

# STATE OF COLORADO

## Colorado Water Conservation Board Department of Natural Resources

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TO: Colorado Water Conservation Board Members

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

DATE: January 18, 2013

SUBJECT: **Agenda Item 20, January 28-29, 2013 Board Meeting**  
**Stream and Lake Protection Section – Request to Inundate – Case No. 1-06CW37; Application of Board of County Commissioners of Clear Creek County and Colorado Historical Society, State of Colorado**

John W. Hickenlooper  
Governor

Mike King  
DNR Executive Director

Jennifer L. Gimbel  
CWCB Director

### Introduction

This agenda item addresses a proposed pretrial resolution under ISF Rule 7, Inundation of ISF Rights, (“Inundation”). This proposal is to inundate a portion of the instream flow (“ISF”) water right on Clear Creek as a part of the Colorado Historical Society’s Lebanon Mill restoration, approximately 1 mile southwest of Georgetown, Colorado. The inundation will result from the construction of a dam and reservoir to be used for storage for aesthetics, energy generation, augmentation and other beneficial uses. This memo addresses the inundation issue. A general map is attached as Appendix A and Applicant’s request to inundate is attached as Appendix B.

### Staff Recommendation

Staff recommends that the Board:

- Determine that the inundation does not significantly interfere with the instream flow water right on Clear Creek and therefore the natural environment of Clear Creek can continue to be preserved to a reasonable degree despite the inundation, and
- Approve the inundation request.

### Case Background

The Board of County Commissioners of Clear Creek County and the Colorado Historical Society (“Applicants”) submitted an application for water storage rights in Case No. 1-06CW37, seeking 4.2 acre feet of conditional storage in Lebanon Mill Reservoir with an appropriation date of February 8, 2006. If decreed, this conditional water storage right will be junior to the ISF water right. The storage right will be located on Clear Creek to store water in the Lebanon Mill Reservoir, which will be restored to its prior form. Proposed uses of the stored water are aesthetics, energy generation, renovation of historic structures including water wheel, dam and mill associated with the Georgetown Loop Railroad, augmentation, and fish and wildlife habitat.

In May 2006, the Board ratified the statement of opposition to this application partially because the inundation of the instream flow (ISF) could injure the Board's ISF water right set forth below. CWCB became a party in this case with the intent of negotiating terms and conditions to fully protect the Board's ISF water right.

The Board holds the following ISF water right that could be injured by this application:

<b>CWCB Case No.</b>	<b>Stream/Lake</b>	<b>Amount (cfs)</b>	<b>Approp. Date</b>	<b>Watershed</b>	<b>County</b>
1-84CW649	Clear Creek	10	7/11/84	Clear Creek	Clear Creek

See map attached as Appendix A. The Clear Creek ISF water right decreed in 84CW649 will be partially inundated by the Lebanon Mill Reservoir. The ISF water right extends from the headwaters of Clear Creek to its confluence with South Clear Creek and passes through Applicant's property approximately 0.65 miles upstream of Georgetown, Colorado. Staff will continue negotiations in this case to insure that the ISF water right on Clear Creek below the inundation will be 100% protected with terms and conditions in the decree.

#### **Extent of potential impact of the inundation**

The Colorado Historical Society ("Proponent") has submitted a request to inundate the Clear Creek ISF right and will present the request at the Board meeting. The request is attached as Appendix B. Proponent plans to reconstruct Lebanon Mill Reservoir to store water as part of the renovation of historic structures associated with the Lebanon Silver Mine, including a water wheel, a dam and a mill. Applicant has not yet determined the size of the dam structure; however, it is planned to fall within the range of 8 to 13 feet in height. The following table shows the extent of the inundation based on these parameters:

	<b>Dam Height (feet)</b>	<b>Volume (acre feet)</b>	<b>Surface Area (acres)</b>	<b>Linear Feet</b>
<b>Minimum</b>	8	1.65	0.38	310
<b>Maximum</b>	13	4.2	0.62	495

Pursuant to ISF Rule 7e., Applicant is required to provide information on the following factors:

[T]he location of the inundation, the size of the inundation, impact of the inundation on the natural environment, any unique or rare characteristics of the ISF water right to be inundated, any regulatory requirements or conditions imposed upon the applicant by federal, state and/or local governments, all terms and conditions included in applicant's water court decree, and any compensation or mitigation offered by the Person proposing the inundation.

The required information was provided in the proposal to inundate, attached as Appendix B, and is discussed in this memo.

## **Discussion**

ISF Rule 7g allows the Board several options regarding a request to inundate an ISF water right: to approve, approve with conditions, defer, or deny the request to inundate. Rule 7g requires the Board to consider all relevant factors, including:

(1) the extent of inundation proposed; (2) the impact of the proposed inundation on the natural environment existing prior to the inundation; (3) the degree to which the beds and banks adjacent to the ISF right subject to the inundation are publicly or privately owned; (4) the economic benefits arising from the inundation; (5) the benefits to recreation and downstream ISF segments arising from the inundation; (6) the degree to which the proposed inundation will allow development of Colorado's allotment of interstate waters as determined by compact or adjudication; and, (7) any mitigation or compensation offered to offset adverse impacts on the ISF right.

The extent of the requested inundation will be between 0.38 and 0.69 acres and 310 and 495 linear feet of Clear Creek within the ISF reach. The beds and banks adjacent to the ISF right are owned by the Proponent. A reservoir existed in the same location as the proposed Lebanon Mill Reservoir as a part of the historic operations of the Lebanon Silver Mine. Proponent does not believe the inundation will impair the ISF water right and thus has not offered any mitigation or compensation. According to the proponent, due to original and reconstructed improvements near the inundation, the existing natural environment is already somewhat compromised. Proponent is taking measures to reduce the environmental impacts. Those measures include but are not limited to preventing an existing mining tailings pile from becoming inundated by the proposed reservoir.

Proponent reported in its request to inundate that “[a]lthough an Army Corps of Engineer Individual Permit will be necessary for the dam construction, a site visit with the Corps representative confirmed the project would not need to address wetlands.” Thus, the imposition of mitigation requirements as part of an USACE 404 permit is not anticipated.

Proponent believes that economic benefits will result from its reconstruction of the Reservoir. The creation of Lebanon Mill Reservoir is part of a larger plan to restore the Lebanon Mill, which is a living history exhibit accessible by the Georgetown Loop Railroad. Completion of the restoration project is expected to attract more visitors to the town of Georgetown, and more passengers to the Proponent’s Georgetown Loop Railroad, thereby increasing revenue to the Proponent and the town.

The inundation does not appear to provide any direct benefits to recreation or downstream ISF segments. Proponent asserts that the proposed inundation should have no effect on any interstate compact. Maximization of beneficial use will be supported by the Proponent’s use of the water right for the beneficial uses claimed in the water court application and ultimately approved by the water court.

## **Colorado Parks and Wildlife Evaluation of Proposal**

CWCB and Colorado Parks and Wildlife (“CPW”) staff members conducted a site visit and met with Proponent’s representatives to discuss this proposal on August 21, 2008. The site visit included the Lebanon Mill Reservoir site and the ISF reaches above and below the inundation

area. At the site visit, Colorado Parks and Wildlife staff suggested that while the proposed inundation may result in a minor interference with the ISF water right at the reservoir site, that interference could be offset by potential benefits to the natural environment. The ISF reach above the reservoir could benefit by the dam as a fish barrier, which could provide an opportunity to separate non-native fish species from native fish populations in the upstream reaches of Clear Creek. The reservoir site itself is in close proximity to a conservation population of boreal toads being actively monitored and managed by CPW. The margins of the reservoir could provide habitat for these boreal toads. Based on discussions, site visits and review of documents, CPW has concluded that while the inundation may cause a minor interference with the ISF water right, it is offset by other benefits to the natural environment. CPW's analysis and recommendation will be presented at the board meeting.

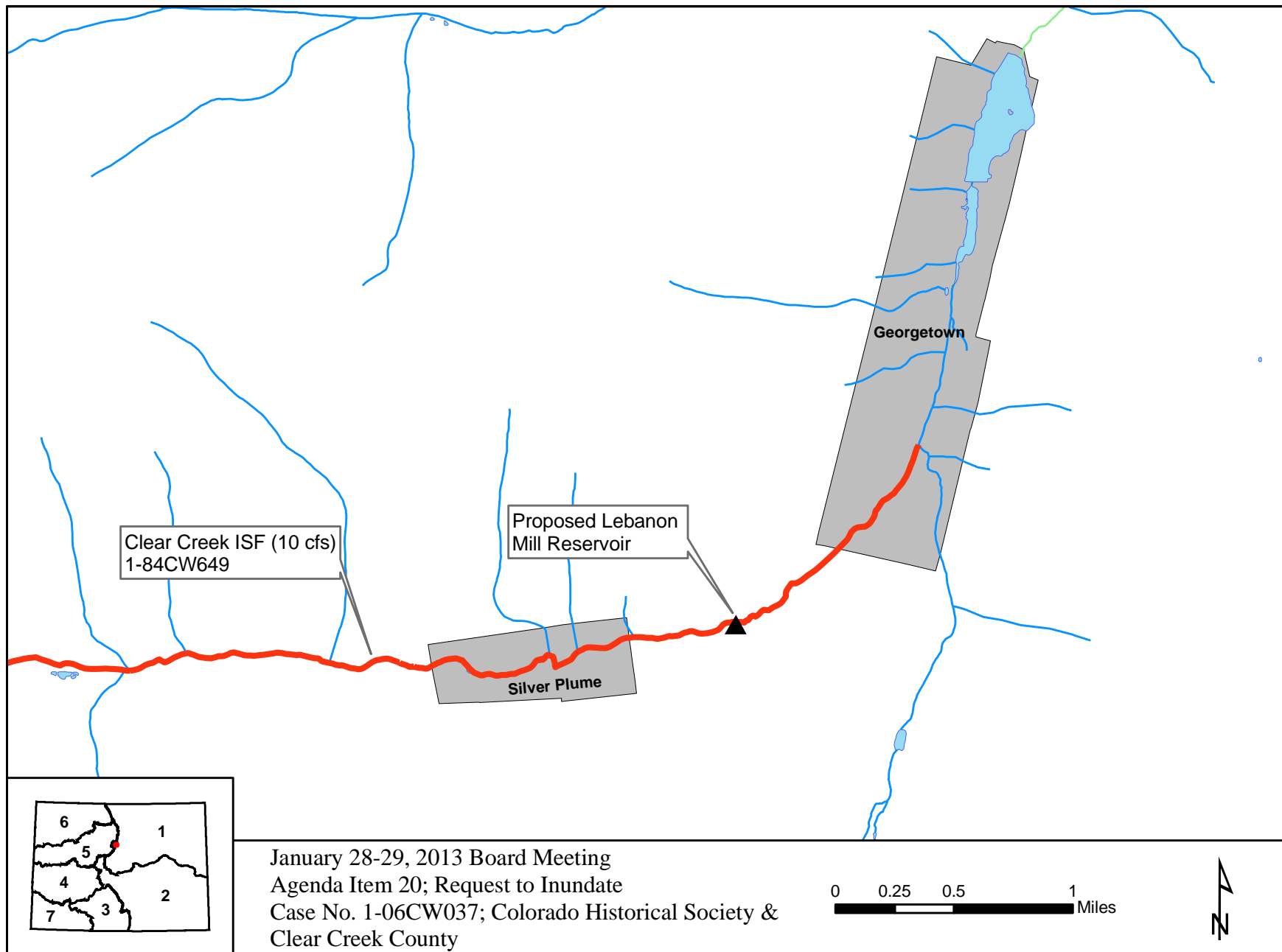
## **Conclusion**

Based upon a review of Proponent's inundation request, and upon staff's and CPW's discussions with Proponent's representatives, it appears that the Applicant's request to inundate Clear Creek supports the conclusion that the natural environment of Clear Creek can continue to be preserved to a reasonable degree with the proposed inundation.

## **Attachments**

Appendix A: Map

Appendix B: Applicant's Request to Inundate





**JOHN W. SUTHERS**  
Attorney General

**CYNTHIA H. COFFMAN**  
Chief Deputy Attorney General

**DANIEL D. DOMENICO**  
Solicitor General

**STATE OF COLORADO**  
**DEPARTMENT OF LAW**  
**OFFICE OF THE ATTORNEY GENERAL**

**STATE SERVICES BUILDING**  
1525 Sherman Street - 7th Floor  
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August 20, 2012

**VIA EMAIL**

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RE: Request to Inundate  
Application of Colorado Historical Society, Lebanon Mill Reservoir  
Case No. 06CW37, Division 1

Dear Kaylea,

The Colorado Historical Society has filed for a water storage right on Clear Creek that is the subject of the application in Case No. 06CW37. The proposed reservoir is a portion of the restoration project at the Lebanon Mill, a site viewable from the Georgetown Loop Railroad, and would entail inundation of Clear Creek, about one mile southwest of Georgetown. Applegate Group, Inc, is the consultant assisting the Historical Society in design of the reservoir. The CWCB's instream flow right was decreed in 84CW649 and is for 10 cfs. The Historical Society is submitting this request to inundate under the pending application for storage right and pursuant to Rule 7.c of the Rules Concerning the Colorado Instream Flow and Natural Lake Level Program, 2 CCR 408-2 ("ISF Rules").

Rule 7.e Required Information

Location of the inundation: The dam is in the SW ¼ SE ¼ of Section 18, Township 4 South, Range 74 West of the 6<sup>th</sup> P.M. See attached vicinity map.

Size of the Inundation: 4.2 acre feet, .38 acres surface area

Impact of the inundation on the natural environment: The Historical Society will take measures to protect the existing nearby mine tailings pile from becoming inundated as a result of this reservoir. With mitigation measures in place regarding the mine tailings pile, the Historical Society does not believe there will be any negative impact on the natural environment. The inundation area is less than a ½ acre and contains no wetlands or properties owned by anyone other than the Historical Society. Although an Army Corps of Engineer Individual Permit will be necessary for the dam construction, a site visit with the Corps representative confirmed the project would not need to address wetlands. Additionally, the dam will be designed with an outlet pipe to allow for releases to be made from the reservoir when needed. Once the reservoir is filled, all inflows will be released and no additional water will be stored.

Unique or rare characteristics of the ISF water right: The Historical Society is not aware of any unique or rare characteristics of the ISF water right at this location.

Federal, State or local government regulatory requirements: A Clear Creek County Special Use Permit is required for long term or permanent changes to the land, and Clear Creek County "1041 Regulations" will have to be followed. The Special Use Permit and 1041 Permit are typically processed by the County concurrently and the Historical Society will have to receive both permits prior to construction of the dam. The Historical Society will also have to receive approval of their plans and specifications for the dam prior to construction by the Office of the State Engineer and will also need approval from the U.S. Army Corps of Engineers prior to construction of the reservoir.

Terms and Conditions of the water court decree: Although the storage right has not yet been approved by the water court, the most recent draft of the decree is attached. Six parties filed statements of opposition to the water court application: City of Arvada, CWCB, Coors Brewing Co., City of Golden, State and Division Engineers and the City of Westminster. Coors, Golden and Westminster have stipulated to entry of the decree and only Arvada, the CWCB and the Engineers remain in the case.

Any compensation or mitigation offered by the applicant: As stated above, the Historical Society does not believe the inundation will create any negative impact on the instream flow right and therefore has not proposed any compensation or mitigation.

It is the Historical Society's position that the proposed inundation does not interfere with the CWCB's Clear Creek instream flow right and seeks a determination from the Colorado Water Conservation Board of the same. Given the following considerations, the existing environment will not be adversely impacted due to the construction of the reservoir.

(1) The extent of the inundation proposal. The proposed reservoir is very small, it will hold 4.2 AF, and the surface area will be approximately 0.38 acres in size. Although the Historical Society recognizes that an inundation of any size can potentially impact the natural environment, the Historical Society's consultants have included the mitigation efforts referenced above regarding the mine tailings in the preliminary design to prevent any adverse impact to the existing environment.

(2) The impact of the proposed inundation on the natural environment existing prior to the inundation. The north abutment of the dam will be the remains of the wooden chute used to convey water to the turbine, and the existing Lebanon Mill site forms the embankment of the proposed reservoir on the north side. Given the mill and other improvements on the site, the natural environment is to some degree already compromised, and the Historical Society will not cause any additional adverse impacts to the banks. On the south side there will be some tree loss but no other adverse consequence. Given that the reservoir used to actually exist in this location, and the small size of the inundation, the proposed reservoir, once constructed, will not cause adverse impacts to the existing natural environment.

(3) The beds and banks adjacent to the ISF right are owned by the Historical Society, who is working to ensure there will be no adverse impact to the beds or banks.

(4) Economic benefits arising from the inundation. The goal of the project is to restore the Lebanon Mill, which was constructed in 1871 to create a living history exhibit. The Historical Society believes this attraction will lure more passengers on the Georgetown Loop Railroad and to the Town of Georgetown itself, creating more revenue for the Historical Society as well as the Town.

(5) Benefits to recreation and downstream ISF segments arising from the inundation. There will be no benefits to river recreation or downstream ISF segments resulting from the inundation.

(6) The degree to which the proposed inundation will allow development of Colorado's allotment of interstate waters as determined by compact or adjudication. The proposed inundation should have no effect on any interstate compact.

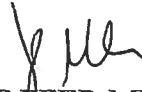
(7) Mitigation or compensation offered to offset adverse impacts on the ISF right. The Historical Society sees no adverse impacts to the ISF right and therefore has proposed no mitigation or compensation.

The Historical Society requests that the CWCB approve the inundation under ISF Rule 7 and withdraw the statement of opposition filed in this case.

Please let me know if you would like any additional information, and how the applicant should proceed at this point. Your assistance with this matter is greatly appreciated.

Sincerely,

FOR THE ATTORNEY GENERAL



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Enclosure

cc: Andrew Stine  
Lisa Farmer

AG File: DOCUMENT2



## COLORADO PARKS & WILDLIFE

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16 January 2013

Ms Linda Bassi  
Colorado Water Conservation Board  
Stream and Lake Protection Section  
1313 Sherman Street, Room 723  
Denver, CO 80203

**SUBJ: Request to Inundate – Case No. 1-06CW37; Clear Creek County  
Board of Commissioners and Colorado Historical Society**

Dear Linda:

The purpose of this letter is to transmit Colorado Parks and Wildlife's (CPW) recommendations regarding the proposal to inundate a portion of the instream flow water right on Clear Creek in Water Division 1. The proposal to inundate comes from the Clear Creek County Commissioners and the Colorado Historical Society (a state agency). The inundation proposal comes as a result of the potential re-construction of a historical mill pond structure (the Lebanon Mill Reservoir) on Clear Creek between Georgetown and Silver Plume along the route of the Georgetown Loop historic railway. The Lebanon Mill site is approximately 1 mile above Georgetown on Clear Creek approximately 1/3 of the way up the railway's route between Georgetown and Silver Plume.

The above referenced water right application was filed in early 2006 and the CWCB filed a statement of opposition to this case in water court asserting that the inundation could injure the state's instream flow water right. These actions initiated actions by CWCB staff and CPW under Instream Flow Rule 7 where upon receiving a request to inundate from the applicants, a site visit was scheduled where information was collected and gathered relative to the proposal, the site conditions, natural environment, and stream channel configuration.

### **Extent of Proposed Injury and Discussion**

The Board hold the following ISF water right on Clear Creek – a 10 cfs year round instream flow appropriation covering 13.5 miles of stream from the headwaters to the confluence with South Clear Creek. This water right was decreed in 84CW649 with an appropriation date of 7/11/1984 based on a recommendation from CPW's predecessor agency, the CDOW. The proposed Lebanon Mill Reservoir site is approximately 1.5 miles upstream of the downstream terminus for this ISF appropriation.

#### STATE OF COLORADO

John W. Hickenlooper, Governor • Mike King, Executive Director, Department of Natural Resources  
Rick D. Cables, Director, Colorado Parks and Wildlife  
Parks and Wildlife Commission: Robert W. Bray • Chris Castilian • Jeanne Horne  
Bill Kane, Vice-Chair • Gaspar Perricone • James Pribyl • John Singletary, Chair  
Mark Smith, Secretary • James Vigil • Dean Wingfield • Michelle Zimmerman  
Ex Officio Members: Mike King and John Salazar

According to information provided by the applicants in this case, the proposed reservoir will have a dam ranging in height from 8 feet to a maximum of 13 feet impounding between 1.65 and 4.2 acre-feet of water (stored under a priority junior to the ISF water right). The resulting reservoir will be between 0.38 and 0.62 surface acres and will result in the inundation of between 310 and 495 feet of stream habitat. CPW's analysis of this proposal will be based on the worst case scenario – that the larger project configuration will be constructed at the site. In raw numbers, the larger project configuration will inundate 0.69% of the total stream reach covered by the CWCB's ISF water right.

The 13.5 mile stream reach that is protected by the Board's water right starts as a typical alpine headwaters stream near the Loveland Ski Area complex, it parallels Interstate 70 and is, at times, constricted by the highway. There are 3 or 4 very steep sections of stream along the 13.5 mile course that are interrupted by areas of mountain meadow habitat and areas of gentle gradient with forested uplands. Stream water quality in the upper 5.5 miles of the stream reach is very good but the lower 8 miles are impacted by historic mining and thus has higher heavy metals and the CDPHE-WQCC water quality standards reflect these impacts. The stream fishery consists of mainly brook trout with a few brown trout found in the lower reaches. These fish are generally tolerant of metals and are self-sustaining. In the upper, clean reaches of Clear Creek there are opportunities for native salmonid (cutthroat) conservation populations; there are several natural physical migration barriers that exist but native fish management opportunities in this area are complicated by the proximity of the interstate highway, the Loveland Pass road, and the Loveland Ski Areas.

There are two defined reaches of Clear Creek that have known populations of boreal toads and reproduction of toads has been known to occur here – both of these areas are upstream of the proposed project with one being in close proximity to the Lebanon site. Boreal toads are classified as a candidate species for Endangered Species Act protection but listing of this species has been precluded due to conservation strategies and agreements currently in place in states that have boreal toad habitat and populations. CPW and the State of Colorado are active participants in the boreal toad conservation efforts. Boreal toads have been successfully cultured by CPW for re-introduction at the Native Aquatic Species Research Facility in Alamosa (a facility that was constructed and is currently operated with CWCB support).

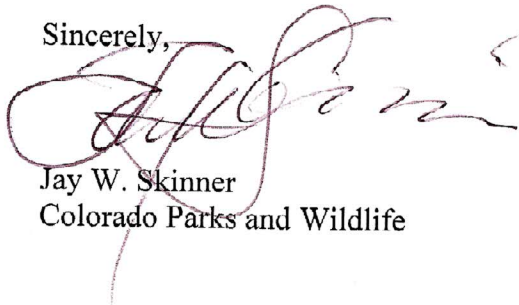
At this point in time, it is somewhat unclear as to what federal permits might be required for the construction of this facility. The applicants have said that an Individual 404 Permit will likely be necessary but no extensive wetlands issues will have to be addressed. The applicants have also stated that considerable attention will be paid to any mine or mill tailings at the site to see to it that these are not disturbed or introduced to flowing or standing water. It is also my understanding that the applicants are aware of the state mitigation requirements under CRS 37-60-122.2.

### Conclusion

Collectively, CPW staff is of the opinion that the proposed reservoir will only result in very minor interference with the Board's ISF water right. The maximum length of stream that will be converted from flowing water habitat to standing water habitat is minimal (less than 1% of the total protected by this particular ISF water right). We are also of the opinion that the dam's utility as a migration barrier (albeit duplicative of natural barriers that already exist) has the potential to benefit future native fish management opportunities. The reservoir itself may have multiple environmental benefits as well – first, it may improve downstream water quality by trapping metals and second, it may provide habitat for boreal toad (particularly if the reservoir's margins and shorelines are not too steep and there is emergent vegetation). CPW staff is also of the opinion that once notification of the USACOE Individual Section 404 Permit is received and the 122.2 process is initiated, that adequate mitigation/avoidance measures will be developed to address any fish, wildlife, or recreation impacts.

I intend to be present at the CWCB meeting to present CPW's recommendations with respect to this project and to answer any questions that the Board might have. Thanks again for the opportunity to review this proposal and we look forward to the successful implementation of this project.

Sincerely,

A handwritten signature in dark ink, appearing to read "Jay W. Skinner", is written over a large, faint, circular red stamp or watermark.

Jay W. Skinner  
Colorado Parks and Wildlife