



UNION RESERVOIR ENLARGEMENT ALTERNATIVES ANALYSIS AND FEASIBILITY STUDY

Prepared for:

CITY OF LONGMONT
1100 South Sherman Street
Longmont, Colorado 80501

Prepared by:

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Tetra Tech RMC Job No. 19-0033.283.00

March 2007





TETRA TECH

June 20, 2007

Mr. Ken S. Huson, P.E.
City of Longmont Service Center
1100 South Sherman Street
Longmont, Colorado 80501

Re: Union Reservoir Enlargement Alternatives Analysis and Feasibility Study, Union Reservoir, Longmont, Colorado; Tetra Tech Job No. 19-0033.283.00, D&A Job No. CG-0157.025.00

Dear Mr. Huson:

This report presents the results of our Alternatives Analysis and Feasibility Study for alternative reservoir raises at Union Reservoir.

Sincerely,

TETRA TECH, INC.

Tom Hesemann, R.G., C.E.G.
Operating Unit Leader

GL:sp

Attachments

Reviewed by:

DEERE AND AULT CONSULTANTS, INC.

Don W. Deere, P.E., P.G.
Principal

Mark A. McLean, P.E.
Principal

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1.0 INTRODUCTION

This report has been prepared to document our alternatives analyses and feasibility investigations of a proposed enlargement of Union Reservoir located east of the City of Longmont in Weld County, Colorado. Tetra Tech RMC (formerly Rocky Mountain Consultants, Inc. [RMC]) previously prepared a feasibility study for a proposed enlargement of the reservoir in 1986 (RMC, 1986). The 1986 study has been used as a planning document by the City's Union Reservoir Land Management Program. The City has since acquired additional land around the reservoir to make way for future expansion (**Figure 1.1**). However, a few key parcels west of the reservoir have not been purchased and are now proposed for development. The alternatives under consideration in this study focus on reservoir layouts which will not inundate the areas proposed for development.

The work performed in this study consisted of eight tasks outlined in our proposal of June 29, 2004. The tasks performed were:

- Task 1 - Topographic Mapping
- Task 2 - Geotechnical Investigation
- Task 3 - Flood Hydrology
- Task 4 - Raw Water Master Plan Update
- Task 5 - Wetlands and Threatened and Endangered Species Assessment
- Task 6 - Reservoir Alternatives Evaluation
- Task 7 - Pipeline and Pump Station Alternatives Evaluation
- Task 9 - Report Preparation and Presentations

Draft summary information for this report was presented to the public in December 2004. The Longmont City Council also received draft summary information in November and December 2004, and a summary of public comments in January 2005.