



**DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
CIVIL WORKS
108 ARMY PENTAGON
WASHINGTON DC 20310-0108**

MAY 29 2014

**MEMORANDUM FOR DEPUTY COMMANDING GENERAL FOR CIVIL AND
EMERGENCY OPERATIONS**

SUBJECT: Chatfield Reservoir, Colorado, Storage Reallocation Project

I am responding to the memorandum dated April 11, 2014 from the Director of Civil Works, which requested approval of the Feasibility Report and Environmental Impact Statement (FR/EIS) dated July 2013, with Addendum Number 1 dated March 2014, for the Chatfield Reservoir, Colorado, Storage Reallocation Project. The FR/EIS was prepared in response to a request from the Colorado Department of Natural Resources (CDNR) to evaluate the use of Chatfield Reservoir for water supply. The CDNR, acting through the Colorado Water Conservation Board, is the non-Federal sponsor for the FR/EIS study, and will be the sponsor for implementation of the reallocation project.

The storage reallocation project was authorized in Section 808 of the Water Resources Development Act (WRDA) of 1986, as amended by Section 3042 of WRDA 2007 (P.L. 110-114), which authorizes the Secretary of the Army to reassign existing storage at Chatfield Reservoir to joint flood control/conservation purposes, including storage for municipal and industrial (M&I) water supply, agriculture, environmental restoration, and recreation and fishery habitat protection and enhancement. Additionally, Section 116 of Division C, of the Omnibus Appropriations Act of 2009 authorizes the CDNR to perform facility modifications and mitigation for the project, and directs the Secretary of the Army to collaborate with the CDNR and local interests to determine storage cost repayments that reflect the limited reliability of the reallocated storage space.

The FR/EIS states that the selected plan is the least cost alternative, the National Economic Development (NED) plan and the sponsor-supported plan. It provides 20,600 Acre Feet (AF) of storage in Chatfield Reservoir for M&I water supply and other purposes including agriculture, environmental restoration, and recreation and fishery habitat protection and enhancement. The storage will be provided through a reallocation from the exclusive flood control pool to a joint conservation/flood control pool. This raises the conservation pool level 12 feet and provides an average year yield of 8,539 AF/year of M&I water supply at less cost than other alternatives for water supply. The plan meets all federal NED and Corps planning goals along with the Corps Environmental Operating Principles. In addition to water supply benefits, the report states that the project does not reduce the flood control capabilities at Chatfield and the Tri-Lakes system. Due to the pool raise and more frequent fluctuations in pool elevation, significant modifications to relocate and replace existing recreation facilities, resources, and project roads will be implemented as part of the project.

The plan includes environmental mitigation that will replace or compensate for the loss of habitat on Chatfield project lands inundated by the pool raise, including wetlands, bird habitat and habitat (including designated critical habitat) of the federally-threatened Preble's meadow jumping mouse. The selected plan includes monitoring for up to five years of the environmental mitigation features and adaptive management to ensure mitigation success.

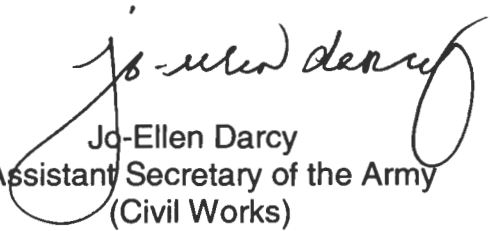
Guidance issued by this office on January 22, 2009 granted an exception to the standard Corps policy for calculating the updated cost of storage (UCS). The waiver granted a one-time reduction in the estimated UCS equal to 41 percent of the total UCS. This reduction more equitably reflected the reliability of inflows and fluctuations in yield that limit the availability of water that is stored in the reservoir and withdrawn by the M&I water users. At Fiscal Year 2014 (FY14) price levels, the cost of this storage when the reduction is applied is \$16,285,400. This amount may be paid in one up-front lump sum, or amortized over 30 years for an annual cost of \$844,350 at FY14 price levels using the federal water supply discount rate of 3.125 percent (Economic Guidance Memorandum 14-01).

In addition to the cost of storage and in accordance with the authorization, costs allocated to reallocated storage are funded at 100 percent non-federal expense. This includes costs of the water supply infrastructure, recreation modifications, and environmental mitigation. At FY14 price levels, the total first costs to implement the selected plan is \$124,152,700, of which \$59,335,900 are environmental mitigation costs, \$47,736,100 are recreation modifications, \$795,300 are modifications to the reservoir and infrastructure, and the aforementioned \$16,285,400 represents the cost of storage over 30 years. In addition to these costs, the present value of operations, maintenance, repair, rehabilitation, and replacement (OMRR&R) over 50 years is estimated to be \$59,262,600 making the present value of all project implementation costs to be \$183,415,400. At FY14 price levels and federal FY14 discount rate of 3.5 percent over a 50-year period of analysis, annual costs are estimated to be \$7,800,000, annual benefits are estimated at \$8,400,000, net benefits are \$600,000 and the project benefit cost ratio is 1.08.

In reviewing the report and supplemental materials, including the Director's Report, our office, in conjunction with Army General Counsel, has identified the attached concerns (Attachment A) that need to be addressed by the Corps in an updated report addendum that will clarify each of these issues. This should be completed prior to the Corps submitting the water supply agreement for review and approval.

Based on the information provided in the Corps submittal package, and subject to the aforementioned revisions, I concur with your finding that the proposed reallocation project is technically sound, environmentally acceptable and economically justified. Additionally, I have determined that the facility modifications and mitigation work proposed to be performed by the non-federal sponsor under the authority of Section 116 of Division C of the Omnibus Appropriations Act of 2009 (P.L. 111-8) are integral to the project. I approve the Feasibility Report and Environmental Impact Statement (FR/EIS)

dated July 2013, with Addendum Number 1 dated March 2014, for the Chatfield Reservoir, Colorado, Storage Reallocation Project. I am signing the Record of Decision (enclosed) to signify that this project is compliant with the National Environmental Policy Act. I will review the water storage agreement for approval in a separate action, following the review and official transmittal by Corps Headquarters.



Jo-Ellen Darcy
Assistant Secretary of the Army
(Civil Works)

Enclosures

2 Enclosures

1. Record of Decision, dated May 29, 2014
2. Attachment A, May 28, 2014

RECORD OF DECISION

CHATFIELD RESERVOIR, COLORADO STORAGE REALLOCATION PROJECT

The Chatfield Reservoir Storage Reallocation Final Integrated Feasibility Report and Environmental Impact Statement (FR/EIS), dated July 2013, with Addendum No. 1, dated March 2014, addresses the increasing water demand in the Denver, Colorado metropolitan area. The report recommends increasing the availability of water through the reallocation of existing storage in the Chatfield Reservoir to municipal and industrial (M&I) water supply and other purposes to help meet a portion of existing and future water needs. Based on the FR/EIS, the reviews of other federal, state, and local agencies, input from the public and the review by my staff, I find the plan recommended by the U.S. Army Corps of Engineers to be technically feasible, economically justified, environmentally acceptable and in the public interest. Thus, I approve the Chatfield Reservoir Storage Reallocation Project for implementation.

The recommended plan is Alternative 3, the reallocation of 20,600 acre-feet (AF) of Chatfield Reservoir storage to provide an average year yield of approximately 8,539 AF of water. It is the national economic development plan and the environmentally preferable alternative. The plan consists of the following features:

a. Alternative 3 provides 20,600 AF of storage in Chatfield Reservoir between the elevations 5,432 above mean sea level (msl) and 5,444 msl through a reallocation from the exclusive flood control pool to a joint conservation/flood control pool for M&I water supply and other purposes including agriculture, environmental restoration, recreation, and fishery habitat protection and enhancement. The reallocation raises the conservation pool level 12 feet. Implementation of the pool rise and use of the reallocated storage space would occur in increments as the recreation modifications and the environmental mitigation features are completed. The reservoir operations plan would be modified.

b. The existing recreation facilities, resources and roads that would be affected by the raising of the pool would be replaced.

c. A mitigation plan would compensate for the loss of habitat inundated by the raising of the pool. Mitigation features would be located on 165 acres of Chatfield Project lands; off-site on 888 acres along the West Plum Creek Critical Habitat Unit (CHU) for Preble's mouse; and off-site along 4.5 stream miles of Sugar Creek in the Pike National Forest within the Upper South Platte CHU. A monitoring and adaptive management plan has been included to ensure the adequacy of the mitigation plan.

d. Under the authority of Section 116 of Division C of the Omnibus Appropriations Act of 2009 (Public Law 111-8), the State of Colorado, would implement the recreation modifications and the environmental mitigation features under the oversight of the Corps.

The FR/EIS evaluated various alternatives to increase availability of water in the greater Denver, Colorado area. In addition to Alternative 3, the recommended plan, three other alternatives, all providing an average year yield of 8,539 AF, were identified and evaluated in detail in the FR/EIS, which is incorporated by reference. Alternative 1, the "no action plan" or the "most likely without project condition", included construction of a new Penley Reservoir combined with gravel pit storage, and did not include reallocation of the Chatfield Reservoir. Alternative 2 included non-tributary ground water (NTGW) combined with gravel pit storage, and no reallocation of the Chatfield reservoir. Alternative 4 included reallocation of 7,700 acre-feet at the Chatfield reservoir combined with NTGW and gravel pit storage.

The draft FR/EIS was circulated for public review between June 8, 2012, and September 6, 2012. A total of 903 comment letters were received on the draft report. All substantive draft FR/EIS comments were responded to in the final FR/EIS. Two hundred and one comments were received on the final FR/EIS during the public comment period from August 2, 2013 to September 3, 2013. All final FR/EIS comments were reviewed and considered.

The recommended plan incorporates all practicable means to avoid or minimize adverse environmental effects, and the unavoidable impacts are mitigated. The U.S. Fish and Wildlife Service provided final biological opinions on impacts to Preble's meadow jumping mouse and to other federally listed species in Colorado and downstream in the central and lower Platte River basin. Terms and Conditions to implement the Reasonable and Prudent Measures for Preble's mouse include that the Corps will ensure the formal adoption and implementation of the proposed conservation measures, provide annual monitoring reports, and report encounters (dead, injured, or hibernating) with the Preble's mouse.

Technical and economic criteria used in the formulation of alternative plans were those specified in the Water Resource Council's Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies. All applicable laws, executive orders, regulations and state and local government plans were considered in the evaluation of alternatives. Based on review of these evaluations, I find that the benefits of the Chatfield Storage Reallocation Project outweigh the costs and any adverse effects. This Record of Decision completes the National Environmental Policy Act compliance process for the project.

May 29, 2014
Date

Jo-Ellen Darcy
Jo-Ellen Darcy
Assistant Secretary of the Army
(Civil Works)

Attachment A
ASACW and AOGC comments on Chatfield Report that need to be addressed in a
report addendum

1. The reallocation report in numerous places discusses the non-federal cost share and credit for non-federal work. Additionally, the report repeatedly uses the term section 116 credit and refers to the general cost sharing provisions of section 103 as authority. As was pointed out previously, this language is confusing and may lead some to infer that the federal government is cost sharing this water storage reallocation and that the non-federals should be receiving credit for their work. In light of the language in the WRDA 2014 which when enacted would permit the transfer of credit among projects is of concern with the use of this language in this report.

For clarification purposes: Section 808 of WRDA 1986, section 116 of Omnibus appropriations Act of 2009, and the Water Supply Act of 1958 apply to the subject reallocation, not section 103 of WRDA 1986. Further, there is no credit for work. Section 116 authorizes the Colorado Department of Natural Resources to perform modifications of Chatfield Reservoir and any required mitigation which results from implementing the reallocation.

We understand that the report has been reworked a number of times, however, it is still not appropriate for the report to misconstrue the nature of the relationship and the costs. At a minimum, the report should remove the use of the word credit and cost share. For example:

****ES-1:** "The recreation modifications and environmental mitigation work are additionally authorized by Section 103(c)(2) WRDA 1986, requiring non-federal payment of 100 percent of the costs of municipal and industrial water supply projects, and this work will be cost shared pursuant to that section." Section 103 does not authorize any work. Instead, it establishes general cost sharing for the construction of projects and assigned by project purposes. The Chatfield project is already constructed and Section 808 of WRDA 1986 is the specific provision that applies. See also, page 1.4

****1-9:** "in accordance with implementation guidance for Section 116 of the Omnibus appropriations Act of 2009, the Secretary must make a determination whether in-kind credits that would be afforded to CDNR are integral to the reallocation project." Neither section 116 nor the implementation guidance refer to the work as in-kind or discusses crediting the water user for any of this work.

****5-26:** "all work is eligible to be performed by CDNR, because it is within the non-Federal cost share.... work might be eligible for Section 116 credit. The acceptance of the work and the affording of credit toward the non-federal share will be determined by...."

****6-9:** "Off-site mitigation will not receive credit until the land has been protected in perpetuity."

Encl 2

**See also, pages 7-1 through 7-5.

2. The report does not accurately describe the relationship on page 5-8, 5-17, 5-24, 6-9, 7-1 through 7-6 as well as the requirements. The Army is entering in the water storage agreement with Colorado and not the particular water providers, as the term is used in the report and in the proposed agreement. The report indicates that "OMRR&R would be paid in perpetuity beyond the 30 years for cost of storage repayment." The water user would be responsible for OMRR&R immediately, not just after the 30 years. Further the report indicates that "Funds for Corps work on the Modifications to Corps Project and Operations implementation items will be paid from the water providers' escrow account directly to CENWO as part of the project construction phase." This is not what the draft storage agreement indicates -- state of Colorado would be doing the work and not the Corps and the only Corps work would be oversight. Finally, this page indicates that the water providers would be responsible for infrastructure, environmental mitigation, and recreation modifications. This is also not true, per section 116 Colorado Department of Natural Resources (not the providers) is authorized to perform the modifications and required mitigation. In addition, during the report development the Corps did have a number of discussions with the state and the providers to determine the appropriate relationship. Those details have been worked out and this (and similar statements) should be removed and the actual relationship should be accurately reflected within the report and the appendices.

3. In various sections in the report, including the description of the selected plan (see 6.1, 6.25, Appendix N and Appendix CC), the Corps discusses "other additional measures which the water providers and the Colorado Department of Natural Resource are developing beyond the federal reallocation project." In past discussions this office was advised that these additional measures are not a part of the reallocation or the Chatfield project and that these sections are not pertinent to the reallocation. Since these measures are not pertinent to the reallocation and not necessary for this office's review, then this discussion should be removed from the report. Removal from the reallocation report will make it clear that approval of the reallocation report may mean approval, agreement, or acceptance of these additional measures. Any modification of this project would, in addition to any other required permit, need to obtain 408 permit/approval report.

4. Addendum No. 1 March 2014, On page 5, Tables ES-2 show annual financial costs and in Table 2-10 annual NED costs and benefits are shown. On page 8, Table 5-12 NED costs and benefits are shown (for alternatives 2 and 3). On pages 1-2, 2 sets of economic summary numbers (financial and NED) with 2 different BCR's are presented (as does the transmittal memo dated April 11, 2014 on page 5-6, Section 8). A footnote or additional explanation is needed to clarify the difference between financial and NED costs and why NED cost exclude the cost of storage.