

STATE OF COLORADO

Colorado Water Conservation Board Department of Natural Resources

1313 Sherman Street, Room 721
Denver, Colorado 80203
Phone: (303) 866-3441
Fax: (303) 866-4474
www.cwcb.state.co.us



TO: Colorado Water Conservation Board Members

FROM: Rebecca Mitchell, Water Supply Planning Section

DATE: July 3, 2013

John W. Hickenlooper
Governor

Mike King
DNR Executive Director

James Eklund
CWCB Director

SUBJECT: **Agenda Item 20, July 16-17, 2013 Board Meeting**
Fish & Wildlife Mitigation Plan, LEDE Reservoir Enlargement Project

Background

LEDE Reservoir is currently operated under a Forest Service Special Use Permit, issued to the Town of Gypsum (the Town). LEDE Reservoir is located in the White River National Forest approximately 13 miles south of Eagle (by air) and 18.5 miles southeast of Gypsum (by road) in Eagle County. The Town applied for a revised Special Use Permit to reconstruct and enlarge the dam for LEDE Reservoir. The White River National Forest approved the application and a revised Special Use Permit has been issued, authorizing necessary reconstructive work. The Town enlargement of LEDE Reservoir will be from its current size of 24.8 surface acres and 431 acre-feet (AF) of storage capacity to 32.2 surface acres and 947 AF of storage capacity. This meets the Town's identified need for an additional 512 AF of water supply for projected municipal growth, provides reliable dry-year carryover storage and helps meet minimum in-stream flows on Gypsum Creek. Ancillary benefits include enhancement of the fishery and recreational opportunity provided by the reservoir. The Town intends to begin construction in summer 2013, pending the approval of this mitigation plan. The Town's most current estimate of construction costs is \$5,017,900.

Discussion

The Colorado Parks and Wildlife Commission will be asked to approve the LEDE Reservoir Enlargement Project Fish and Wildlife Mitigation Plan (Plan) prepared by the Town at their upcoming meeting on July 11. The Plan addresses impacts to fish, wildlife and plant life through mitigation measures that include: 1) construction best management practices, such as minimizing disturbances to vegetation and soils during construction; 2) release of water to mimic or improve flows native to Gypsum Creek; 3) off-site wetlands mitigation; and 4) construction stipulations to reduce the potential spread of invasive species and minimize trash that could attract bears. Mitigation costs are estimated at \$119,600.

Staff Recommendation

Staff recommends that the Board adopt the Plan if approved by The Colorado Parks and Wildlife Commission as the official state position on the mitigation actions required of the Town.

**STATE OF COLORADO
FISH AND WILDLIFE MITIGATION PLAN**

Applicant/Prepared by: Town of Gypsum
LEDE Reservoir Enlargement Project
Contact: Jim Hancock, Engineer, Town of Gypsum
Date: June 17, 2013

Pursuant to Colorado Revised Statutes, C.R.S. § 37-60-122.2 and Colorado Parks and Wildlife Regulations, #1604, the Town of Gypsum submitted the following materials for its LEDE Reservoir Enlargement Project. This information is provided to supplement the materials provided by Steve Dahmer of Environmental Solutions, Inc. via e-mail dated January 4, 2013, which initially started this review process by the Colorado Parks and Wildlife Department. All referenced documents can be found at the following file transfer protocol website, and we are continuing to update this site as permits are finalized. Engineering consultation was provided by Zancanella & Associates, and legal consultation was provided by Patrick|Miller|Kropf|Noto P.C. This document serves as the State of Colorado's Fish and Wildlife Mitigation Plan for the LEDE Reservoir Enlargement Project.

<https://waterlaw.box.com/s/wa8w4t7b3aeflpcq46x5>

I. Project Description

Currently, LEDE Reservoir is operated under a Forest Service Special Use Permit EAG152, issued to the Town of Gypsum. LEDE Reservoir is located on the White River National Forest approximately 13 miles south of the Eagle (by air) and 18.5 miles southeast of Gypsum (by road) in Eagle County, Colorado. The Reservoir was originally built in the 1930's and enlarged in the 1940's. Historically, LEDE Reservoir covered approximately 24.8 surface acres and had a capacity of 431 acre-feet of water. The reservoir has always been operated by filling during spring runoff and then releasing stored water for irrigation use during summer and fall of each year. The reservoir has typically been drained by the end of the irrigation season, usually mid-September or sooner.

The Town of Gypsum assumed ownership of LEDE Reservoir's water rights in 2006. A map of the LEDE Reservoir location is attached as **Exhibit 1**. The Town of Gypsum plans to reconstruct and enlarge the dam for LEDE Reservoir to meet Colorado's dam safety regulatory requirements, to ensure long-term storage capacity and dry-year carry-over storage, and to protect the Town's existing water rights. The enlargement proposal is also designed to provide reliable dry-year carryover storage and help meet minimum in-stream flows on Gypsum Creek. Ancillary benefits include enhancement of the fishery and recreational opportunity provided by the reservoir.

The Town of Gypsum applied for a revised Special Use Permit for the expansion of the LEDE Reservoir. White River National Forest has completed its review and issued a revised Special Use Permit to the Town of Gypsum authorizing necessary reconstructive work on the LEDE Reservoir dam and spillway. The Town enlargement of LEDE Reservoir will be from its current size of 24.8 surface acres and 431 acre-feet (AF) of storage capacity to 32.2 surface acres and 947 AF of storage capacity. This meets the Town of Gypsum's identified need for an additional 512 AF of water supply for projected municipal growth.

The Town's repair of the dam and outlet works is planned to meet current Colorado Division of Water Resources, Dam Safety Branch standards. This approval is nearly complete and the information for the plans and specifications is on the above referenced website. The required repairs include replacing the outlet works which involves removing most of the dam. Given this requirement, the Town determined, with the assistance of a CWCB loan, to simultaneously enlarge the reservoir to match physical storage capacity with the legal storage rights. The dam crest will be raised by 19 feet. The project area includes the Reservoir itself plus a 1,000-foot perimeter around the normal high water line within which all construction activity and proposed future inundation will occur. For further details please refer to the following documents located on the above referenced website:

- Special Use Permit approved by the U.S. Forest Service, attached. Biological Evaluation, Biological Assessment, Management Indiciary Species Report and Environmental Assessment for LEDE Reservoir Enlargement Project, as prepared and approved by the U.S. Forest Service,.
- Final Design and Construction Plan Submittal Town of Gypsum L.E.D.E. Reservoir Enlargement, Construction Plans CO Dam ID: 370105 to the Dam Safety Branch of the Colorado Department of Water Resource, attached.
- Documents for Army Corps of Engineers Permitting
- Other related permit information

II. Estimate of Construction Costs.

The Town's most current estimate of construction costs is \$5,017,900. For details, please refer to the attached budget submittal approved by the Town in 2012.

III. Assessment of Fish and Wildlife Resources Impacted by the Project.

Alternative Analysis. The detailed analysis of alternatives, as presented in Chapter 3 of the Environmental Assessment, concludes that in-basin storage is the only available, least environmentally damaging practicable alternative for meeting all identified needs. This process has resulted in the selection of alternatives that avoid and minimize impacts to wetlands and other resources. Please refer to the attached Biological Evaluation for LEDE Reservoir Enlargement Project, Biological Assessment for LEDE Reservoir Enlargement Project, and L.E.D.E. Dam/Reservoir Enlargement Environmental Assessment on the website. This EA contains significant review and assessment of fish, wildlife and plant life that may be impacted in the affected area. In particular, please see Section 6 of the Environmental Assessment. The federal agencies recommended the conservation measures listed on pages 51-52 of the Environmental Assessment. These measures will mitigate losses to fish and wildlife resources, and were determined adequate by the Forest Service in its Decision Notice and Finding of No Significant Impact, attached as **Exhibit 2** hereto.

In addition, pursuant to the Colorado Parks & Wildlife letter dated May 24, 2013, the Town has assessed the State's issues related to the riparian area, instream flows, fisheries and angling in Eagle County, and the wildlife communities in the Gypsum Creek drainage. The following mitigation activities related to fish and wildlife values follow.

1) Specific Mitigation Activities

- a) BMPs. The proposed action includes construction best management practices, such as minimizing disturbances to vegetation and soils during construction, placement of standard erosion control BMPs on disturbed areas, and the restoration and re-vegetation of disturbed areas that will effectively minimize and rectify impacts due to construction activities.
- b) Maintain or Improve Downstream Riparian Habitat. The effects to the stream channel and aquatic species in Gypsum Creek will be mitigated by releasing water to mimic or improve flows native to Gypsum Creek. The Town is implementing a bypass flow during spring runoff when the reservoir is filling in the amount of 0.1 to 0.3 cfs, with exact amount dependent on the water-year. This will keep water in the intermittent section of the Gypsum Creek channel when it has historically been dried up. Enlargement will also allow for late summer and fall releases to Gypsum Creek, which are typically dry periods for the natural creek, and which are not possible under current storage quantity limitations. Other operational activities, including fish stocking and dry-year carryover storage, will serve to compensate for and further reduce environmental effects of the enlargement on the existing Gypsum Creek stream channel. In addition, the following mitigation measures are planned.
- i. By-pass Releases. As noted above, pursuant to the Forest Service Special Use Permit, during runoff, there is a guaranteed water bypass in the amount of 0.1 to 0.3 cfs. The riparian area below the LEDE Reservoir is confined to a very narrow channel, does not include extensive diversity, and will also benefit from the usual seepage from an unlined reservoir and the drainage area surrounding the channel. Seepage will direct back to this narrow channel. In addition to the guaranteed by-pass, Town will balance non-runoff season releases against needs for carry-over storage, municipal demands, instream flow needs, and to protect winter fish habitat – depending on the water year involved.
- ii. Larger Releases. During runoff release periods for municipal needs, the flows may be greater than 0.3 cfs, as determined by the Town. To the extent possible in average or wet years, greater flows may be released during runoff to provide downstream flushing flow and channel maintenance. This will depend on a variety of water management factors to be considered by Gypsum during the runoff season. In addition, it is noted that Red Creek provides significant flushing flows to the Gypsum Creek watershed, which is not impacted by this project. When possible, the Town will meet or exceed the average peak flow in the Creek of 3.5 cfs as may be measured from time to time at the Dewey Park gaging site location.
- c) Overwinter Habitat and Sustain Downstream Fishery. The Town of Gypsum shares the desire to improve the fishery, both over the winter and downstream. The overall depth of the LEDE Reservoir will increase approximately 17-18 feet under the approved enlargement. This should assist in fish survival over the winters. However, a dead pool is not possible based on the dam safety approvals from the State of Colorado, and the requirement to minimize the disturbance of the existing reservoir basin. As noted in the Geotechnical Report for the LEDE project, Appendix H:

“Disturbance to the existing reservoir bottom should be limited to maintain the integrity of the existing reservoir liner. Construction of the

permanent pool will likely penetrate the existing reservoir liner and increase the risk of reservoir bottom seepage.”

Therefore, it is preferable to minimize any additional excavation within the reservoir basin. Any remedial actions related to the deeper excavation could be quite costly.

- i) Carry-over Storage Benefits. However, a significant goal for the Town is to have carry-over storage to protect against multiple drought seasons. The Town will continue to work with the relevant federal and state agencies to stock the pond as needed. The increased storage also increases the likelihood of winter carryover water. More depth decreases the likelihood of winter fish loss.
- ii) Ramped Releases. If reservoir releases do exceed 3.5 cfs, then the Town will accordingly ramp flows up or down in a staged fashion to prevent flushing or stranding fish, during either periods when flows will increase or when flows decrease.
- d) Wetlands Mitigation. The Proposed Action also includes off-site wetlands mitigation in Eagle County, including stream channel and wetlands restoration that will fully replace the food chain, water quality and wildlife habitat functions of the wetlands impacted by the reservoir enlargement. The wetlands mitigation plan is incorporated by reference and includes off-site stream channel re-construction and re-establishment of emergent and shrub-scrub vegetation adjacent to the stream channel. Such wetlands mitigation shall be in conformance with final wetland permitting pending from the Army Corps of Engineers.
- e) Lower Colorado River Recovery Agreement. The Town of Gypsum signed a Recovery Agreement with the USFWS as required to offset impacts to endangered fish species in the lower Colorado River, pursuant to the Final Programmatic Biological Opinion.

f) Protecting Local Wildlife.

- i) **Bear-proof Containers.** During construction, the contractors shall be required to use bear proof containers for food and trash storage. After construction is complete, the Town shall promote bear proof trash and food storage at the site, and any Town-owned waste receptacles shall be wildlife and bear-proof.
 - ii) **Avoiding Aquatic Nuisance Species.** The Town shall add to its construction specifications that all construction equipment previously used in wet areas must be cleaned, disinfected and completely dried prior to using it in this watershed. This is to avoid the spread of aquatic nuisance species and diseases (e.g. invasive animals and plants, whirling disease, chytrid fungus, etc.).
- 2) **Time schedule.** The Town of Gypsum intends to begin construction in mid-July, summer 2013, assuming all permitting is completed, and expects the project to be completed by end of 2014, with follow up-work scheduled for construction season 2014.
 - 3) **Costs and benefits of the plan.** The costs and benefits are outlined in detail in the Environmental Assessment, Sections 2 and 3.
 - 4) **Basis for analyzing the extent and scope of project impacts.** The Town relied upon the NEPA analysis with the United States Forest Service, and the wetlands permitting process with the Army Corp of Engineers to develop the analysis.
 - 5) **Study design parameters.** Please see the Environmental Assessment, for an overall description the analysis. In addition, design parameters have been undertaken with the dam safety permitting process.
 - 6) **Estimated cost and assignment of development, operation and maintenance of mitigation measures and monitoring plan.** The wetlands mitigation plan expects that the cost to mitigate will be \$104,600, which reflects a 2:1 replacement of wetlands habitat. The estimated costs associated with the implementation of the bypass agreement mentioned in item 2) c), above, is approximately \$15,000.
 - 7) **Categories for impacts to wildlife and habitat.** Please see the various impacts described in the Environmental Assessment, the Biological Evaluation and the Biological Assessment.

IV. Conclusion.

The LEDE Reservoir project presents a broad range of mitigation actions to address the potential fish and wildlife impacts that may be caused by the reservoir expansion. This mitigation plan represents the official state position on Gypsum's LEDE Reservoir expansion. Since the state-adopted approval is not enforceable by itself, Gypsum anticipates that the Army Corps and USFS will determine these mitigation measures are adequate and will impose them within the regulatory requirements in the Section 404 Permit and Special Use Permit, respectively.

37-60-122.2. Fish and wildlife resources - legislative declaration - fish and wildlife resources fund - authorization.

(1) (a) The general assembly hereby recognizes the responsibility of the state for fish and wildlife resources found in and around state waters which are affected by the construction, operation, or maintenance of water diversion, delivery, or storage facilities. The general assembly hereby declares that such fish and wildlife resources are a matter of statewide concern and that impacts on such resources should be mitigated by the project applicants in a reasonable manner. It is the intent of the general assembly that fish and wildlife resources that are affected by the construction, operation, or maintenance of water diversion, delivery, or storage facilities should be mitigated to the extent, and in a manner, that is economically reasonable and maintains a balance between the development of the state's water resources and the protection of the state's fish and wildlife resources.

(b) Except as provided in this paragraph (b), the applicant for any water diversion, delivery, or storage facility which requires an application for a permit, license, or other approval from the United States shall inform the Colorado water conservation board, wildlife commission, and division of wildlife of its application and submit a mitigation proposal pursuant to this section. Exempted from such requirement are the Animas-La Plata project, the Two Forks dam and reservoir project, and the Homestake water project for which definite plan reports and final environmental impact statements have been approved or which are awaiting approval of the same, applicants for site specific dredge and fill permits for operations not requiring construction of a reservoir, and applicants for section 404 federal nationwide permits. If an applicant that is subject to the provisions of this section and the commission agree upon a mitigation plan for the facility, the commission shall forward such agreement to the Colorado water conservation board, and the board shall adopt such agreement at its next meeting as the official state position on the mitigation actions required of the applicant. In all cases the commission shall proceed expeditiously and, no later than sixty days from the applicant's notice, unless extended in writing by the applicant, make its evaluation regarding the probable impact of the proposed facility on fish and wildlife resources and their habitat and to make its recommendation regarding such reasonable mitigation actions as may be needed.

(c) The commission's evaluation and proposed mitigation recommendation shall be transmitted to the Colorado water conservation board. The board within sixty days, unless extended in writing by the applicant, shall either affirm the mitigation recommendation of the commission as the official state position or shall make modifications or additions thereto supported by a memorandum that sets out the basis for any changes made. Whenever modifications or additions are made by the board in the commission's mitigation recommendation, the governor, within sixty days, shall affirm or modify the mitigation recommendation which shall then be the official state position with respect to mitigation. The official state position, established pursuant to this subsection (1) shall be communicated to each federal, state, or other governmental agency from which the applicant must obtain a permit, license, or other approval.

(2) (a) Moneys transferred to the fish and wildlife resources fund pursuant to the provisions of section 37-60-121 (6) are hereby continuously appropriated to the Colorado water conservation board for the purpose of making grants pursuant to this subsection (2) and for offsetting the direct and indirect costs of the board for administering the grants. The interest earned from the investment of the moneys in the fund shall be credited to the fund.

(b) To the extent that the cost of implementing the mitigation recommendation made pursuant to subsection (1) of this section exceeds five percent of the costs of a water diversion, delivery, or storage facility, the board shall, upon the application of the applicant, make a mitigation grant to the applicant. The amount of the grant shall be sufficient to pay for the mitigation recommendation as determined by this section to the extent required above the applicant's five percent share. Any additional enhancement shall be at the discretion and within the means of the board. Under no circumstance shall the total amount of the grant exceed five percent of the construction costs of the project, or be disbursed in installments that exceed seventy percent of the amount of the grant during any fiscal year. Any mitigation cost in excess of ten percent of the construction costs of a project shall be borne by the applicant.

(c) An applicant may apply for an enhancement grant by submitting to the commission and the board an enhancement proposal for enhancing fish and wildlife resources over and above the levels existing without such facilities. The commission shall submit its recommendations on the proposal to the board for its consideration. The board, with the concurrence of the commission, may award a grant for fish and wildlife enhancement. Any such enhancement grant will be shared equally by the Colorado water conservation board's fish and wildlife resources fund and the division of wildlife's wildlife cash funds and other funds available to the division.

(d) For the purpose of this subsection (2), construction costs means the best estimate of the physical construction costs as fixed by the Colorado water conservation board as of the date of the grant application. Costs should be limited to design, engineering and physical construction and will not include the costs of planning, financing, and environmental documentation, mitigation costs, legal expenses, site acquisition or water rights.

(e) Species recovery grants from the fish and wildlife resources fund may be made for the purpose of responding to needs of declining native species and to those species protected under the federal "Endangered Species Act of 1973", 16 U.S.C. sec. 1531, et seq., as amended, in a manner that will carry out the state water policy.

(f) (Deleted by amendment, L. 2001, p. 692, § 28, effective May 30, 2001.)

(3) Decisions relating to the official state mitigation position made pursuant to paragraph (c) of subsection (1) of this section shall not be subject to judicial review.

(4) The board shall distribute mitigation and enhancement grants reasonably and equitably among water basins toward the end that those projects sponsored by beneficiaries east of the continental divide receive fifty percent of the money granted and those projects sponsored by beneficiaries west of the continental divide receive fifty percent of the money granted under this section.

(5) The general assembly hereby recognizes the role instream flows and river restoration projects play in mitigating the effects of the construction, operation, and maintenance of water diversion, delivery, and storage facilities. Therefore, the Colorado water conservation board and the operators of existing water diversion, delivery, or storage facilities projects are hereby authorized to apply directly to the board for moneys for projects to carry out the purposes of this section. The board is authorized to grant such moneys if it finds that such projects will further the purposes of this section.

Source: L. 87: Entire section added, p. 1297, § 5, effective July 13. **L. 97:** (1)(a) and (2)(a) amended and (2)(e) added, p. 1600, § 1, effective June 4. **L. 98:** (2)(f) added, p. 1004, § 5, effective May 27. **L. 99:** (2)(a) amended, p. 628, § 36, effective August 4. **L. 2001:** (2)(a), (2)(c), (2)(e), and (2)(f) amended, p. 692, § 28, effective May 30. **L. 2002:** (5) added, p. 456, § 28, effective May 23.