foot Dedication for ISF Use

Applicant has agreed to dedicate 100 acre-feet of stored augmentation water for the CWCB's use to supplement and bring its existing ISF water rights on the Lake Fork Gunnison River up to their decreed amounts when stream flows are below those decreed amounts. Applicant and CWCB will enter into an agreement or stipulation regarding this dedicated water. The proposed decreed use of the storage water includes piscatorial, fishery and wildlife habitat and augmentation, which will enable the water to be used to augment the existing ISF water rights. If either of the ISFs is short of the decreed amounts, the CWCB may request the Applicant to release all or part of CWCB's interest in the 100 acre-feet at a rate to be

determined at CWCB's discretion to help bring the ISFs up to the decreed amounts. The Division Engineer will shepherd and protect the released water through the decreed ISF reach(es). Transit losses will be assessed by the Division Engineer at the same rate used in the Applicant's decree for its augmentation water releases – a rate of 1% per mile.

The dedicated 100 acre-feet will be available to the CWCB until the Applicant's sales of Augmentation Certificates commit stored water in excess of 850 acre-feet, at which time the amount of water dedicated to CWCB will be reduced incrementally. The dedicated water shall remain in effect for a period of not less than 20 years from the date of the Lake San Cristobal decree in Case No. 4-03CW108, unless: (1) Bureau of Reclamation terminates the District's water service contract for Blue Mesa Reservoir augmentation water in accordance with UGRWCD's decreed plan for augmentation in Case No. 4-03CW49; and (2) the Applicant's demand for augmentation water exceeds 850 acre-feet.

The injury and mitigation of the injury under this agreement will be reassessed after 20 years from the date of the decree entered in this case. This term is currently described in the proposed decree as follows:

After twenty years from the date of this Decree, or when sales commit stored water in excess of 850 acre-feet, whichever is sooner, the CWCB and the Enterprise, with input from the Colorado Division of Wildlife, shall reassess the impacts to Lake San Cristobal from the operation of the outlet structure in accordance with the Decree in order to determine if the dedication of 100 acre-feet to the CWCB is necessary to mitigate the injury to the NLL Water Right.

In conducting the reassessment, the CWCB and the Enterprise, in consultation with the Colorado Division of Wildlife, shall use all available data to assess the impacts, if any, upon aquatic resources of Lake San Cristobal that are sought to be preserved by the NLL Right that have been mitigated by dedication of 100 acre-feet for use by the CWCB. Such impacts, if any, shall be balanced against the benefits to the natural environment in the Lake Fork of the Gunnison River downstream from Lake San Cristobal conferred by operation of the plan for augmentation approved in this Decree.

If the assessment determines that any impact upon aquatic resources of Lake San Cristobal sought to be preserved by the NLL Right exceeds, on balance, the benefit to the natural environment in the Lake Fork of the Gunnison River downstream from Lake San Cristobal conferred by operation of the plan for augmentation approved in this Decree, the Enterprise shall provide alternative mitigation of that impact.

Benefits of Mitigation

At the May 2010 Board meeting, Mr. Frank Kugel, General Manager of UGRWCD and the Enterprise, provided a presentation of the Applicant's project and proposal for Injury with Mitigation and explained the benefits to the natural environment resulting from the outlet structure operations and other mitigation efforts.

It is anticipated that mitigation efforts to maintain the lake level at its decreed level as often as possible could increase the ability of Lake San Cristobal to sustain aquatic biota and the natural environment. Mitigation efforts that add water to the Lake Fork of the Gunnison River could improve the hydraulic conditions of the stream, increasing the ability of the stream to sustain aquatic biota.

Colorado Division of Wildlife Evaluation of Proposal

CWCB and CDOW staff members have met several times with the Applicant's representatives to discuss this proposal. The CDOW recommends that the CWCB make the preliminary determination that the

natural environment of Lake San Cristobal could be preserved to a reasonable degree if the Applicants provide the proposed mitigation with the understanding: the CDOW may provide additional comments on any other permits issued relating to this project; and, if an individual permit is required the mitigation plan may need to be approved by the Wildlife Commission. In addition, the CDOW is currently reviewing the "draft" monitoring plan submitted by the Applicants and may request that additional studies be included into that monitoring plan. Also if the results of the wetland monitoring plan indicate that the identified wetlands are being impacted further mitigation may be required.

Alternatives

Because of the location of structures to be augmented on the Lake Fork of the Gunnison River by the Applicant's plan for augmentation in relation to the senior calling water rights, no other physical water supply alternatives are available to the Applicant. The senior calling water rights in this case include the CWCB's instream flow water rights on the Lake Fork of the Gunnison River. Other alternatives considered were:

1. Constructing an outlet works that raises the surface level to approximately 8,998 feet;
2. Modification of the Board's NLL water right decreed to Lake San Cristobal pursuant to ISF Rule 9; and
3. Inundation of the Board's NLL pursuant to ISF Rule 7.

Given the minimal impact to the Board's NLL under this proposal, Applicant submits that the proposed alternative is the most reasonable alternative.

Terms and Conditions

Staff, the Attorney General's Office and Applicant have discussed proposed terms and conditions related to the injury with mitigation proposal. Some terms and conditions are yet to be negotiated, but injury with mitigation terms and conditions in the final decree should include the following:

1. The District will not store water in Lake San Cristobal under this Decree until the outlet structure is in place and fully operational, and the dedicated 100 acre-feet has been assigned to the CWCB, thus providing the agreed-upon mitigation measures.
2. The outlet structure must be maintained permanently as a condition of making releases from Lake San Cristobal.
3. CWCB and Colorado Division of Wildlife staff shall have access to the outlet structure and the Lake at all times for the purpose of inspecting the structure and, if necessary, to perform biological lake monitoring; provided, however, that the Enterprise shall receive written notice of the date and time of any such inspection or testing at least fourteen days prior to the date of inspection or testing and shall be provided with the results of the testing and a copy of any report prepared as a result of such inspection or testing.
4. If the Enterprise ceases to utilize the outlet structure when hydrologic conditions permit to improve maintenance of a constant lake surface level at the decreed natural lake level of 8,995 feet, or ceases in dry years to release water from the impoundment that supplements CWCB instream flow water rights in the Lake Fork of the Gunnison River downstream from Lake San Cristobal, all in accordance with this Decree, the CWCB will no longer accept the injury to the NLL Right. In such case, if the CWCB places a call for the natural lake level water right, the CWCB will notify the Division Engineer this provision of the Decree is now in effect and that the CWCB is not accepting the injury.

5. This court shall retain jurisdiction to enforce the terms of the settlement with the CWCB as a water matter.

Based upon staff and CDOW's discussions with Applicant's representatives, it appears that the Applicant's mitigation plan supports the conclusion that the natural environment of Lake San Cristobal can continue to be preserved to a reasonable degree under the conditions described herein as a result of the mitigation provided by Applicant. Staff and the Attorney General's Office have consulted with the Division Engineer on this proposal. The Division Engineer has concluded that this proposal is administrable. Staff, Applicant, the AG's office, and the Division Engineer have agreed in concept to the legal mechanism necessary to protect releases of the dedicated 100 acre-feet for ISF use.

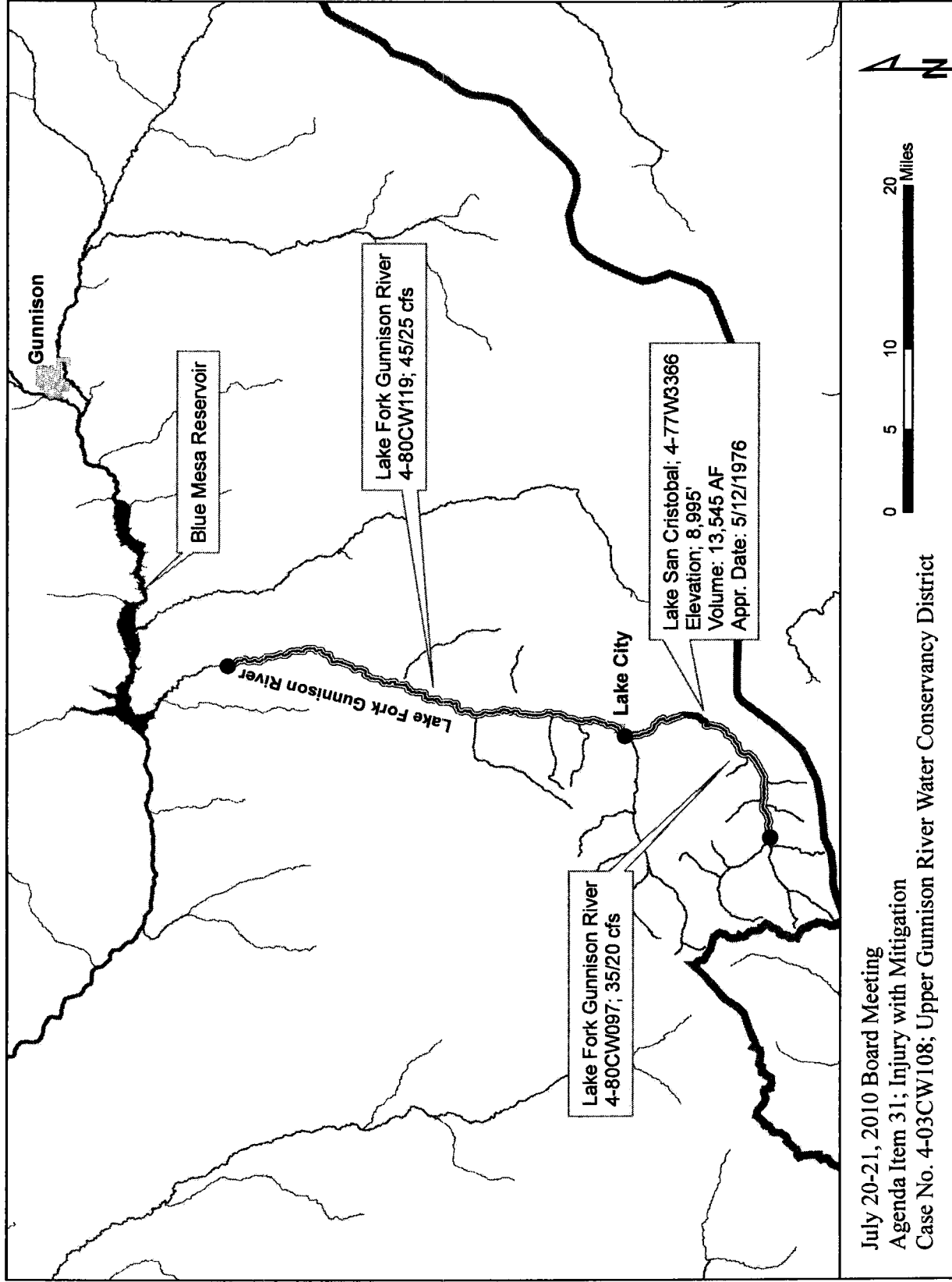
Staff Recommendation

As stated above, injury with mitigation is a two-meeting process. At the first meeting, the Board "conduct[ed] a preliminary review of the pretrial resolution during any regularly scheduled meeting to determine whether the natural environment could be preserved to a reasonable degree with the proposed injury or interference if Applicant provided mitigation." At this subsequent meeting, the Board may "take final action to ratify, refuse to ratify or ratify with additional conditions."

Staff recommends that the Board:

- 1) Determine that the natural environment of Lake San Cristobal could be preserved to a reasonable degree despite the proposed injury to the ISF if Applicant and any successors in interest, including the Enterprise, provide the proposed mitigation, and
- 2) Approve the pretrial resolution of this case.

Attachment



July 20-21, 2010 Board Meeting
Agenda Item 31; Injury with Mitigation
Case No. 4-03CW108; Upper Gunnison River Water Conservancy District

