

January 11, 2007

Rick Brown  
Colorado Water Conservation Board  
1313 Sherman Street, Room 721  
Denver, Colorado 80203

Dear Rick:

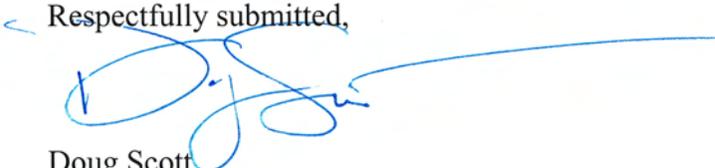
The Metro Basin Roundtable underwent an evaluation and approval process of the Chatfield Reservoir Reallocation EIS/FR project at our January 10, 2007 monthly meeting. The evaluation included the review of a project abstract that contained a summary of the project, definition of project scope and budget, identification of project beneficiaries, and an overview of how this project provides for future water supply, environmental and recreational needs of the Metro Basin.

A motion was made and seconded to approve the project as requested, which requires an allocation of \$103,000 for the project to The Greenway Foundation from the Metro Basin account using the Water Supply Reserve Account.

The motion carried based on a voting quorum with 17 members voting for the motion with none in opposition. As our meeting minutes indicate, I chaired the presentation, discussion, and subsequent motion and vote, therefore my signature is provided below.

Please do not hesitate to contact the undersigned with any questions that you may have regarding the Metro Basin Roundtable meeting or our level of support for this worthy project.

Respectfully submitted,



Doug Scott  
Chairman  
Metro Basin Roundtable



**COLORADO WATER CONSERVATION BOARD**



**WATER SUPPLY RESERVE ACCOUNT  
2006-2007 GRANT APPLICATION FORM**

Chatfield Reservoir Reallocation EIS/FR

**Name of Water Activity/Project**

**River Basin Location**

\$ 130,000  
  
\$ 27,000 from SP  
\$ 103,000 from Metro

Basin Accounts

Yes

Statewide Account

No

Amount of Funds Requested

Please Check Applicable Box

Approval Letter Signed By  
Roundtable Chair and  
Description of Results of  
Evaluation and Approval  
Process

**\* For the Basin Account, the Application Deadline is 60 Days Prior to the Bimonthly CWCB meeting. The CWCB meetings are posted at [www.cwcb.state.co.us](http://www.cwcb.state.co.us) and are generally the third week of the month.**

**\* For the Statewide Account, the Application Deadline is 60 Days Prior to the March and September CWCB Board Meetings.**

**\* In completing the application you may attach additional sheets if the form does not provide adequate space. If additional sheets are attached please be sure to reference the section number of the application that you are addressing (i.e., A.1. etc.).**

**Instructions:** This application form should be emailed, typed, or printed neatly. The Water Supply Reserve Account Criteria and Guidelines can be found at <http://cwcb.state.co.us/IWMD/>. **The criteria and guidelines should be reviewed and followed when completing this application.** You may attach additional sheets as necessary to fully answer any question, or to provide additional information that you feel would be helpful in evaluating this application. Include with your application a cover letter summarizing your request for a grant. If you have difficulty with any part of the application, contact Rick Brown of the Intrastate Water Management and Development (Colorado Water Conservation Board) for assistance, at (303) 866-3514 or email Rick at [rick.brown@state.co.us](mailto:rick.brown@state.co.us).

Generally, the applicant is also the prospective owner and sponsor of the proposed water activity. If this is not the case, contact the Rick Brown before completing this application.

# Water Supply Reserve Account – Grant Application Form

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## Part A. - Description of the Applicant (Project Sponsor or Owner);

1. Applicant Name(s):

Mailing address:

Taxpayer ID#:  Email address:

Phone Numbers: Business:

Home:

Fax:

2. Person to contact regarding this application if different from above:

Name:

Position/Title

3. Provide a brief description of your organization below: Refer to Part 2 of criteria and guidance for required Information. Attach additional sheet(s) as needed.

Since 1974, the Greenway Foundation has led the effort to enhance and preserve the South Platte River and its tributaries throughout the Denver metropolitan area. Over the last three decades, over \$60 million of environmental and recreational amenities have been added to these valuable natural resources. The Greenway Foundation is a Colorado non-profit, formed as a 501(c(3)) in 1976. In fulfillment of our mission, The Greenway Foundation maintains an endowment of \$5 million that is used to fund our programs and staff activities.

For this funding request, the Greenway Foundation is acting on behalf of our Chatfield Reservoir Reallocation project partners including:

- City of Aurora
- Castle Pines Metro District
- Town of Castle Rock
- Center of Colorado Water Conservancy District
- Colorado State Parks
- Parker Water & Sanitation District
- Roxborough Metro District
- Western Mutual Ditch Company
- City of Brighton
- Castle Pines North Metro District
- Centennial Water & Sanitation District
- Central Colorado Water Conservancy District
- Denver Botanical Gardens
- Perry Park Special Utility District
- South Metro Water Supply Authority

(see #9 for rest of response)

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## Part B. - Description of the Water Activity – Please Refer to Criteria and Guidance Document for Eligibly Criteria

1. Name of water activity/project:

Chatfield Reservoir Reallocation Environmental Impact Statement and Feasibility Report

Studies and analysis of structural water project (Study relates to determining the feasibility of reallocating 20,600 AF of flood control storage to other purposes including municipal and industrial water supply, agriculture, and recreation and fishery habitat protection and enhancement).

2. What is the purpose of this grant application? Check one.

Environmental compliance and feasibility study

Technical assistance regarding permitting, feasibility studies, and environmental compliance

Studies or analysis of structural, nonstructural, consumptive, nonconsumptive water needs, projects, or activities (Please specify)

Structural and/or nonstructural water project or activity

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3. Please provide an overview of water project or activity to be funded including – type of activity, statement of what the activity is intended to accomplish, the need for the activity, the problems and opportunities to be addressed, expectations of the participants, why the activity is important, the service area or geographic location, and any relevant issues etc. Please include any relevant Tabor issues. Please refer to Part 2 of criteria and guidance document for additional detail on information to include. Attach additional sheets as needed.

Twenty one years ago the State of Colorado requested that the Federal government, through the US Army Corps of Engineers (USACE), evaluate the efficient use of Chatfield Reservoir to meet part of the increasing demand for water supply in the South Platte River basin. Based on recently completed analysis of antecedent flood conditions, it appears that up to 20,600 acre-feet of storage in Chatfield could be reallocated from joint flood control-conservation purposes to other authorized purposes including municipal and industrial water supply, agriculture, and recreation and fishery habitat protection and enhancement (Section 808, WRDA 1986).

Procedurally, the USACE must complete an environmental impact statement and feasibility report (EIS/FR) to justify the project and receive project approval from the Assistant Secretary of the Army. The EIS/FR is cost shared with the local non-federal sponsor (the CWBC) 50:50 through a feasibility study cost share agreement (FCSA).

Funding for the EIS/FR has occurred steadily since the FCSA was executed in 2004, with a total of approximately \$3.5 million being spent by the combination of local and federal entities. The CWCB and the local water users have been using various resources to pay for the local share of the project, including state and local water user cash and in-kind services. On the other hand, the USACE share is provided through congressional appropriations.

The USACE estimates that over \$620,000 is needed to complete the EIS/FR, which will culminate in the signing of a Record of Decision (ROD) next summer. In the short-term, the EIS/FR Preliminary Draft Report is due out in second quarter of this calendar year, and the Draft is due out in the fourth quarter of this calendar year. Keeping these tasks on schedule is vital to the ROD being prepared and signed prior to a new administration being brought in at the year of 2008, since the change of administration will further delay the project approvals, which further impact local water user capacity to plan and pursue alternative water supply sources.

Unfortunately, federal funding for the USACE share of the project is at risk due to the other funding demands for USAC programs (e.g., Katrina, Iraq) and the 109<sup>th</sup> Congress's inability to pass a FY07 budget. To compensate for the federal government's funding shortcomings, the CWCB and the local water users have waived their in-kind credits on the project, such that they can immediately contribute \$330,000 in cash to keep the EIS/FR project funding continuous through this federal fiscal year. Although the local funding efforts have produced \$200,000, there is currently a \$130,000 funding gap that needs to be filled in the relatively short term to maintain continuity in the EIS/FR Project funding (otherwise, the USACE contractor would have to stop work on the EIS/FR which would cause unwanted delays, and potentially compromise getting a decision under the current administration).

This funding request, which has received unanimous support and approval (excepting for abstentions from selected water users themselves who declined to vote) from both the South Platte and Metro Basin Round Tables, would support preparation of both the preliminary draft and draft EIS/FR. **The letters of support are attached.**

**The map of the Denver Metro Area indicating the location of the 15 entities that will be storing water in Chatfield Reservoir if the reallocation of storage is approved is attached.** The 15 entities represent nearly 600,000 residential water customers in the Colorado. Additionally, Denver Water and various other water users in the Denver Metro area would receive indirect benefits related to the Chatfield Reservoir reallocation associated with better water supply sustainability, improved operations, and reduced competition for other water supply projects. In all, the Chatfield Reservoir Reallocation project would directly or indirectly impact at least 25% of the state's population.

In addition, the Chatfield Reservoir Reallocation project would benefit Adams, Weld and Morgan county farms and farmers currently receiving direct surface water or well augmentation water from Western Mutual Ditch and Central Colorado Water Conservancy District. Combined, these two entities provide water that irrigated over 50,000 acres in the lower South Platte.

Finally, retimed releases from Chatfield Reservoir will provide both recreational and environmental benefits to the 53-miles downstream of the reservoir. Current reservoir spills of the water that will be stored occur during peak flow conditions when recreational opportunities are hindered and fishery habitats are threatened by high flows. The re-timing of these flood flows will allow for controlled releases to occur during more opportune times, such as in the winter when river flows are at their lowest and summer time weekends when river recreational demands peak.

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4. Please provide a brief narrative of any related or relevant previous studies. Attach additional sheets as needed.

The USACE performed a general investigation study of the Chatfield Reservoir Reallocation. As a result of that study, the USACE found that there is federal interest in determining whether or not the storage in Chatfield can be reallocated for other authorized purposes including municipal and industrial water supply, agriculture, and recreation and fishery habitat protection and enhancement.

One of the first subsequent studies that need to occur was the antecedent flood study, which was used to determine that the level of flood protection provided by Chatfield Reservoir would not be compromised by the reallocation of storage. That study was accepted and approved by the USACE Assistant Secretary of the Army in February 2005.

Western Resource Advocates, in cooperation with Trout Unlimited and the Colorado Environmental Coalition, performed an analysis of potential area water projects in 2005 looking to estimate potential yield from local and regional storage facilities. Based on their work, the reallocation of Chatfield Reservoir was estimated to have a yield of 7,000 AF based on storing in-basin snowmelt and rainfall runoff that currently is spilled but would be stored using the conditional storage rights held by the 15 water users.

# Water Supply Reserve Account – Grant Application Form

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5. Please provide a copy of the proposed scope of work. Please refer to Part 2 of the criteria and guidance document for detailed requirements. Attach additional sheets as needed.

**The proposed scope of work, which is the current USACE scope of work for the EIS/FR is attached.** This project is a subset of the overall EIS/FR including the preparation of the preliminary draft of the EIS/FR and the draft EIS/FR.

The goals of the study are to determine the feasibility of reallocating storage in Chatfield Reservoir. Of particular importance is the determination of three issues:

- The capital cost of storage (which relates to the cost to the local water users to reimburse the federal government for the original cost to build Chatfield Reservoir)
- The feasibility and cost of mitigating the impacts of the increased storage on the recreational facilities in the reservoir.
- The feasibility and cost of mitigating the impacts of the increased storage on the environment within the reservoir.

The EIS/FR will be crafted to evaluate these issues and determine the feasibility and cost of storage and mitigation. Based on the EIS identified "preferred alternative" and the FR estimated costs, and the public review comments and responses, the Assistant Secretary of the Army will be provided with the information needed to execute a ROD.

Once the ROD has been executed, the CWCB and the USACE, along with the local water users and other project stakeholders will move toward developing an operational plan for the reservoir and executing water contracts. The CWCB and the local water users will also move forward to design and implement the required mitigation activities.

The funds provided from the Water Supply Reserve Account will be provided from the Greenway to the CWCB for distribution to the USACE Omaha, who will in turn utilize the funds to allocate funds both for their costs and to keep their contractor TetraTech working without delay over the next 6 months. To date the CWCB and local water users have contributed over \$1.9 million dollars in cash and in-kind services to the EIS/FR. The federal government has contributed similar funding to the effort such that the project expenditures to date are \$3,970,223.

Given the recent inability of the 109<sup>th</sup> congress to pass a budget for this federal fiscal year, the CWCB has had to forego in-kind credits on the local share of the project funding for \$330,000. The local water user group has been providing funds to the CWCB passed on a \$10/AF invoice each water user received in December. The cash contributions related to this recent invoicing effort will provide funding for \$206,000 of the required funding, such that the \$130,000 requested herein will fill the remainder of the short-term funding gap.

The Water Supply Reserve Account monies for both basin accounts will be contributed through the Greenway Foundation to the CWCB in much the same way that previous funding has been contributed to offset the credit CWCB had received in the past of in-kind contributions. The cash will be infused directly into the USACE general investigations account for use on the Chatfield Reallocation EIS/FR.

The attached scope of work is currently being conducted by TetraTech and has an expected cost of \$898,790.79. The USACE has funded this scope of work under contract DACW45-03-C-0016 to a level of \$529,165.38 as of August 2006. The \$130,000 will be used to help fill the \$369,625.41 between that funded and that needed to complete the EIS/FR.

The key scope activity that will be performed utilizing the Water Supply Reserve Account will be Task 5, and more specifically the screening and refinement of alternative reallocation plans and the preparation of the Preliminary Draft EIS/FR, both discussed on page 9 of 11 of the scope of work.

These tasks are expected to be completed by May 31, 2007.

# Water Supply Reserve Account – Grant Application Form

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6. List the names and addresses of any technical or legal consultants retained to represent the applicant or to conduct investigations for the water activity/project.

Name	Address/Phone Number
Eric Laux USACE Omaha	CENWO-PM-AP 106 South 15 <sup>th</sup> Street Omaha, NE 68102-1618 402-221-7186
Gary Drendel TetraTech	143 Union Boulevard, Suite 1010 Lakewood, CO 80228-1875 303-980-3546
Tracy Bouvette Great Western Institute	9486 Chesapeake Ct. Littleton, CO 80126 720.641.6136

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7. Water Availability and Sustainability – this information is needed to assess the viability and effectiveness of the water project or activity. Please provide a description of each water supply source to be utilized for, or the water body to be affected by, the water activity. For water supply sources being utilized, describe its location, yield, extent of development, and water right status. For water bodies being affected, describe its location, extent of development, and the expected effect of the water activity on the water body, in either case, the analysis should take into consideration a reasonable range of hydrologic variation. Attach additional sheets as needed.

The source of the Chatfield Reservoir reallocation water supply will be currently unstored snowmelt and rainfall runoff that originates in the South Platte River Basin but is spilled at the reservoir given the lack of available storage space. The reallocation project will end in the execution of a record of decision with the USACE that will allow the 15 entities to store their conditional water rights in the reallocated storage space in Chatfield, not to exceed 20,600 AF, without adding any additional height or size to the dam. Based on recent work performed by Western Resource Advocates, and supported by analyses conducted by the Denver Water Department, the potential yield of the project is estimated to be 7,000 AF. The conditional water rights held by the 15 local water entities date back into 1984.

8. If you have not specifically and fully addressed the Evaluation Criteria found in Part 3 of the criteria and guidance document please provide additional detail here. Attach additional sheet(s) if needed.

# Water Supply Reserve Account – Grant Application Form

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9. Additional Information – If you feel you would like to add any additional pertinent information please feel free to do so here. Attach additional sheets as needed.

(continued from #3)

These project partners listed in #3 represent the upstream and downstream interests in the project. Metropolitan Wastewater Reclamation District, City and County of Denver, City of Littleton, Denver Water and the Greenway Foundation represent the instream interests. All of these parties and the Colorado Water Conservation Board have contributed funds to the project being proposed for use of Water Supply Reserve Account Funding.

The Greenway Foundation maintains 1 full-time and 1 part-time staff members. We are working closely with Great Western Institute and Capitol Representatives to provide organizational, policy, and communications services to the above listed stakeholder group.

**The Greenway Foundation's Articles of Incorporation and By-Laws are attached.**

The above statements are true to the best of my knowledge:

**Signature of Applicant:**



**Print Applicant's Name:** Jeff Shoemaker

**Project Title:** Chatfield Reservoir Reallocation EIS/FR

**Return this application to:**

Mr. Rick Brown  
Intrastate Water Management and Development Section  
COLORADO WATER CONSERVATION BOARD  
1580 Logan Street, Suite 600  
Denver, CO 80203

To submit applications by Email, send to: [rick.brown@state.co.us](mailto:rick.brown@state.co.us)

## Water Supply Reserve Account – Grant Application Form

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### Reference Information

The following information is available via the internet. The reference information provides additional detail and background information regarding these criteria and guidelines and water policy issues affecting our state.

#### Colorado Water Conservation Board Policies

Loan and Grant policies and information are available at - <http://cwcb.state.co.us/Finance/>

Water Supply Reserve Account Criteria and Guidelines –

[http://cwcb.state.co.us/IWMD/tools.htm#Water\\_Supply\\_Reserve\\_Account](http://cwcb.state.co.us/IWMD/tools.htm#Water_Supply_Reserve_Account)

#### Interbasin Compact Committee and Basin Roundtables

Interbasin Compact Committee By-laws and Charter –

<http://dnr.state.co.us/Home/ColoradoWaterforthe21stCentury/Interbasin+Compact+Committee/IbccHomePage.htm>

Basin Roundtable By-laws –

<http://dnr.state.co.us/Home/ColoradoWaterforthe21stCentury/IbccHome.htm>

#### Legislation

House Bill 05-1177 - Also known as the Water for the 21<sup>st</sup> Century Act –

<http://cwcb.state.co.us/IWMD/statutes.htm>

House Bill 06-1400 – Adopted the Interbasin Compact Committee Charter –

<http://cwcb.state.co.us/IWMD/statutes.htm>

Senate Bill 06-179 – Created the Water Supply Reserve Account –

<http://cwcb.state.co.us/IWMD/statutes.htm>

#### Statewide Water Supply Initiative

General Information - <http://cwcb.state.co.us/IWMD/>

Phase 1 Report - <http://cwcb.state.co.us/IWMD/PhaseIReport.htm>

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE J	PAGE OF PAGES 1   11
2. AMENDMENT/MODIFICATION NO. P00021	3. EFFECTIVE DATE 31-Aug-2006	4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO.(If applicable)
6. ISSUED BY U.S. ARMY CORPS OF ENGINEERS, OMAHA DIST CONTRACTING OFFICE 106 SOUTH 15TH STREET OMAHA NE 68102-1618	CODE W9128F	7. ADMINISTERED BY (If other than item 6) U.S. ARMY CORPS OF ENGINEERS, OMAHA DIST CONTRACTING DIVISION 106 S 15TH STREET FEDERAL BLDG. OMAHA NE 68102-1618		CODE DACW45
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) TETRA TECH EC, INC GARY DRENDEL 143 UNION BLVD STE 1010 LAKEWOOD CO 80228-1829			9A. AMENDMENT OF SOLICITATION NO.	
			9B. DATED (SEE ITEM 11)	
			X 10A. MOD. OF CONTRACT/ORDER NO. DACW45-03-C-0016	
			X 10B. DATED (SEE ITEM 13) 30-Jul-2003	
CODE 3ECT6	FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS				
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.				
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule				
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.				
X A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. FAR 52.243-1 ALT III				
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).				
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:				
D. OTHER (Specify type of modification and authority)				
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.				
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: g6ct3tsm06470 CHATFIELD, CHERRY CREEK AND BEAR CREEK, COLORADO STORAGE REALLOCATION STUDY. THE CONTRACT SPECIALIST IS TRACEY S. MCKAY AT tracey.s.mckay@usace.army.mil or 402-221-4105.  THIS MODIFICATION IS ISSUED TO INCORPORATE THE REVISED SOW DATED 12 JULY 2006 AND CHANGE THE COMPLETION DATE FROM 31 AUG 2006 TO 31 DEC 2007. TETRA-TECH EC, INC.'S REVISED PROPOSAL DATED 29 AUG 2006 IN THE AMOUNT OF \$132,165.29 IS ACCEPTED AS A REASONABLE COST FOR THE ADDITIONAL WORK INCORPORATED INTO THE REVISED SOW. THE CONTRACT VALUE TOTAL IS ACCORDINGLY CHANGED FROM \$766,625.50 TO \$898,790.79, AN INCREASE OF \$132,165.29. THIS MODIFICATION ALSO INCREASES THE OBLIGATION UNDER THE AUTHORITY OF EFARS 52.232-5004, INCREMENTAL FUNDING CLAUSE, IN THE AMOUNT OF \$50,000.00.  TOTAL PREVIOUS OBLIGATION: \$479,165.38 TOTAL PREVIOUS CONTRACT VALUE: \$766,625.50 OBLIGATION INCREASE THIS MOD: \$ 50,000.00 VALUE INCREASE THIS MOD: \$132,165.29 TOTAL REVISED OBLIGATION: \$529,165.38 TOTAL REVISED CONTRACT VALUE: \$898,790.79 Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.				
15A. NAME AND TITLE OF SIGNER (Type or print)			16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) LEE M MCCORMICK / CONTRACTING OFFICER TEL: (402)221-4045 EMAIL: lee.m.mccormick@us.army.mil	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)		15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY <i>Lee M. McCormick</i> (Signature of Contracting Officer)	
			16C. DATE SIGNED 31-Aug-2006	

EXCEPTION TO SF 30  
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)  
Prescribed by GSA  
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION 00010 - SOLICITATION CONTRACT FORM

The total cost of this contract was increased by \$132,165.29 from \$766,625.50 to \$898,790.79.

CLIN 0001

The unit price amount has increased by \$132,165.29 from \$766,625.50 to \$898,790.79.

The total cost of this line item has increased by \$132,165.29 from \$766,625.50 to \$898,790.79.

DELIVERIES AND PERFORMANCE

The following Delivery Schedule item for CLIN 0001 has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
31-AUG-2006	1	N/A FOB: Destination	

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
31-DEC-2007	1	N/A FOB: Destination	

SECTION 00800 - SPECIAL CONTRACT REQUIREMENTS

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by \$50,000.00 from \$479,165.38 to \$529,165.38.

CLIN 0001:

AC: 96X88620000 082417      32306083J6010592      NA 96252 was increased by \$50,000.00 from \$242,832.00 to \$292,832.00

(End of Summary of Changes)

The following items are applicable to this modification:

REVISED SOW DTD 12 JUL 06

**SCOPE OF WORK**  
**CHATFIELD, CHERRY CREEK AND BEAR CREEK, COLORADO**  
**STORAGE REALLOCATION**  
**FEASIBILITY STUDY**  
**12 July 2006**

**GENERAL**

The purpose of the feasibility study is to investigate the potential for reallocation of storage from flood control to multi-purpose use, to formulate plans of improvement, and to obtain approval of higher Corps authority. The feasibility study will include an analysis of existing and alternative operations of Chatfield Reservoir individually and, to the extent necessary for the hydrological studies, systemically with the Cherry Creek and Bear Creek Reservoirs. The feasibility study will estimate potential changes to downstream flows and to reservoir pool elevations as well as the potential consequences to water supplies, flood damages, recreation opportunities, water quality and fish and wildlife habitat. Historical streamflow records will be utilized to test the effects of different flood control and water supply regulation scenarios.

The end product will be a feasibility report, including an Environmental Impact Statement (EIS), US Fish and Wildlife Coordination Act Report, archeological assessment, public notice, and exhibits and supporting appendixes for the study.

**AUTHORITY**

Study authority is contained in the Energy and Water Development Appropriations Act of 1998. Storage reallocation authority is contained in Section 808 of the Water Resources Development Act of 1986; and in the 1958 Water Supply Act.

**GUIDANCE**

The work will generally follow the guidance set forth by the following Corps of Engineers Regulations (ER) and circulars (EC):

- "Policy and Planning, Guidance for Conducting Civil Works Planning Studies", ER 1105-2-100, 28 December 1990.
- "Program and Project Management", ER 5-1-11, 31 December 1997.
- "Policy and Procedures for Implementing NEPA", ER 200-2-2, 4 March 1988.
- "Civil Works Construction Cost Estimating, Engineering and Design for Civil Works Projects", EC 1110-2-263.
- "Engineering and Design for Civil Works Projects", EC 1110-2-268.
- "Civil Works Activities, Construction and Design", ER 11-2-240.
- "Engineering and Design for Civil Works Projects," ER 1110-2-1150.
- "Water Supply Handbook", Institute for Water Resources Report 96-PS-4

**FEASIBILITY REPORT**

The feasibility report will include all problem identification and formulation activities required to identify and recommend a plan. The report will include a technical appendix as well as NEPA, Section 106 and other environmental compliance documentation.

**OPERATIONAL STUDIES AND TASKS**

In order to determine the merits of the potential reallocation, it will be necessary to analyze several operational criteria. These criteria are associated with the downstream flows, pool sizes and elevations, water supply needs and accompanying storage requirements. All reservoir operations analyses and resultant effects on downstream flows and stages will be conducted by the Omaha District. All storage use and water demand scenarios will be provided by the project Sponsor (Colorado Water Conservation Board). All impact studies regarding these changed operations, flows and stages will be conducted by the consultant. The consultant will also prepare the

feasibility report/environmental impact statement. The tasks to be performed by the consultant are described below.

**Task. 1. Determine Discharge vs. Damage Relationships Downstream from the Reservoir.**

Introduction. In order to answer concerns about any real or perceived reduction in flood control protection, this task will focus on updating the discharge versus damage relationships downstream from the reservoirs. Most of the required land use information has already been collected as part of the Tri-Lakes Master Water Control Manual review, however, additional land use data collection downstream from this reach will be required. In this additional 15-mile reach, land use data will be collected as described below. This data will be provided to the contractor. In order to update these relationships, it will be necessary to determine two discharge values for each event -- what the discharge would have been without the reallocated storage, and what it would be with the reallocated storage. This analysis will be conducted using the current operating rules in order to establish "baseline" conditions. It should be recognized that under some operation alternatives, the downstream discharges would decrease from current conditions.

Flood damages will be determined by reach by alternative operating criterion. Damages will also be identified, to the extent the data allow, for the identification of thresholds where some structural physical action or non-structural measure could be taken to reduce or eliminate those flood damages. More focus will, therefore, be placed on damage values for those structures at lower elevations, closer to the channel. This will allow for a comparison of the damages and the costs of damage reduction, in analyzing the relative water supply storage benefits.

Mobilization and Initial Data Gathering. The contractor will review previous studies to become familiar with the study area and the previous damage analyses and plan formulation efforts. These will primarily include the Cherry Creek Dam Safety Study, the land use data collection efforts undertaken for the revisions to the Master Water Control Manual, and for the Scheduled Flood Control program. Most of the land use information required for this feasibility study has been collected recently, however, some additional information may be required. This information would include descriptions of the building, value, location and elevation, as shown below under "Land Use Data". The contractor will coordinate with the non-Federal sponsor to determine the availability of and collect information regarding historic damages and potential damages to downstream infrastructure.

Field Interviews. The contractor will conduct interviews with the non-Federal sponsor and other knowledgeable people to collect information regarding flooding or high water problems experienced during operations of the dams. This information will be used to verify the flood damage analysis and to pinpoint areas where small-scale solutions may assist in the reallocation efforts. In addition, the contractor will obtain information about emergency operations plans. This data will be used to correlate with the computed structure and content damages, to identify potential damages to public facilities, and to determine the emergency and clean-up cost component of flooding.

Land Use Data. As stated previously, most of the information required to determine flood damages has already been collected. Where necessary, however, and in cooperation with the non-Federal sponsor, the contractor will collect the following information:

- structure location, the structure will be located and keyed to the reach, subarea, and station in the flood plain
- first floor elevation using a hand level (for the flood damage model, this is expressed as first floor height above ground level), when available actual first floor elevations will be used to reduce the uncertainty regarding these figures
- ground elevation at the structure using a hand level
- structure type and use, keyed to the depth-damage relationships to be used in the flood damage model

- structure size, to be used in estimating the structure value
- structure classification, keyed to the Means Square Foot Cost or other estimating method for estimating building costs.

Preparation of Data for Flood Damage Model. The data collected during the land use survey will be coded for input into the model. Each structure will be classified and the values will be determined, using collected assessed values or calculated using the Means Square Foot Cost or other estimating method. Content values will be fifty percent for residential structures and vary for commercial and industrial structures.

Flood Damage Model. Structure and content damages will be calculated using the Omaha District flood damage model or, if available, the HEC Flood Damage Assessment model. These models use the hydrologic and hydraulic relationships determined for the stream and calculate damages for each structure for each flood event. *If the Omaha District flood damage model (Newark 4) is used the contractor will convert the information from DOS to Windows format.* The damages will be presented by stream reach as identified in the hydraulic profiles.

Historic, Emergency, and Public Damage. Historic damages will be presented to the extent that they are available from the non-Federal sponsor. Emergency-related damages will be determined for each flood event, using data such as previously experienced damages and costs or costs included in emergency flood fighting and evacuation plans. Damages to public facilities (i.e. roads, sewers, bridges, etc.) will be determined using data collected from, or developed by, the non-Federal sponsor.

#### **Task 2. Determine Impacts of Increased Water Supply Storage on Recreation Facilities.**

The recreational impact study for reallocation of flood storage space in Chatfield Reservoir will include four major areas:

- Inventory of recreation facilities
- Assessment of facility impact caused by increases in storage elevations
- Mitigation of facility impacts
- Recreational enhancement resulting from storage reallocation

Recreation facilities on the Chatfield project will be identified by elevation in order to determine the effects of increasing the pool elevations for water supply storage. Data to be identified will include the description of the facility, location, elevation, and replacement (or relocation) cost. The inventory of recreation facilities will include updating and adding to an existing GIS model. This model will be used in analyzing alternatives.

Impacts will occur as the result of permanent or temporary inundation or draw down. Impacts will be analyzed as to the frequency and timing of inundation at the various facilities, relocation feasibility, water quality concerns and land-base issues. If inundation would be temporary, an assessment will be required for each facility to determine whether it can withstand temporary flooding - either for a short-term or longer duration - the extent to which recreation uses may be impaired, cost in revenue to the Park as a result of the facility being unusable for any given amount of time, and the cost to rehabilitate the facility once pool levels have withdrawn. Revised thresholds for increased water surface elevations may be recommended based on impacts associated with each of the reservoir operation alternatives.

Based upon the most likely water supply alternatives, an assessment will be made to determine the feasibility or advisability of continuing the particular recreation activity. If the decision would be to continue the activity, the reconstruction or relocation costs will be estimated. If the decision would be to terminate the activity, the removal costs and the lost recreation benefits will be estimated. In some instances, it may be possible to relocate or rebuild the recreation facility, but the quality of the recreation would suffer sufficiently that recreation usage would be significantly affected. In such cases, the impacts would be considered in terms of

mitigation off-site. If it is determined that recreation impacts at certain pool elevations or under certain operation scenarios is unacceptable, revised scenarios may be recommended.

In addition to identifying impacts to facilities, land use and land base issues will be assessed. In cases of temporary inundation, shoreline flooding and subsequent exposure will be investigated. In cases of permanent inundation, loss of land base, particularly on the west side of the Park will be evaluated. Mitigation opportunities for such losses will also be evaluated. Mitigation of impacts will require a listing of alternative sites, engineering costs for relocation, revenue analyses, and redevelopment of the park's management plan. Final mitigation plans and cost estimates will require more detailed analysis after a course of action is chosen.

An assessment of potential recreation enhancement will be required to identify any benefits that might occur. Visitation patterns, improved facilities and the potential for increased revenue will be investigated once the reallocation impacts have been identified.

The GIS model to be used will be provided by the Government. The GIS is based on the Arc/INFO data model. The data is stratified into a classification schema and is described by a data dictionary. Topographic mapping at a scale of 1"=200' with a 2' contour interval is the basis for the Arc/INFO data set. A TIN was developed from photogrammetrically extracted random mass points and supporting break-lines. The contours were developed from the TIN.

All data developed from the recreation impact analysis will be integrated into the Chatfield GIS both graphic and supporting tabular information. The impact analysis information will be appropriately stratified/classified and integrated into the Chatfield Data Dictionary. Meta Data will be developed and provided as part of the modifications to the Chatfield GIS and Data Dictionary.

### **Task 3. Determine Impacts of Increased Water Supply Storage on Water Quality.**

This study element will examine the potential water quality impacts of the potential reallocation of flood control storage in the Tri-Lakes projects. Existing data in conjunction with potential changes in pool elevation and variations in pool elevations associated with the alternatives will be evaluated. An assessment of area capacity and the possible effects of increased lake volume on in-lake water quality conditions will be conducted. Increasing the lake volume can lead to an increased hypolimnetic volume if the lake depth is sufficient for thermal stratification to be maintained through the summer. Oxygen demand in the quiescent hypolimnion can result in the development of anoxic conditions near the lake bottom. Anoxic conditions can limit aquatic life and, through the oxidation-reduction process, mobilize constituents bound to lake sediments. In addition, changes in retention time will be evaluated. A discussion of the littoral zone impacts and recommendations to avoid such impacts will be included. Potential changes in the water quality of dam releases will also be evaluated to identify possible impacts to downstream fisheries.

In-lake water quality concerns to be evaluated include: 1) metals mobility, 2) nutrients/algae (including phosphorous and dissolved oxygen), and 3) *E. coli* bacteria. Recent forest fires in the South Platte River drainage have destabilized soils and increased the potential for runoff to transport heavy metals to reservoirs on the South Platte River. Metals bound to lake-bottom sediments in Chatfield Reservoir could be mobilized under anoxic conditions. Anoxic lake conditions could also result in the release of phosphorus bound to sediments in Chatfield Reservoir and result in increased algal growth. Increasing the littoral area of Chatfield Reservoir could alter the movement of bacteria within the lake, and possibly increase bacterial loadings if it resulted in increased waterfowl usage of the lake. The levels of *E. coli* bacteria present in Chatfield Reservoir are of concern regarding its recreational use.

Subtask 3.1. Lake volume increases will be determined based upon proposed changes in pool elevation. This will be accomplished by utilizing area capacity tables and other available bathymetric data.

Subtask 3.2. The potential for metals to be mobilized under anoxic conditions will be assessed using the maximum lake volume (the 12-foot rise alternative) as a "worst-case" scenario. The concern with metals mobilization is the development of anoxic conditions under "summer" thermal lake stratification. The maximum lake volume will be used to estimate the hypolimnetic volume and maximum anoxic zone that could develop. Results from subtask 3.1., existing water quality monitoring data, and a literature review (i.e., metal flux rates from lake sediments) will be utilized to assess potential water quality concerns regarding metals mobilization and loadings.

Subtask 3.3. The potential for nutrient enrichment of Chatfield Reservoir will be assessed with a stepwise approach. Results from subtask 3.2., existing water quality monitoring data, and a literature review of nutrient (i.e., phosphorus) flux rates will be utilized to estimate the possible increased internal phosphorus loading and nutrient loading from decaying inundated vegetation under the "worst-case" scenario and maximum lake volume. If the assessment indicates that there is a likelihood of a significant increase in the internal phosphorus loading or significant concerns relating to dissolved oxygen concentrations in the lake, a second step of applying the LAKE2K model will be undertaken. The model would be configured and calibrated using existing data, and used to further spatially assess algal, nutrient, and dissolved oxygen conditions that could be expected in Chatfield Reservoir. **Application of the LAKE2K model is not a part of this subtask; the contract will need to be amended to undertake the LAKE2K model task.**

Subtask 3.4. Under the "worst-case" scenario, bacteria (i.e., *E. coli*) levels would be expected to decrease with greater lake volume (i.e., dilution effect) if current sources and loading remain the same. A concern is that increasing the level of Chatfield Reservoir would increase the littoral area of the lake and attract more waterfowl and result in an increase in bacterial loadings. An assessment will be made to estimate possible increased waterfowl usage under the "worst-case" scenario of maximum lake volume. A review of the literature and the projection of increased waterfowl usage will be used to evaluate possible *E. coli* concerns regarding recreational use of Chatfield Reservoir. The uncertainties associated with estimating bacterial loadings and transport may limit the confidence of this evaluation.

Subtask 3.5. Changes in reservoir retention time will be evaluated. This analysis will consist of using historic retention time information and estimating retention times under the proposed operational regime to qualitatively assess impacts on water quality. Significantly longer or shorter retention times can have a significant impact upon the water quality of the reservoir in terms of hypolimnetic oxygen depletion, nutrient cycling and other parameters.

Subtask 3.6. Changes in releases under the new and old operational regimes will be evaluated to qualitatively assess potential water quality problems downstream from Chatfield to the Adams/Weld county line. This analysis will include evaluating the potential change in water quality of the releases from Chatfield Reservoir.

#### **Task 4. Evaluate Effects of Increased Water Supply Storage on Cultural Resources**

Effects on cultural resources will be identified in order to develop a mitigation plan that will become a part of the reallocation and water storage contract cost.

Subtask 4.1. Literature search. This task will include a detailed literature search to determine what sites exist on project lands and to develop a description of the characteristics of these sites. This will be limited to available published information.

Subtask 4.2. Determine impacts of pool elevation changes. This task will include a site visit to field check the cultural resources that will be impacted by the pool raise alternatives.

Subtask 4.3. Determine impacts of relocation of recreation facilities. This task will include a site visit to field check the cultural resources that will be impacted by the relocation of recreation facilities.

Subtask 4.4. Determine mitigation needs and costs. This task will include consultation with the Colorado SHPO, once impacts have been identified, to determine how the impacts should be mitigated. A programmatic agreement will be developed to describe how the mitigation will occur. Finally a scope of work for completing the mitigation will be developed.

#### **Task 5. Evaluate Effects of Increased Water Supply Storage on the Natural Environment.**

Environmental effects will be examined so that NEPA compliance issues will be identified as early as possible in these evaluations. This will include effects that may occur within the project area due to changes in pool elevations (both frequency and duration), including impacts to water quality, fish and wildlife, wetlands and recreation. This will also include effects downstream from the project to the Adams/Weld county line that may affect similar resources or opportunities as a result of changes in the outflows from the dam. Revised thresholds for increased water surface elevations may be recommended based on impacts associated with each of the reservoir operation alternatives.

Potential mitigation or replacement costs will be developed for adverse impacts within the project area and immediately downstream. For the potential T&E impacts in Nebraska, the studies will focus on the level of hydrologic impact that could occur.

Introduction. It is national policy that fish and wildlife resources conservation be given equal consideration with other study purposes in the formulation and evaluation of alternative plans. Full consideration is also to be given to opportunities for fish and wildlife enhancement in investigating and planning Federal water resources projects. Current planning guidance specifies that the Federal objective of water and related land resources planning is to contribute to national economic development consistent with protecting the Nation's environment, pursuant to national environmental statutes, and applicable executive orders. Protecting the Nation's environment is to be provided by mitigation of the adverse effects attributed to alternative plans.

Specify natural resources problems and opportunities in the study area. Statements will encompass current as well as future conditions. Initial expressions of natural resource opportunities may need to be modified during the study. Special meetings will be conducted with natural resource agencies to identify problems and opportunities. Consistent with Section 808 of the Water Resources Development Act of 1986, alternative plans to address fishery habitat protection and enhancement may be formulated.

Assist in public meetings. Assist in providing information and ensuring the study is responsive to the needs and concerns of the public. Public meetings are anticipated to be needed to scope the EIS and receive comments on the DEIS.

Quantify and qualify important natural resources in the planning area, now and in the future in the absence of a plan. This task is a description of the without-project condition; the baseline from which alternative plans' benefits are measured and impacts are assessed. Appropriate coordination, literature review, site visits, and studies will be conducted throughout the planning process to determine the significance of natural resources likely to be affected by alternative plans. In accordance with the Fish and Wildlife Coordination Act, the FWS and CDOW will be requested to identify fish and wildlife concerns and available information and provide their views concerning the significance of fish and wildlife resources. In accordance

with the Endangered Species Act, the FWS will be requested to provide information on any Federally listed threatened or endangered species that may be in the planning area. *Detailed site mapping of Chatfield Reservoir lands will be required to map threatened and endangered species habitat, wetlands habitat and migratory bird habitat.* Special studies may be needed to determine the actual presence or absence of listed species.

Assist in the screening and refinement of alternative reallocation plans. Fish and wildlife resources gains and losses attributed to each alternative plan will be determined. Assistance will be provided in formulating alternatives that avoid or minimize damages to significant fish and wildlife resources, including wetlands. The need for mitigation will be determined for each alternative formulated. Separable fish and wildlife resources management features will also be considered.

Assist in the development of preliminary fishery habitat protection and enhancement plans. Assistance will be provided in the formulation of measures to protect and enhance fisheries. This effort may include measures to restore the environment in the planning area to a less degraded condition, to protect the environment from becoming degraded, or to take advantage of specific opportunities associated with the formulation of water supply storage plans.

Environmental Impact Statement (EIS). In accordance with the National Environmental Policy Act, preparation of an EIS is anticipated to be necessary primarily because of adverse impacts to recreation, fish, and wildlife resources. Significant environmental issues deserving of study will be identified in a scoping process. A detailed statement will be prepared on the environmental impact of the proposed action and alternatives to the proposed action, and any adverse environmental effects which cannot be avoided should the proposal or any of the alternatives be implemented. The EIS will be integrated into the feasibility report. *Chapters prepared for the Preliminary Draft Feasibility Report/EIS will be circulated for review and comment by the Omaha District, the sponsor and entities formally identified as cooperating agencies. Comments will be incorporated into the Draft Feasibility Report/EIS.* A Draft Feasibility Report/EIS will be circulated for public review and comment before a Final Feasibility Report/EIS is prepared.

Prepare Biological Assessment. In accordance with the Endangered Species Act, preparation of a biological assessment is anticipated to be necessary. The biological assessment will evaluate the affects of the proposal on Federally listed threatened or endangered species.

Prepare Clean Water Act 404b1 Evaluation. In accordance with the Clean Water Act, preparation of a 404b1 ecological evaluation is anticipated to be necessary. This evaluation will determine in writing the potential effects of any proposed discharges of fill material of any alternatives on the physical, chemical, and biological components of the waters of the US, including wetlands.

Consider FWS and CDOW Recommendations. In accordance with the Fish and Wildlife Coordination Act and the Endangered Species Act, full consideration will be given to reports and recommendations furnished by the FWS and the CDOW regarding the formulation and evaluation of alternative plans, including mitigation; and any recommendations concerning the protection or conservation of endangered and threatened species. *It is anticipated that the Preble's Meadow Jumping Mouse will be a significant issue. This will require significant effort in preparing the Biological Assessment, and completing consultation and developing acceptable mitigation measures with the U.S. Fish and Wildlife Service. Potential impacts to wetlands and fisheries are also expected to be important issues and will require time for coordination and development of suitable mitigation measures.* Supplemental comments furnished by local public officials and the general public will also be given consideration.

Formulate specific fish and wildlife resources mitigation. Beneficial fish and wildlife actions of alternative plans will first be evaluated to determine if they offset adverse impacts, by replacing or providing substitute resources, before

considering separable mitigation features. Sufficient mitigation will be formulated to ensure that either the recommended plan or the NED plan will not have more than negligible adverse impacts on fish and wildlife resources. An incremental cost analysis will be performed to display variation in cost. A mitigation-monitoring program will also be developed.

Identify areas of risk and uncertainty. Areas of risk and uncertainty in environmental analyses will be identified and described clearly. This will enable decisions to be made with the knowledge of the degree of the reliability of the estimated beneficial or adverse impacts, or mitigation costs.

Prepare a comparative display of the environmental effects of alternative plans. A tabular display will be prepared for the EIS, which focuses on the differences among the alternative plans.

Consider public comments. Public comments received from circulation of the Draft Feasibility Report/EIS will be reviewed. A comment and response section will be prepared for the Final Feasibility Report/EIS for use by the decision-makers. Appropriate changes/revisions to the EIS will be made in response to comments.

Record of Decision. In accordance with the National Environmental Policy Act, a concise public record of decision must be prepared. An identification of the alternative(s), which were considered to be environmentally preferable, will be made. A statement regarding whether all practicable means to avoid or minimize environmental harm from the alternative selected were adopted, and if not, why they were not, will be prepared. A summary of a monitoring program for any mitigation will also be prepared.

#### **Task 6. Determine Potential Cost of Reallocation.**

This task will result in the identification of the potential costs associated with storage reallocation. These include the cost of any work required to modify the project facilities to accommodate increased storage (such as water intakes and canals or replacing recreation facilities), the cost of operating and maintaining any additional water supply facilities, storage costs, a continuing share of the total operation and maintenance of the project (in proportion to the amount of storage reallocated), and a share of any future major modification or replacement of the project (in proportion to the amount of storage reallocated). The costs will be based on the current Corps of Engineers guidance outlined in Engineer Regulation (ER) 1105-2-100 and described in the Water Supply Handbook (Institute for Water Resources Report 96-PS-4). These regulations reflect the requirements of the Water Supply Act of 1958. Under these regulations, the cost of storage is the higher of benefits foregone, revenues foregone, replacement costs, or the updated cost of storage. In addition to these costs, the cost of replacing or relocating recreation facilities will be identified as a cost of reallocation. Finally, potential operation and maintenance costs associated with the water supply operations will be estimated.

Water Supply Benefits. The Corps' Water Supply Handbook indicates that reallocation can be considered to be a reassignment of the usage of existing storage space in a reservoir project to a higher and better use. In order to address this consideration, for each of the target pool elevations to be evaluated, the value or benefit of the additional water supplies will be estimated on a per acre-foot basis. This estimate will take water rights into account and be sufficiently detailed to support comparison with the estimated cost of reallocating the storage capacity from flood control to conservation purposes and the cost of mitigating the associated impacts. Water supply benefits may be estimated by comparison with acquisition of comparable water supplies, by estimating the cost of constructing equivalent storage capacity and by other acceptable methods. Benefits should indicate both the value of the storage space and the value of associated water storage and supply opportunities. In order to accomplish this task, information from the Metropolitan Water Supply Investigation, the Denver Environmental Impact Statement and other recent studies concerning the development of water supplies for the Front Range will be utilized. Each entity

seeking storage space at Chatfield Reservoir will provide the contractor a copy of the water supply studies they believe should be considered in the determination of water supply benefits. The contractor will summarize this information into a brief concise Task Memorandum for review by the study participants. All study participants will concur in the use of the benefit values identified in the Task Memorandum.

Structural Water Supply Alternatives. In order to evaluate the potential benefits and adverse impacts associated with any proposed reallocation of flood control capacity to water supply purposes, and to prepare the information needed for compliance with federal NEPA requirements, the cost and impacts of reasonable water supply alternatives will be identified. For the purposes of this comparison, alternative water supply projects will be of comparable size and reliability. In order to accomplish this task, information from the Metropolitan Water Supply Investigation, the Denver Environmental Impact Statement and other recent environmental assessment type studies concerning the development of water supplies for the Front Range will be utilized. Each entity seeking storage space at Chatfield Reservoir will provide the contractor a copy of the studies they believe should be considered in the identification of water supply alternatives. The contractor will condense and summarize this information into a preliminary draft environmental assessment type Task Memorandum for review by the study participants. All study participants will concur in the water supply alternatives identified in the Task Memorandum. The number of alternatives identified for this effort will be limited to no more than six. The alternatives considered would be the six deemed to be most likely to be implemented at this time.

#### **Task. 7. Public Involvement and Coordination**

This study will require considerable public involvement and coordination with affected state and local interests. Besides the activities associated with NEPA documentation, the contractor will be required to meet on a quarterly basis with a steering committee that will be established by the sponsor. This will require the development of progress reports and displays. In addition, the contractor will be required to develop and maintain a website that can be used to keep the interested public apprised of current study activities, reports, and progress.

#### **Task 8. Project Management**

Project management activities will include the overall management of the contracted portion of the study. This will include monthly progress reports by task, and an identification, where necessary, of activities that could affect the contract schedule. Billing will be on a monthly basis and will include percent complete and a description of approximate expenditures by task.