

DECISION NOTICE

and

FINDING OF NO SIGNIFICANT IMPACT

L.E.D.E. RESERVOIR ENLARGEMENT PROJECT

**USDA Forest Service
Rocky Mountain Region (R2)
White River National Forest
Eagle/Holy Cross Ranger District
Eagle County, Colorado**

Decision Notice
& Finding of No Significant Impact
L.E.D.E. DAM/Reservoir Enlargement Project

Decision and Reasons for the Decision

Background

The Eagle Ranger District of the White River National Forest has received a proposal from the Town of Gypsum, Colorado (the "Town") to enlarge LEDE Reservoir located in Eagle County, Colorado near the headwaters of Gypsum Creek, approximately 18.5 road miles southeast of the Town of Gypsum. The reservoir is located in the White River National Forest and is operated by the Town as part of the water supply system that serves the Town of Gypsum as well as other agricultural obligations within the Gypsum valley. The reservoir and ditch operate under Forest Service Special Use Permit No. EAG152, which is in effect through December 31, 2036 (Appendix A). The Town is proposing to enlarge the reservoir from its current capacity of 431 AF to 947 AF of storage capacity to provide a stable, long-term water supply for Gypsum. This will expand the reservoir surface area from approximately 24.8 surface acres to approximately 32.2 surface acres.

The LEDE water rights were originally decreed in Civil Action No. 963, Eagle County. Additional water rights have been secured by Gypsum over time, and are shown as an attachment in Appendix A. The water rights were decreed for irrigation uses, and provide storage for up to 947 AF in an existing reservoir. The Town of Gypsum purchased LEDE Reservoir and the LEDE Ditch water rights in 2005. Currently, the reservoir is limited to 431 AF of physical capacity.

The dam is presently classified as a "small", "high hazard" dam. The reservoir has aging infrastructure which has been in the ground in excess of 75 years and requires replacement to comply with state dam safety regulations. Replacement of this existing infrastructure will require the removal of nearly all of the existing earth structure. Therefore, since near total reconstruction is required, the Town wishes to enlarge the reservoir to full capacity in order to cost-effectively meet calculated future demand, provide adequate dry-year storage and carry-over supply, protect valuable senior water rights and improve ability to protect in-stream flows on Gypsum Creek.

Part of the water stored in the reservoir is supplied by the LEDE Ditch, which diverts water from Antones Cabin Creek to the reservoir. The ditch is approximately 2800 feet in length with the majority of the ditch currently piped. The existing diversion ditch, dam, and reservoir are located on U.S. Forest Service Land and are operated under the terms of an existing Special Use Permit (see Appendix A). There will be no changes to diversions from Antone's Cabin Creek as a result of this project.

The Town seeks to ensure long-term reservoir capacity and avoid reservoir restrictions, firm-up existing capacity, and increase capacity for LEDE Reservoir to accomplish the following goals:

1. Dam Safety – Provide a reliable and safe reservoir that meets the USFS and Colorado Division of Water Resources current dam safety regulations.
2. Long Term Storage – Provide a long term releasable water storage reservoir for both municipal and agricultural uses on Gypsum Creek that would provide in-basin water without an Eagle River exchange.
3. Protect Water Rights – Protect the Town of Gypsum’s water rights investment and by developing 947 AF of reliable dry year in-basin storage.

A site-specific environmental analysis of alternatives for meeting the purpose and need has been completed. This analysis is documented and the effects disclosed in the L.E.D.E. Dam/Reservoir Enlargement Environmental Assessment (EA), which is referenced throughout this document. The L.E.D.E. Dam/Reservoir Enlargement EA is tiered to the Final Environmental Impact Statement (EIS) for the White River National Forest Land and Resource Management Plan- Revised 2002 (2002 Revised Forest Plan). The EA and Decision Notice incorporate by reference direction contained in the 2002 Revised Forest Plan. The EA and the 2002 Revised Forest Plan are available for review at the Eagle/Holy Cross Ranger District Office located in Eagle, Colorado and at the Forest Supervisor’s Office in Glenwood Springs, Colorado.

Decision

Based upon my review of the alternatives, I have decided to approve the implementation of Alternative 3, which involves bringing the current dam and infrastructure up to the LEDE Reservoir's senior water right decreed capacity of 947 AF. Preliminary analysis showed that the dam height would have to be increased by 19.5 feet and the crest widened to 24.5 feet. The jurisdictional dam height would be approximately 59 feet high and the total height of the structure 65 feet. This dam size allows the full use of all of the originally decreed storage rights and/or the Town’s decreed municipal water rights approximately equal to this value. Table 3-4 from the EA provides a summary of the physical changes to the reservoir.

When compared to the other alternatives considered in the EA, this alternative will serve the public interest by improving aquatic habitat conditions in Gypsum Creek and L.E.D.E. Reservoir, particularly during the late summer and fall period, in a manner that would not be possible without the additional water storage to be provided by the reservoir enlargement. Alternative 3 will also serve to meet important domestic and commercial water supply needs of downstream communities, as documented in the description of the purpose and need in the EA (pages 5 – 6). The mitigation measures summarized on page 49 of the EA and detailed in EA Appendix B, will effectively address the stream health and wetlands impacts associated with the project. The Implementation of this decision will be closely monitored by the Forest Service to ensure compliance with the conditions of this decision and the Forest Plan.

Table Error! No text of specified style in document.-4. Proposed Changes in LEDE Dam and Reservoir Characteristics (516 acre-feet enlargement)

Parameter	Existing reservoir	Change	Proposed Reservoir
Maximum reservoir water surface area	24.8 acres	+7.4 acres	32.2 acres
Maximum dam spillway elevation	9,524.3 feet	+17.7 feet	9,542 feet
Embankment crest elevation	9,529.3 feet	+18.7 feet	9,548 feet
Maximum storage capacity	431 AF	+516 AF	947 AF
Minimum storage capacity	0 AF	0 AF	0 AF
Active capacity	431 AF	+516 AF	947 AF

One of the important considerations in my decision was the impact to 1.91 acres of wetlands that will occur as a result of construction activities and higher water levels in the reservoir. Based upon the purpose and need for the project and the analysis of available alternatives considered in the EA (pages 14 – 18), I find that every reasonable effort has been made to avoid and minimize impacts to the wetlands. The biological and habitat functions of the wetlands, along with its heritage, wildlife, and recreational values, will not be substantially reduced because approximately one-half of the wetland area surveyed adjacent to L.E.D.E. Reservoir will not be affected by the proposed project, and all permanent wetland loss would be fully mitigated off-site.

Mitigation

The enlargement of the dam will result in the inundation of 1.91 acres of wetlands that are located along the shoreline of the existing reservoir. The primary functions of these wetland areas include food chain support, fish and wildlife habitat, and heritage and recreational values. Secondary functions include maintenance of water quality, groundwater recharge and discharge, shoreline anchoring and dissipation of erosive forces.

These wetland impacts will be effectively mitigated. The U.S. Forest Service, U.S. Army Corps of Engineers and the Town of Gypsum have agreed that off-site compensatory mitigation for the anticipated effects of the enlargement would be the best alternative in order to ensure successful mitigation and replacement of functions and values in reasonably close proximity to the impact location. Elevation, shortened growing season and uncertainties posed by dam operations in response to water demands and fluctuating water levels within the basin make on-site mitigation for some functions difficult.

Functions such as fish habitat, groundwater recharge and discharge, shoreline anchoring and dissipation of erosive forces would be replaced by the enlarged reservoir and by new wetland vegetation that would likely become established given the similarities of historic and proposed reservoir operations. In fact, carry-over storage expected from the enlargement would be likely to enhance fisheries in the reservoir and recreational opportunities by creating more stable aquatic habitats. However, analysis of the timing and duration of the expected inundation on the existing wetland plant community types around the reservoir indicates that 1.91 acres of slope and riparian wetlands may be affected either through mortality of plants or shifting of the composition of the wetland plant community.

The wetland mitigation plan, based on the standards set forth by the Clean Water Act, would be finalized in cooperation with the U.S. Army Corps of Engineers during the Individual Permit procurement for the LEDE Reservoir enlargement. It would describe in detail the mitigation activities designed to offset potential wetland impacts and would become part of the project record. According to the functional assessment methodology employed by the USACE, fully implementing the mitigation plan is expected to maintain or improve the functional condition of the restored area, and exceed the goal of no net loss of wetlands on the WRNF. The cumulative impacts of the Proposed Action are therefore expected to maintain or improve wetland function in the watershed context.

In order to offset the effects of stream channel inundation upstream of the reservoir, a bypass flow during spring runoff would be added to the reservoir release schedule. The downstream channel immediately below the reservoir has historically been dry during spring runoff when the reservoir is filling. The proposed releases during this period would range annually between 0.1 to 0.3 cfs, with the exact amount based on annual snowpack and expected basin water yield. This bypass flow during spring runoff, along with the subsequent irrigation-related releases, would be expected to improve stream habitat conditions for fish and aquatic macroinvertebrates, as well as conditions for wetland plant species along upper Gypsum Creek.

Other Alternatives Considered

In addition to the selected alternative, I considered three other alternatives. Detailed descriptions of these alternatives are provided in the L.E.D.E Reservoir Dam/Enlargement Project EA (pages 14 – 17). A summary of the two alternatives considered in detail for the project is given here:

Alternative 1: No Action

Under the No Action alternative, the capacity of LEDE Reservoir would not be increased and there would be no changes in reservoir operations according to the conditions of the current Special Use Permit – EAG152. Water releases from the reservoir would continue to occur as they have historically, on an as-needed basis.

The State Engineer's Office has reclassified the dam as a "small," "High Hazard" dam. Thus, the State requires that (at a minimum) the outlet works and the spillway be reconstructed. The outlet pipe and control valve are showing signs of rust and deterioration, especially in the original section of the pipe, which is at least 78 years old. Reconstruction of the outlet works would entail removal of the majority of the existing dam embankment. The existing spillway is significantly under-sized, lacks the required capacity to accommodate storm flows as required by current regulations, and shows signs of severe erosion. Failure to address these issues would put the reservoir in violation of State Dam Safety regulations, and its storage subject to temporary or permanent spill. This would leave Gypsum without an important water supply source.

Under the existing SUP, the Town has an obligation to maintain the permitted structures in good working order and in accordance with all other regulatory requirements. The existing SUP fully covers the required repairs noted above in order to satisfy current dam safety requirements

imposed by the State. Therefore, the No Action alternative assumes the stated repairs are to be made as noted with no enlargement of capacity and no change to current reservoir operations.

This alternative would not increase the existing storage capacity or yield of the reservoir but would preserve the existing capacity. Because the required reconstruction of the outlet works necessitates physically removing most of the existing dam, and then reconstructing it, the cost of this alternative is exorbitant for relatively small benefit achieved. The lack of increased storage capacity also puts some of the Town's water rights at risk. The operation and maintenance costs of the rehabilitated dam of existing size would be basically equal to the larger alternatives. Therefore, the No Action Alternative does not assist with Gypsum's long term goals for meeting existing and growing public water supply needs, and it risks losing some of Gypsum's water rights. Further, this alternative does not provide the opportunity for future releases to benefit in-stream flow, or for increased depth and dry-year carryover storage.

Alternative 3: Repair dam and Increase Storage to 947 AF +/-

This alternative would meet current dam safety regulations, and enlarge the capacity from 431 AF to 947 AF of storage. Total water surface area would increase from 24.8 acres to 32.2 acres. Enlargement would involve increasing the dam height by 19.5 feet and widening the crest to 24.5 feet to meet current safety regulations. The jurisdictional dam height would then be approximately 59 feet high and the total height of the structure 65 feet. The slopes of the dam would also be flattened to meet current safety standards. This would result in additional fill added to the upstream side of the dam (within the inundated area). Lengthening of the upstream face of the dam would extend the upstream toe of fill approximately 170 feet into the reservoir basin. The increase to 947 AF of storage would also be likely to allow a reasonable amount of carryover storage from wet years to dry years. This carryover storage is becoming increasingly valuable due to the apparent increasing frequency and amplitude of wet and dry year cycles.

The increasing frequency and amplitude of wet and dry year cycles is predicted to worsen as climate change progresses. In addition, this alternative provides the lowest cost per acre foot, and therefore, the best cost/benefit ratio. Storage under this scenario also provides adequate water for long term municipal supplies, protects the Town's senior water rights and allows for releases to assist in preserving in-stream flows. Therefore, this was chosen as the preferred alternative.

Public Involvement

The proposal for the L.E.D.E. Reservoir Enlargement Project was first listed in the January 1, 2010 Schedule of Proposed Actions report for the White River National Forest. A scoping letter for the proposed project was mailed to a list of 35 interested and affected parties on April 22, 2011. A legal notice was published on January 26, 2011 in the Glenwood Springs Post Independent. Comments were requested on the proposed project for a period ending on May 13, 2011. Two (2) written comments were received. One commenter supported the project and had no concerns. The other comment was from the US Army Corps of Engineers; the Forest Service has worked closely with USACE in designing and mitigating this decision to ensure compliance with all applicable regulations and permitting requirements under the jurisdiction of USACE. The interdisciplinary team identified several issues regarding the effects of the proposed action.

Issues are listed and addressed in the EA on pages 13 and pages 31 to 48, and in the specialist's reports supporting the EA, which are part of the Project Record.

The main issues identified by Forest Service Interdisciplinary Team for the Proposed Action included the following:

- Potential impacts on streamflows in Gypsum Creek;
- Potential impacts on wetlands and riparian areas along the existing shoreline of L.E.D.E. Reservoir;
- Potential impact on fishery resources;
- Potential impact on recreational uses of around L.E.D.E. Reservoir;
- Potential impacts on endangered, threatened, candidate and Forest Service sensitive species;

To address these concerns, the Forest Service 1) identified the alternatives described above, 2) developed design criteria in the proposed action, and 3) analyzed the effects of the alternatives.

Finding of No Significant Impact

After considering the environmental effects described in the EA and review of the NEPA criteria for significant effects, I have determined that the proposed action will not have a significant effect on the quality of the human environment considering the context and intensity of impacts (40 CFR 1508.27). Thus, an environmental impact statement will not be prepared. This determination is based on the following factors:

- (a) Context – The physical and biological effects of the proposed action and alternatives described are site-specific actions limited to the analysis area.
 - (b) Intensity – The severity of the environmental effects of the selected alternative and other alternatives were considered in evaluating intensity (40 CFR 1508.27)
1. The proposed action will not have significant effects on the quality of the human environment, either as an individual action, or as part of the cumulative effect of other past, present, and planned actions within this area. My finding of no significant environmental effects is not biased by the beneficial effects of the action.
 2. Based upon the analyses conducted for the EA there would be no significant changes in the configuration or operation of L.E.D.E. Reservoir that would adversely effect public health and safety.
 3. There are no unique characteristics of this area which would set it apart from similar areas where there is experience with this type of project. The proposed reservoir enlargement is not in proximity to historic or cultural sites or resources, park lands, or prime farm lands. It does not contain wilderness areas, wild and scenic rivers, or ecologically critical areas.

4. The effects on the quality of the human environment are not likely to be highly controversial. There were no public concerns in response to the public notice and the proposed action has been reviewed and endorsed by the Colorado Department of Natural Resources, the CWCB and Colorado Parks and Wildlife. There is no known scientific controversy over the impacts of the project.
5. Based upon the operation of the existing reservoir at L.E.D.E. Reservoir, we have considerable experience with the types of activities to be implemented. The effects of the proposed action on the human environment are not uncertain, nor do they involve unique or unknown risks.
6. The proposed action is not precedent setting. It does not establish a precedent for future actions which may have a significant effect of the environment. It does not represent a decision in principle about a future consideration.
7. The cumulative impacts are not significant (see EA pages 31 - 48).
8. This action will not violate Federal, State, and local laws or requirements for the protection of the environment. The action is consistent with the White River National Forest Land and Resource Management Plan
9. There are no known adverse effects to consumers, civil rights groups, minority groups, or women.
10. The proposed action, based on the protection measures and the implementation of the 2002 Revised Forest Plan standards and guidelines, will not violate the Clean Water Act of 1972 (P.L. 92-500, as amended).

Findings Required by Other Laws and Regulations

This decision to approve the proposed Enlargement L.E.D.E. Reservoir is consistent with the intent of the Forest Plan's long term goals and objectives, as detailed in the EA on pages 11-13. The project is in conformance with land and resource management plan standards and incorporates appropriate land and resource management plan guidelines for designated utility corridors and recreation activities in Forest Plan Management Area 4.3 (2002 Forest Plan, page 3-34).

This action complies with the National Historic Preservation Act of 1996 and the Native American Graves Protection and Repatriation Act of 1990. A Forest Service cultural resource survey report was completed in 2009, which concluded that the enlargement of L.E.D.E. Reservoir would not alter or harm any known archaeological site or significant heritage resource. The State Historical Preservation Officer of Colorado, after reviewing the document, concurred with its findings on October 19, 2009. The National Historic Preservation Act (NHPA) requires that if newly discovered cultural resources are identified during project implementation, work in that area must stop and the agency Authorized Officer notified immediately (36 CFR 800.13). The Native American Graves Protection and Repatriation Act (NAGPRA), requires that if inadvertent discovery of Native American Remains or Objects occurs, activity must cease in the

area of discovery, a reasonable effort made to protect the item(s) discovered, and immediate notice made to the Forest Service Authorized Officer, as well as the appropriate Native American group(s) (IV.C.2). Notice may be followed by a 30-day delay (NAGPRA Section 3(d)). Further actions also require compliance under the provisions of NHPA and the Archaeological Resource Protection Act.

The action will not adversely affect any endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973 (ESA). The LEDE Reservoir project would cause a total loss of fewer than 12 acres of suitable lynx habitat in the entire Lynx Analysis Unit (LAU) that would be converted to Non-habitat. Specifically, this loss of habitat would come from construction activities and inundation (permanent loss of 7.37 acres of denning habitat, of 4.27 acres of other habitat, and 0.09 acres of winter foraging habitat). No changes to currently unsuitable lynx habitat would result from this alternative.

A Biological Assessment (BA) was completed to assess potential impacts of the actions on threatened and endangered species and their habitats. The BA concluded that implementation of the decision would result in a “Not Likely to Jeopardize continued Existence or Adversely Modify proposed critical habitat of North American Wolverine.”; “May Affect, But is Not Likely to Adversely Affect” determination for Canada lynx; and “May Affect and Is Likely to Adversely Affect” the Colorado pikeminnow, razorback sucker, bonytail club and humpback chub. A letter of concurrence on the determination was received from the US Fish and Wildlife Service on April 11, 2013.

Due to water depletions associated with the project and associated impacts to the four endangered Colorado River fish, the applicant has signed a Recovery Agreement committing to the Recovery Program and will pay a one-time fee based on the current per acre foot rate specified by the U.S. Fish and Wildlife Service (USFWS) for the depletion from the Upper Colorado River Basin. The USFWS has determined that the applicant’s signature of the Recovery Agreement and one-time payment of the fee for depletions provide assurance that implementation of the Recovery Elements specified in the 2013 Biological Opinion will avoid the likelihood that the depletions from the LEDE Reservoir Enlargement project would result in jeopardy and adverse modification to critical habitat in the Colorado River subbasin within Colorado, Exclusive of the Gunnison River subbasin. The Recovery Agreement was signed by the applicant and executed by USFWS on April 11, 2013.

A Biological Evaluation of Region 2 sensitive species was completed. All determinations for sensitive plants, fish, and terrestrial wildlife were either **no impact**, or **may adversely impact individuals, but not likely to result in a loss of viability in the Planning Area, nor cause a trend toward federal listing**.

Administrative Review or Appeal Opportunities

No comments expressing concerns about this specific proposal were received during the legal comment period other than from the US Army Corps of Engineers. Therefore pursuant to 36 CFR 215.12 and 36 CFR 215.13(c) this decision is not subject to appeal.

Implementation Date

This project can be implemented immediately.

Contact

ADDITIONAL INFORMATION AND CONTACT PERSONS

For additional information concerning this decision, contact:

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RESPONSIBLE OFFICIAL:



SCOTT FITZWILLIAMS
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4/24/13
Date

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