

Colorado Water Conservation Board
Emergency Funding for Damaged River Diversions/Dams
from the September 2013 Flood Event

Emergency Loan Application and Feasibility Study

Prepared for:

ST. VRAIN AND LEFT HAND WATER CONSERVANCY DISTRICT
9595 NELSON ROAD
LONGMONT, CO 80501
303-772-4060

Prepared by:

ST. VRAIN AND LEFT HAND WATER CONSERVANCY DISTRICT
9595 NELSON ROAD
LONGMONT, CO 80501
303-772-4060

Signature	
Executive Director	Return a signed hard copy and an electronic copy to: CWCB Finance Section 1580 Logan, Suite 600 Denver, CO 80203 Attn: Anna Mauss Ph. 303.866.3441x 3224 e-mail: anna.mauss@state.co.us
Completed By/Title (Print)	
Signature/Date	

Application Deadline:
December 2, 2013 (noon)

FEASIBILITY STUDY APPROVAL
Pursuant to Colorado Revised Statutes 37-60-121 & 122, and
in accordance with policies adopted by the Board, the
CWCB staff has determined this Feasibility Study meets all
applicable requirements for approval.

Signed  Date 7/16/2014

Agency/Company Information	
Name: St. Vrain and Left Hand Water Conservancy District, acting by and through its Water Activity Enterprise	
Address: 9595 Nelson Road, Longmont, CO 80501	
Phone: 303-772-4060	Email: office@svlhwcd.org
Organization Type: Water Conservancy District under § 37-45-101 et seq.	Incorporated: N/A
Established by Decree: April 19, 1971	In good standing with the Secretary of State: N/A
Number of acres irrigated: N/A	Number of [] Shares/ [] Taps: N/A
Avg. Water Diverted/Yr: N/A	
Number of Shareholders? N/A	Current Assessment \$ N/A
	Projected Assessment \$ N/A
Contact Information	
Contact/Title: Sean Cronin, Executive Director	
Address: 9595 Nelson Road, Longmont, CO 80501	
Phone: 303-772-4060	Email: sean.cronin@svlhwcd.org
Engineer: Mark McLean, P.E., Deere & Ault Consultants, Inc.	
Phone: 303-651-1468	Email: mark.mclean@deereault.com
Attorney: Scott Holwick, Lyons Gaddis Kahn Hall Jeffers Dworak & Grant, P.C.	
Phone: 303-776-9900	Email: sholwick@lgkhlaw.com
Project Location Information	
County: Boulder	Water District: 5
River Basin: South Platte River	Water Source: St. Vrain Creek
Project Summary	
Project Type: (circle one or more) Lined Reservoir Embankment/Liner Repair and Sediment Removal	
Estimated Engineering Costs: \$252,000	Estimated Construction Costs: \$1,255,000
Other Costs (Describe Above): \$377,000 (contingency)	Estimated Total Project Costs: \$1,884,000
Requested Loan Amount: \$1,884,000	Date Funding is Needed? February 1, 2014
Possible other funding sources: FEMA – request for Public Assistance filed on September 27, 2013	
Attachments	
☒ [X]	Last two years Financial Statements
☐ []	Shareholders List: N/A
☒ [X]	Establishment Decree/ By-laws
☒ [X]	Location Map(s)
☐ []	Shareholder Resolution (submit prior to contracting)
☐ []	Attorney Opinion Letter (submit prior to contracting)
☒ [X]	W9
☒ [X]	EFT Direct Deposit Authorization Form
☒ [X]	Deere & Ault Cost Estimate

Project Background

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged. The Project repair/rehabilitation proposed in this Feasibility Study received significant damage as a result of the flood.

In November, 2001, the St. Vrain and Left Hand Water Conservancy District, acting by and through its Water Activity Enterprise (hereinafter “SVLHWCD”) acquired an undivided 50% interest in real property which included a lined reservoir known as Rock’n WP Ranch Lake No. 4 (hereinafter “Lake No. 4”). Through the same transaction, Boulder County (“County”) also acquired an undivided 50% interest in the real property including Lake No. 4. On November 29, 2001, SVLHWCD and the County entered into a Tenancy-In-Common Agreement which defines the parties’ obligations relating to the real property including Lake No. 4.

The storage capacity in Lake No. 4 to which each of the co-owners is entitled is used by each co-owner in different ways. For SVLHWCD, Lake No. 4 is a critical element in its integrated augmentation plan, decreed in Case No. 02CW334 on December 19, 2007 (“Plan”). Under its Plan, SVLHWCD makes releases of augmentation water to replace out-of-priority depletions generated by its approximately 240 members. For the County, Lake No. 4 is used primarily for in-reservoir purposes (recreation, fish and wildlife propagation) and is also decreed for releases to maintain minimum stream flows for fish, recreation and wildlife.

Pre-flood, Lake No. 4 had a physical capacity of approximately 600 acre-feet and had an intact, functioning liner approved by the State Engineer’s Office. Its infrastructure included an inlet works (diversion structure off of the South Branch of St. Vrain Creek with flume and recorder), a water level recorder, and an outlet works (outlet gate, pipe, weir box and recorder). See attached Google photo with captions. Lake No. 4 is an off channel reservoir and generally receives very little uncontrolled inflow beyond precipitation on the water surface.

During the flood, St. Vrain Creek breached in four locations above the South Branch. See attached Google photo with captions. One river breach was in close proximity to Lake No. 4 and diverted water entirely out of the Creek and toward Lake No. 4 such that the normal stream channel was observed to be dry downstream of the breach. Video and photo evidence demonstrate that Lake No. 4 began taking on water after two unlined gravel pits up-gradient from Lake No. 4 were flooded. The unlined pits were overcome by the flow of the water and their earthen embankments failed creating a “new river” which flowed directly into Lake No. 4. Lake 4 filled and overflowed and eventually its eastern embankment was breached. See attached Google photo with captions.

It is estimated that the upstream breach into Lake No. 4 is approximately 300 feet wide and that the downstream breach out of the lake is approximately 100 feet wide. Beyond the breached extents, additional areas of the western and eastern embankments sustained significant overtopping damage that also must be repaired. Significant debris and sediment flowed into Lake No. 4 through the northwest breach which needs to be removed to restore its pre-flood capacity. Both breached and damaged sections of the liner embankments need to be restored and re-approved prior to SVLHWCD and the County using Lake No. 4 for its intended purposes.

Water Rights

The water rights impacted by this project include:

Name	Water Court Case	Appropriation Date	Adjudication Date	Amount (cfs or AF)	Est. Annual Yield (AF)*
Rock'n WP Ranch Lake No. 4	88CW74	4/23/1992	5/3/1995	880 AF	N/A
Rock'n WP Ranch Lake No. 4	01CW262	12/19/2001	4/26/2006	600 AF	150 AF
Rock'n WP Ranch Lake No. 4	02CW334	N/A	12/19/2007	Change in use	N/A

* Average annual yield is estimated as one-fourth of the physical capacity.

Project Description

The project goal is to rebuild the breached clay slurry liner and earthen embankments and to remove all debris and sediment deposited within Lake No. 4 during the September 12 – 16, 2013 flood. SVLHWCD has retained Deere and Ault Consultants, Inc. and their licensed Professional Engineers to provide design and construction review services

Alternative 1 – Do Nothing: This alternative is considered unacceptable. Failure to restore Lake No. 4 would leave most of SVLHWCD's augmentation plan members without an augmentation source to replace their depletions. There are no other augmentation plan options, so the Division Engineer would need to curtail the depletions (many of which derive from residential domestic use).

Alternative 2 – Rebuilding Collaboratively with Improvements: Lake No. 4 could be rebuilt to an improved standard making it capable of withstanding similar future flood events by constructing the northwest and eastern embankments to be overtoppable (RCC) with a spillway over the eastern dam, and a new pumped outlet for delivering water to the Creek. Deere and Ault estimated the cost of this alternative (including contingencies) to be approximately \$7,151,000.00. Given the historic infrequency of this magnitude of flood event, SVLHWCD does not believe that the utility of such an improved structure supports the elevated cost.

Selected Alternative 3 – Rebuild/restore the lined reservoir, including debris and sediment removal and embankment/liner rehabilitation: The project will reconstruct the damaged facilities in the same location, size and for the same function as the pre-flood structure. The project will also remove debris and sediment to reclaim the physical storage capacity. The project will also insure the reservoir's capability to measure and record inflow, water level and outflow so that it can be utilized and administered as an augmentation delivery structure.

Cost Estimate

The Project cost estimate (including design engineering, construction of the repairs, construction engineering, and contingencies) provided by Deere & Ault Consultants, Inc. is \$1,884,000 and is further broken down as identified on the attached Engineers Estimate of Construction Costs.

SVLHWCD is applying for a loan not to exceed \$1,884,000.

Financial Analysis

SVLHWCD does not have any existing debt. SVLHWCD's sources of income include: (1) Augmentation membership fees; (2) Interest income; (3) District water rental (C-BT); (4) Longmont water rental (C-BT); and (5) transfer from SVLHWCD's general fund as allowed by statute.

Schedule

Design of the Project repairs is expected during Q2 of 2014. Construction of the Project repairs is expected to commence Q3/Q4, 2014. Project completion is estimated to occur during Q1 2015 in advance of the 2015 runoff.

Economic, Social, and Environmental Effects

Failure to reconstruct Lake No. 4 would result in adverse impacts to the majority of SVLHWCD's Plan members who would be left without an augmentation source to replace their depletions. There are no other augmentation options, so the Division Engineer would need to curtail the depletions (many of which derive from residential domestic use) caused by those members. Additional impact would be the loss of recreational opportunities to the public under both the County's St. Vrain Trail Master Plan and the St. Vrain Creek Corridor Open Space Management Plan. Another impact would be the loss of opportunity to release water to maintain minimum stream flows for fish, recreation and wildlife.

Permits

SVLHWCD may need State review and approval of the Project relating to dam safety. A grading permit from Boulder County will likely be required. SVLHWCD does not believe that it will need a permit from the US Army Corps of Engineers, but intends to consult with the USACE Regulatory Office to confirm.

IN THE DISTRICT COURT IN AND FOR THE
COUNTY OF WELD AND STATE OF COLORADO

Civil Action No. 20881

IN THE MATTER OF ST. VRAIN AND)
LEFT HAND WATER CONSERVANCY) FINDINGS AND DECREE
DISTRICT)

THIS CAUSE coming on for hearing on the 19th day of April, 1971, upon petition for the establishing of a water conservancy district under the "Water Conservancy Act" of the State of Colorado (COLO. REV. STAT. ANN. Secs. 150-5-1 to 50 (1963)) as amended, and the Court after full hearing DOETH FIND:

1. The Court has full and complete jurisdiction in this proceeding, and of the parties to and the subject matter of this proceeding.

2. The petition in this cause for establishment of St. Vrain and Left Hand Water Conservancy District was filed in the office of the Clerk of the District Court in and for the County of Weld on the 31st day of December, 1970, together with a bond sufficient to pay all expenses connected with the proceedings in case the organization of the district be not effected. On said day, this Court by order approved the bond, fixed March 19, 1971, at 9:30 A.M. as the time, and the District Court in and for the County of Weld and State of Colorado as the place for hearing of said petition, and directed the Clerk of this Court to give notice as required by COLO. REV. STAT. ANN. Sec. 150-5-6 (1963).

3. The Clerk of this Court, pursuant to such order dated December 31, 1970, did cause notice of the pendency of the petition and notice of the time and place of hearing thereon to be given by publication once each week for four successive weeks in "The Greeley Daily Tribune" a legal newspaper of general circulation in the County of Weld; once each week for four successive weeks in the "Loveland Daily Reporter-Herald",

a legal newspaper of general circulation in the County of Larimer; and once each week for four successive weeks in the "Longmont Daily Times-Call", a legal newspaper of general circulation in the County of Boulder. The publication was made in each of the newspapers in the manner required by law. The Clerk of this Court further caused a copy of notice of pendency of the petition and hearing thereon to be mailed by registered mail to the Boards of County Commissioners of the Counties of Weld, Larimer and Boulder.

4. The petition sets forth all matters required by COLO. REV. STAT. ANN. Sec. 150-5-4 (3) (1963).

5. There is no city or city and county having a population of more than 25,000 as determined by the last United States Census to be included within the boundaries of the proposed district.

6. The assessed valuation of the irrigated lands within the boundaries of the proposed district is less than \$20,000,000.00.

7. The petition in all respects complies with and conforms to the requirements of said Water Conservancy Act. The petition has been signed by not fewer than twenty-five percent of the owners of irrigated land of an assessed value of not less than one thousand dollars and by not fewer than five per cent of the owners of non-irrigated land or lands embraced in the incorporated limits of a city or town of an assessed value of not less than one thousand dollars.

8. The allegations of said petition are true, said petition in its form and content is proper in all its respects, and said petition, together with signatures in support thereof, is approved by the Court.

9. No protesting petitions as provided for in COLO. REV. STAT. ANN. Sec. 150-5-7 (1963) as amended, have been filed herein.

10. The property within the proposed district will be benefited by accomplishment of the following purposes, to-wit:

Construction of "Works" as defined in said Water Conservancy Act for conserving, developing, stabilizing and acquiring the supplies of water for domestic, irrigation, power, manufacturing and other beneficial uses, and by water management, augmentation, replacement, exchange and ground water storage.

11. The purposes for which the district is established are the following:

a. To provide for the beneficial use of water within the boundaries of the proposed district and within the State of Colorado for agricultural, domestic, municipal, industrial, flood control, recreation and other uses under the presently established doctrine of prior appropriation and under existing decrees, filings, and applications for water rights.

b. To perfect applications for water rights and statements of appropriations heretofore made, or which may hereafter be made or acquired by this proposed Water Conservancy District for water rights of the South Platte Basin, and waters tributary to the South Platte River and water rights in Western Colorado, including waters of the Colorado River and its tributaries, at elevations such that water can be collected and conducted through existing transmountain diversion structures, any new transmountain diversion structures or any other routes or structures for use in the St. Vrain Valley in Eastern Colorado within the boundaries of the proposed district.

c. To promote the authorization and construction of water storage reservoirs, for agricultural, municipal, as well as domestic and recreation use, and to acquire a beneficial interest in the waters thereof.

d. To protect the interest of the owners or present appropriators of water within the proposed district as they may be effected by the development of additional storage by the United States Bureau of Reclamation or the Corps of Engineers of the Department of the Army, United States of

America, at Narrows, Chatfield, Two Forks, VanBibber, Mount Carbon, Cherry Creek or other sites which are now being proposed or which may be proposed in the future.

e. To foster the establishment of operating principles of storage reservoirs in the St. Vrain River Basin and the entire South Platte River Basin which will protect and recognize existing priorities and statements of appropriation, as well as the present and historical practice of river administration and exchange to secure the optimum beneficial use of the ground water aquifers and surface waters of the St. Vrain River and the South Platte Basin, within the boundaries of the proposed district.

f. To promote the beneficial use of water for all municipal uses, including domestic use, mechanical use, manufacturing use, generation of electric power, power generally, fire protection, use for sewage treatment, street sprinkling, watering of parks, trees, lawns and grounds, the maintaining of adequate storage reserves, irrigation, replacement, adjustment and regulation of all the units of all the water systems of the municipalities and irrigation systems within the St. Vrain Basin and within the proposed district, to appropriate waters of the aquifers of the St. Vrain Basin and aquifers within the South Platte River Basin and its tributaries, Water Division 1, State of Colorado, and to initiate the practice of using any of said waters for the purpose of effectuating an exchange or transfer of water upstream for use within the district by use of any public stream or waters in substitution for water supplied to or applied to beneficial use by any of the water users within the proposed district, and for the further purpose of supplying downstream priorities by means of ground water or surface withdrawals to enable diversion of stream flow by junior appropriators within the district and to prevent a call for waters from the St. Vrain Basin by supplying legal calls downstream from ground

water aquifers. Nothing in this paragraph 11. f. of this Findings and Decree set forth shall operate to the injury of any irrigation system or any farm thereunder. Municipal systems and irrigation systems shall be treated equitably.

g. To promote the purposes of the "Water Conservancy Act" of Colorado as set forth in Colorado Revised Statutes 1963, Section 150-5-1, within the boundaries of the proposed district,

h. To maintain irrigated agriculture within the St. Vrain basin and within the proposed district and the areas irrigated by irrigation systems whose diversion works are on the St. Vrain River or its tributaries and to supply a full water right for irrigated lands in the basin. No change of point of diversion, plan of augmentation, change of water right or change of use or the place thereof shall injure any vested right.

i. To integrate, manage, use, reuse, exchange, substitute and apply to beneficial use waters of the ground water aquifers of the St. Vrain basin and the South Platte basin which are tributary to the St. Vrain and South Platte River as defined by the Water Rights Determination and Administration Act of 1969, or legislation amendatory or in substitution thereof.

12. The territory to be included in the district is territory described as follows:

A portion of Boulder, Larimer and Weld Counties, Colorado, described as follows:

Beginning at the NE corner of Sec. 27, T. 4 N., R. 67 W. of the 6th P.M., thence southerly 3 miles, more or less to the SE corner of Sec. 3, T. 3 N., R. 67 W; thence westerly 1 mile, more or less, to the SW corner of said Sec. 3; thence southerly 4.5 miles, more or less, to the E $\frac{1}{4}$ corner of Sec. 33, T. 3 N., R. 67 W; thence westerly 1 mile, more or less, to the W $\frac{1}{4}$ corner of said Sec. 33; thence southerly 0.5 miles, more or less, to the SE corner of Sec. 32; thence westerly 1 mile, more or less, to the SW corner of Sec. 32, T. 3 N., R. 67 W; thence southerly 0.5 miles, more or less, to the E $\frac{1}{4}$ corner of Sec. 6, T. 2 N., R. 67 W; thence westerly 4 miles, more or less, to the W $\frac{1}{4}$ corner

of Sec. 3, T. 2 N., R. 68 W; thence southerly 0.5 miles, more or less, to the SE corner of Sec. 4; thence westerly 1 mile, more or less, to the SW corner of said Sec. 4; thence southerly 1 mile, more or less, to the SE corner of Sec. 8; thence westerly 1 mile, more or less, to the SW corner of said Sec. 8; thence southerly 1 mile, more or less, to the SE corner of Sec. 18, T. 2 N., R. 68 W; thence westerly 3.5 miles, more or less, to the N $\frac{1}{4}$ corner of Sec. 22, T. 2 N., R. 69 W; thence southerly 2 miles, more or less, to the S $\frac{1}{4}$ corner of Sec. 27; thence westerly 2.5 miles, more or less to the SW corner of Sec. 29; thence southerly 0.5 miles, more or less, to the E $\frac{1}{4}$ corner of Sec. 31; thence westerly 1 mile, more or less, to the E $\frac{1}{4}$ corner of Sec. 36, T. 2 N., R. 70 W; thence southerly 0.5 miles, more or less, to the SE corner of said Sec. 36; thence westerly 1 mile, more or less, to the SW corner of said Sec. 36; thence northerly 0.5 miles, more or less, to the W $\frac{1}{4}$ corner of said Sec. 36; thence westerly 1 mile, more or less, to the E $\frac{1}{4}$ corner of Sec. 34; thence southerly 0.5 miles, more or less, to the SE corner of said Sec. 34; thence westerly 4 miles, more or less, to the SW corner of Sec. 31, T. 2 N., R. 70 W; thence northerly 1 mile, more or less, to the SE corner of Sec. 25, T. 2 N., R. 71 W; thence westerly 2 miles, more or less, to the SW corner of Sec. 26; thence southerly 1 mile, more or less, to the SE corner of Sec. 34, T. 2 N., R. 71 W; thence westerly 2 miles, more or less, to the NE corner of Sec. 5, T. 1 N., R. 71 W; thence southerly 1 mile, more or less, to the SE corner of said Sec. 5; thence westerly 1.5 miles, more or less, to the N $\frac{1}{4}$ corner of Sec. 7; thence southerly 0.5 miles, more or less, to the center of said Sec. 7, T. 1 N., R. 71 W; thence westerly 3.5 miles, more or less, to the E $\frac{1}{4}$ corner of Sec. 9, T. 1 N., R. 72 W; thence southerly 1 mile, more or less, to the E $\frac{1}{4}$ corner of Sec. 16, T. 1 N., R. 72 W; thence westerly 7 miles, more or less, to the W $\frac{1}{4}$ corner of Sec. 16, T. 1 N., R. 73 W; thence northerly 0.5 miles, more or less, to the NW corner of said Sec. 16; thence westerly 3.5 miles, more or less, to the Continental Divide; thence northerly on a meandering line along said Continental Divide to an intersection with the Boulder-Larimer County line; thence along said line easterly 3 miles, more or less; whence the NW corner of Sec. 4, T. 3 N., R. 73 W. bears easterly 1 mile more or less; thence northerly 2 miles, more or less; thence easterly 2 miles, more or less, to the NW corner of Sec. 27, T. 4 N., R. 73 W; thence continuing easterly 2 miles, more or less, to the NE corner of Sec. 26; thence southerly 2 miles, more or less, to the SE corner of Sec. 35, T. 4 N., R. 73 W; thence easterly 1 mile, more or less, to the NW corner of Sec. 6, T. 3 N., R. 72 W; thence southerly 0.5 miles, more or less, to the W $\frac{1}{4}$ corner of said Sec. 6; thence easterly 6 miles, more or less, to the W $\frac{1}{4}$ corner of Sec. 6, T. 3 N., R. 71 W; thence northerly 0.5 miles, more or less, to the NW corner of said Sec. 6; thence easterly 1 mile, more or less, to the NE corner of said Sec. 6; thence easterly 21 miles, more or less, to the NE corner of Sec. 3, T. 3 N., R. 68 W; thence northerly 1 mile, more or less, to the NW corner of Sec. 35, T. 4 N., R. 68 W; thence easterly 2 miles, more or less, to the NE corner of Sec. 36, T. 4 N., R. 68 W; thence northerly 1 mile, more or less, to the NW corner of Sec. 30, T. 4 N., R. 67 W; thence easterly 4 miles, more or less, to the NE corner of Sec. 27, T. 4 N., R. 67 W, and the point of beginning, all west of the 6th Principal Meridian.

13. The territory above described should be constituted,

created and established as a water conservancy district under the Water Conservancy Act of Colorado under the corporate name of St. Vrain and Left Hand Water Conservancy District.

14. The Board of Directors of the District shall consist of nine directors, one director shall be appointed from each of seven districts, the boundaries of which said director districts are described as follows:

Director District No. 1:

That portion of Weld County, Colorado, described as follows:

Beginning at the NE corner of Sec. 27, T. 4 N., R. 67 W; thence southerly 3 miles, more or less, to the SE corner of Sec. 3, T. 3 N., R. 67 W; thence westerly 1 mile, more or less to the SW corner of said Sec. 3; thence southerly 4.5 miles, more or less, to the E $\frac{1}{4}$ corner of Sec. 33, T. 3 N., R. 67 W; thence westerly 1 mile, more or less, to the W $\frac{1}{4}$ corner of said Sec. 33; thence southerly 0.5 miles, more or less, to the SE corner of Sec. 32; thence westerly 1 mile, more or less, to the SW corner of Sec. 32, T. 3 N., R. 67 W; thence southerly 0.5 miles, more or less, to the E $\frac{1}{4}$ corner of Sec. 6, T. 2 N., R. 67 W; thence westerly 4 miles, more or less, to the W $\frac{1}{4}$ corner of Sec. 3, T. 2 N., R. 68 W; thence northerly 6.5 miles, more or less, to the NW corner of Sec. 3, T. 3 N., R. 68 W; thence easterly 1 mile, more or less, to the NE corner of said Sec. 3; thence northerly 1 mile, more or less, to the NW corner of Sec. 35, T. 4 N., R. 68 W; thence easterly 2 miles, more or less, to the NE corner of Sec. 36, T. 4 N., R. 68 W; thence northerly 1 mile, more or less, to the NW corner of Sec. 30, T. 4 N., R. 67 W; thence easterly 4 miles, more or less, to the NE corner of Sec. 27, T. 4 N., R. 67 W. and the point of beginning, all west of the 6th Principal Meridian.

Director District No. 2:

A portion of Weld and Boulder Counties, Colorado, described as follows:

Beginning at the NE corner of Sec. 4, T. 3 N., R. 68 W; thence southerly 5 miles, more or less, to the SE corner of Sec. 28, T. 3 N., R. 68 W; thence westerly 3 miles, more or less, to the SW corner of Sec. 30, T. 3 N., R. 68 W; thence along the county line road northerly 1 mile, more or less, to the NW corner of said Sec. 30; thence westerly 3 miles, more or less, to the SW corner of Sec. 22, T. 3 N., R. 69 W; thence northerly 2 miles, more or less, to the SE corner of Sec. 9; thence westerly 4 miles, more or less, to the SW corner of Sec. 12, T. 3 N., R. 70 W; thence northerly 2 miles, more or less, to the NW corner of Sec. 1, T. 3 N., R. 70 W; thence easterly 10 miles, more or less, to the NE corner of Sec. 4, T. 3 N., R. 68 W. and the

point of beginning, all west of the 6th Principal Meridian.

Director District No. 3:

A portion of Boulder County described as follows:

Beginning at the NE corner of Sec. 33, T. 3 N., R. 68 W; thence southerly 2 miles, more or less, to the SE corner of Sec. 4, T. 2 N., R. 68 W; thence westerly 1 mile, more or less, to the SW corner of said Sec. 4; thence southerly 1 mile, more or less, to the SE corner of Sec. 8; thence westerly 1 mile, more or less, to the SW corner of said Sec. 8; thence northerly 0.5 miles, more or less to the $W\frac{1}{4}$ corner of said Sec. 8, T. 2 N., R. 68 W; thence westerly 3 miles, more or less, to the $E\frac{1}{4}$ corner of Sec. 10, T. 2 N., R. 69 W; thence along the southerly and westerly Longmont City Limits to the $E\frac{1}{4}$ corner of Sec. 5; thence westerly 1 mile, more or less, to the $W\frac{1}{4}$ corner of said Sec. 5; thence northerly 0.5 miles, more or less, to the SE corner of Sec. 31, T. 3 N., R. 69 W; thence westerly 1.5 miles, more or less, to the $S\frac{1}{4}$ corner of Sec. 36, T. 3 N., R. 70 W; thence northerly 0.5 miles, more or less, to the center of said Sec. 36; thence westerly 0.5 miles, more or less, to the $W\frac{1}{4}$ corner of said Sec. 36; thence northerly 0.5 miles, more or less, to the NW corner of said Sec. 36; thence westerly 0.5 miles, more or less, to the $S\frac{1}{4}$ corner of Sec. 26; thence northerly 0.5 miles, more or less, to the center of said Sec. 26; thence westerly 1 mile, more or less, to the center of Sec. 27; thence northerly 0.5 miles, more or less, to the $S\frac{1}{4}$ corner of Sec. 22; thence westerly 0.5 miles, more or less, to the SW corner of said Sec. 22; thence northerly 0.5 miles, more or less, to the $W\frac{1}{4}$ corner of said Sec. 22; thence westerly 2 miles, more or less, to the $W\frac{1}{4}$ corner of Sec. 20; thence northerly 1.5 miles, more or less, to the NW corner of Sec. 17, T. 3 N., R. 70 W; thence easterly 8 miles, more or less, to the NE corner of Sec. 16, T. 3 N., R. 69 W; thence southerly 2 miles, more or less, to the SE corner of Sec. 21; thence easterly 3 miles, more or less, to the NE corner of Sec. 25, T. 3 N., R. 69 W; thence along the county road southerly 1 mile, more or less, to the SE corner of said Sec. 25; thence easterly 3 miles, more or less, to the NE corner of Sec. 33, T. 3 N., R. 68 W. and the point of beginning, all west of the 6th Principal Meridian.

Director District No. 4:

A portion of Weld and Boulder Counties, Colorado, described as follows:

Beginning at the $E\frac{1}{4}$ corner of Sec. 7, T. 2 N., R. 68 W; thence southerly 1.5 miles, more or less to the SE corner of Sec. 18, T. 2 N., R. 68 W; thence westerly 7.5 miles, more or less, to the $S\frac{1}{4}$ corner of Sec. 13, T. 2 N., R. 70 W; thence northerly 1.5 miles, more or less, to the center of Sec. 12; thence westerly 2.5 miles, more or less, to the $W\frac{1}{4}$ corner of Sec. 10; thence northerly 1.5 miles, more or less, to the NW corner of Sec. 3; thence westerly 3 miles, more or less, to the SW corner of Sec. 31, T. 3 N., R. 70 W; thence northerly 3 miles, more or less, to the NW corner of Sec. 19; thence easterly 1 mile, more or less, to the NE corner of said Sec. 19; thence southerly 0.5 miles, more or less, to the $E\frac{1}{4}$ corner of said Sec. 19; thence easterly 2 miles, more or less, to the $W\frac{1}{4}$ corner of Sec. 22; thence southerly 0.5 miles, more or less, to the SW

corner of said Sec. 22; thence easterly 0.5 miles, more or less, to the $S\frac{1}{4}$ corner of said Sec. 22; thence southerly 0.5 miles, more or less, to the center of Sec. 27; thence easterly 1 mile, more or less, to the center of Sec. 26; thence southerly 0.5 miles, more or less, to the $S\frac{1}{4}$ corner of said Sec. 26; thence easterly 0.5 miles, more or less, to the SE corner of said Sec. 26; thence southerly 0.5 miles, more or less, to the $W\frac{1}{4}$ corner of Sec. 36; thence easterly 0.5 miles, more or less, to the center of said Sec. 36; thence southerly 0.5 miles, more or less, to the $S\frac{1}{4}$ corner of said Sec. 36, T. 3 N., R. 70 W; thence easterly 1.5 miles, more or less, to the NW corner of Sec. 5, T. 2 N., R. 69 W; thence southerly 0.5 miles, more or less, to the $W\frac{1}{4}$ corner of said Sec. 5; thence easterly 1.0 mile, more or less, to the $E\frac{1}{4}$ corner of said Sec. 5; thence along the westerly and southerly Longmont City limits to the $E\frac{1}{4}$ corner of Sec. 10, T. 2 N., R. 69 W; thence easterly 3 miles, more or less, to the $E\frac{1}{4}$ corner of Sec. 7, T. 2 N., R. 68 W. and the true point of beginning, all west of the 6th Principal Meridian.

Director District No. 5:

That portion of Boulder County, Colorado, described as follows:

Beginning at the $N\frac{1}{4}$ corner of Sec. 22, T. 2 N., R. 69 W. of the 6th P.M.; thence southerly 2 miles, more or less, to the $S\frac{1}{4}$ corner of Sec. 27; thence westerly 2.5 miles, more or less, to the SW corner of Sec. 29; thence southerly 0.5 miles, more or less, to the $E\frac{1}{4}$ corner of Sec. 31; thence westerly 1 mile, more or less, to the $E\frac{1}{4}$ corner of Sec. 36, T. 2 N., R. 70 W; thence southerly 0.5 miles, more or less, to the SE corner of said Sec. 36; thence westerly 1 mile, more or less, to the SW corner of said Sec. 36; thence northerly 0.5 miles, more or less, to the $W\frac{1}{4}$ corner of said Sec. 36; thence westerly 1 mile, more or less, to the $E\frac{1}{4}$ corner of Sec. 34; thence southerly 0.5 miles, more or less, to the SE corner of said Sec. 34; thence westerly 4 miles, more or less, to the SW corner of Sec. 31; thence northerly 1 mile, more or less, to the SE corner of Sec. 25, T. 2 N., R. 71 W; thence westerly 2 miles, more or less, to the SW corner of Sec. 26; thence northerly 2 miles, more or less, to the NW corner of Sec. 23; thence easterly 1 mile, more or less, to the NE corner of said Sec. 23; thence northerly 1 mile, more or less, to the NW corner of Sec. 13; thence easterly 1 mile, more or less, to the NE corner of said Sec. 13, T. 2 N., R. 71 W; thence northerly 2 miles, more or less, to the NW corner of Sec. 6, T. 2 N., R. 70 W; thence easterly 3 miles, more or less, to the NE corner of Sec. 4; thence southerly 1.5 miles, more or less, to the $W\frac{1}{4}$ corner of Sec. 10; thence easterly 2.5 miles, more or less, to the center of Sec. 12; thence southerly 1.5 miles, more or less, to the $S\frac{1}{4}$ corner of Sec. 13; thence easterly 4 miles, more or less, to the $N\frac{1}{4}$ corner of Sec. 22, T. 2 N., R. 69 W. and the point of beginning, all west of the 6th Principal Meridian.

Director District No. 6:

That portion of Boulder and Larimer Counties, Colorado, described as follows:

Beginning at the NE corner of Sec. 2, T. 3 N., R. 70 W.

of the 6th P.M., thence southerly 2 miles, more or less, to the SE corner of Sec. 11; thence westerly 4 miles, more or less, to the NW corner of Sec. 17; thence southerly 1 mile, more or less, to the SW corner of Sec. 17; thence westerly 1 mile, more or less, to the NW corner of Sec. 19; T. 3 N., R. 70 W; thence southerly 5 miles, more or less, to the SE corner of Sec. 12, T. 2 N., R. 71 W; thence westerly 1 mile, more or less, to the SW corner of said Sec. 12; thence southerly 1 mile, more or less, to the SE corner of Sec. 14; thence westerly 1 mile, more or less, to the SW corner of said Sec. 14; thence southerly 3 miles, more or less, to the SE corner of Sec. 34; thence westerly 2 miles, more or less, to the NE corner of Sec. 5, T. 1 N., R. 71 W; thence southerly 1 mile, more or less, to the SE corner of said Sec. 5; thence westerly 1.5 miles, more or less, to the N $\frac{1}{4}$ corner of Sec. 7; thence southerly 0.5 miles, more or less, to the center of said Sec. 7; thence westerly 3.5 miles, more or less, to the E $\frac{1}{4}$ corner of Sec. 9, T. 1 N., R. 72 W; thence southerly 1 mile, more or less, to the E $\frac{1}{4}$ corner of Sec. 16; thence westerly 7 miles, more or less, to the W $\frac{1}{4}$ corner of Sec. 16, T. 1 N., R. 73 W; thence northerly 0.5 miles, more or less, to the NW corner of said Sec. 16; thence westerly 3.5 miles, more or less, to the Continental Divide; thence northerly on a meandering line along said Continental Divide to an intersection with the Boulder-Larimer County line; thence along said line easterly 3 miles, more or less; whence the NW corner of Sec. 4, T. 3 N., R. 73 W. bears easterly 1 mile more or less; thence northerly 2 miles, more or less; thence easterly 2 miles, more or less, to the NW corner of Sec. 27, T. 4 N., R. 73 W; thence continuing easterly 2 miles, more or less, to the NE corner of Sec. 26; thence southerly 2 miles, more or less, to the SE corner of Sec. 35, T. 4 N., R. 73 W; thence easterly 1 mile, more or less, to the NW corner of Sec. 6, T. 3 N., R. 72 W; thence southerly 0.5 miles, more or less, to the W $\frac{1}{4}$ corner of said Sec. 6; thence easterly 6 miles, more or less, to the W $\frac{1}{4}$ corner of Sec. 6, T. 3 N., R. 71 W; thence northerly 0.5 miles, more or less, to the NW corner of said Sec. 6; thence easterly 1 mile, more or less, to the NE corner of said Sec. 6; thence continuing easterly 10 miles, more or less, to the NE corner of Sec. 2, T. 3 N., R. 70 W. and the point of beginning, all west of the 6th Principal Meridian.

Director District No. 7:

That portion of Boulder County, Colorado, within the limits of the City of Longmont.

Said director districts are formed solely for the purpose of selection of directors. The remaining two directors shall be appointed at large from the district as a whole, but no more than two directors shall be appointed from any one of the said seven districts. A director to be eligible for the office of director must reside in the district which he represents. All directors shall be appointed by the Court in accordance with the provisions of Colorado Revised Statutes of 1963, Section

150-5-9, as amended.

WHEREFORE, it is by the Court ordered, adjudged, declared and decreed that the territory above described be and the same hereby is organized, constituted, created and established as a water conservancy district under the Water Conservancy Act of Colorado, with the corporate name of St. Vrain and Left Hand Water Conservancy District, with its office or principal place of business in the city of Longmont, Colorado, in Boulder County, Colorado.

Done in open Court this 19th day of April, 1971.

BY THE COURT:

April 19, 1971
Mary M. Connell
Glenn Carter
COUNTY CLERK

Ronald A. Langente
District Judge

AMENDED AND RESTATED BYLAWS
OF
THE ST. VRAIN AND LEFT HAND WATER CONSERVANCY DISTRICT

ARTICLE I

Identification

- 1.1 NAME.** The St. Vrain and Left Hand Water Conservancy District (the District).
- 1.2 PRINCIPAL OFFICE.** The principal office of the District shall be in Longmont, Colorado, or at such other place within the boundaries of the district as the Board of Directors may designate.
- 1.3 ORGANIZATION AND PURPOSE.** The District was established by decree of the Weld County District Court in Civil Action No. 20881 on April 19, 1971 (the Decree), and is organized and operates pursuant to the provisions of the Colorado Water Conservancy Act, as amended (the Act), which is contained in Article 45 of Title 37, C.R.S. The organization and operation of the District shall be in accordance with the provisions of the Act, the Decree, and applicable state law. Any provisions of these Bylaws which are inconsistent with the Act, the Decree, or applicable state law shall be void.

ARTICLE II

Board of Directors

- 2.1 GENERAL POWERS.** The business and affairs of the District shall be managed by its Board of Directors (the Board), except as otherwise provided in the Act or the Decree.
- 2.2 NUMBER, TENURE AND QUALIFICATIONS.** The Board shall consist of nine directors. One director shall be appointed from each of the District's seven Director Districts and the remaining two directors shall be appointed at large from the District as a whole, but no more than two directors shall be appointed from any one of the seven Director Districts. A director must reside within the District as a whole, within the Director District which s/he represents, and own real property in the District. Additionally, a director must be knowledgeable in water matters. Each director shall hold office during the term for which s/he is appointed and until his or her successor is duly appointed and has qualified. Each director shall furnish a corporate surety bond at the expense of the District, in the amount and form fixed and approved by the Court, conditioned on the faithful performance of his or her duties as a director.
- 2.3 RESIGNATION AND VACANCIES.** Any director may resign by giving written notice to the President or to the Secretary of the District prior to the expiration of his or her term. Such resignation shall take effect at the time the director's successor is duly appointed and has qualified. Unless otherwise specified in the written notice, the District's acceptance of such resignation shall not be necessary to make it effective. Any vacancy occurring on the Board shall be filled by the Court for the duration of the resigning director's unexpired term. A notice of the vacancy to be filled shall

be published once a week for two successive weeks in newspapers of general circulation in Weld County, Boulder County and Larimer County, Colorado and shall be concurrently posted on the District's web site, or the media outlet of the Board's choice. Said notice shall contain a date, to be selected by the Board of Directors, by which applications for the vacancy must be submitted to the Court, but in no case shall said date be less than ten days after the last newspaper publication. Said notice shall also specify the address of the Court to which applications may be sent, and that the applicant must have resided within the District as a whole for a period of one year, must reside at the time of application within the Director District which s/he desires to represent, and must own real property in the District.

2.4 DUTIES OF A DIRECTOR. Before entering upon his or her official duties, each director shall take and subscribe to an oath before an officer authorized to administer oaths, that s/he will support the Constitution of the United States and of the State of Colorado and will honestly, faithfully, and impartially perform the duties of his or her office, and that s/he will not be interested directly or indirectly in any contract let by the District. A copy of each director's oath shall be filed in the office of the Clerk of the Weld County District Court. Regular attendance at Board meetings shall be expected of each director and shall be considered a minimum requirement for faithful discharge of a director's duties. If any director is absent, without reasonable explanation, for three consecutive regular meetings, or more than one-third of the regular meetings of the Board held in any calendar year, notice to that effect may be directed to the Court with the request and recommendation that the director be removed from office and that a successor be appointed in accordance with the procedures set forth in 2.3, above.

2.5 REGULAR MEETINGS. A regular meeting of the Board shall be held without other notice than this Bylaw on the second Monday of each month at 1: 00 p.m. The Board of Directors may provide, by resolution or by amendment to these Bylaw,s the time and place for the holding of additional regular meetings of the Board without other notice than such resolution or Bylaw amendment. Notice of a regular meeting shall be posted in a designated public place within the boundaries of the District no less than 24 hours prior to the holding of the regular meeting. The public place or places for posting such notice shall be designated annually at the Board's first regular meeting of each calendar year. The posting shall include specific agenda information where possible.

2.6 SPECIAL MEETINGS. Special meetings of the Board may be called by or at the request of the President or any three directors. The directors calling a special meeting of the Board may fix any place within the boundaries of the District as the place for holding the special meeting called by them.

2.7 NOTICE OF SPECIAL MEETINGS. Public notice of special meetings shall be posted in the place(s) designated in 2.5, above, at least twenty-four hours prior thereto. Notice shall be provided to the directors personally, or mailed to or sent via electronic/digital means (i.e. email) to each director at his or her mailing or electronic addresses as shown by the records of the District. If mailed, such notice shall be deemed to be delivered when deposited in the United States Mail so addressed, with postage thereon prepaid. Any director may waive notice of a special meeting expressly called or convened. The attendance of a director at a special meeting shall constitute a waiver of notice of such meeting, except where a director attends a special meeting for the express purpose of objecting to the transaction of any business conducted therein because the special meeting is not lawfully called or convened. The purpose of any special meeting of the Board shall be specified in the notice of such meeting.

2.8 QUORUM. A majority of the members of the Board as constituted at any given time shall constitute a quorum for the transaction of business at any meeting of the Board, but if less than such majority is present at the meeting, a majority of the directors present may adjourn the meeting from time to time without further notice.

2.9 MANNER OF ACTING. The act of the majority of the directors present at a meeting at which a quorum is present shall be the act of the Board, except as provided in 10.1, below.

2.10 MEETING PARTICIPATION BY TELEPHONE. A director may participate at a meeting by telephone or other electronic means if the director notifies the Secretary of his or her need to so attend at least one business day prior to the meeting. Upon such notification, the Secretary shall allow the director to so participate if the District is capable of providing the electronic means for the director to actively participate in the meeting. The director's participation must be, at a minimum, audible both to the public and to the technology recording the meeting. All matters on which the Board votes during such meeting must be done via roll call vote so that there is no question as to how the director participating by electronic means cast his or her vote.

2.11 COMPENSATION AND REIMBURSEMENT. Each director shall receive as compensation for his or her service such sum as shall be ordered by the Court, not in excess of the amount authorized by the Act. Each director shall also be reimbursed by the District for any and all necessary traveling expenses actually expended while engaged in the performance of his or her duties.

2.12 PRESUMPTION OF ASSENT. A director who is present at any meeting of the Board at which action on any District matter is taken shall be presumed to have assented to the action taken unless his or her dissent shall be entered in the minutes of the meeting or unless he or she shall file his or her written dissent to such action with the person acting as the secretary of the meeting before the adjournment thereof. Such rights to dissent shall not apply to a director who voted in favor of such action.

2.13 COMMITTEES. The Board, by resolution adopted by a majority of the directors as constituted at that time, may constitute a committee or more than one committee, each consisting of two or more directors and any other such individuals as deemed by the Board to be necessary, which committee shall have and may exercise such authority of the Board as may be set forth in said resolution. No such delegation of authority shall operate to relieve the Board or any directors from any responsibility imposed by law.

ARTICLE III

Officers and Agents

3.1 GENERAL. The officers of the District shall be a President, who shall also serve as Chairman of the Board, one or more Vice-Presidents, a Secretary, an Assistant Secretary, a Treasurer, and an Assistant Treasurer. The Board may appoint such other officers, assistant officers, committees and agents, assistant secretaries and assistant treasurers, as it may consider necessary, who shall be chosen in such manner and hold their offices for such terms and have such authority and duties as from time to time may be determined by the Board. In all cases where the duties of any officer, agent or employee are not prescribed by the Bylaws or by the Board, such officer, agent or employee shall follow the orders and instructions of the President.

3.2 ELECTION AND TERM OF OFFICE. The officers of the District shall be elected by the Board annually at the first meeting of the calendar year. Each officer shall hold office until the first of the following to occur: until his or her successor shall have been duly elected and shall have qualified; or until his or her death; or until s/he shall resign; or until s/he shall have been removed in the manner hereinafter provided.

3.3 REMOVAL. Any officer or agent may be removed by the Board whenever, in its judgment, the best interests of the District will be served thereby, but such removal shall be without prejudice to the contract rights, if any, of the person so removed. Election or appointment of an officer or agent shall not in itself create contract rights.

3.4 VACANCIES. A vacancy in any office of the Board, however occurring, may be filled by the Board of Directors for the unexpired portion of the term.

3.5 PRESIDENT. The President shall be the chief executive officer of the District and, subject to the direction and supervision of the Board, shall have general control of its affairs and business and general supervision of its officers, agents and the Executive Director. The President shall be a member of the Board.

3.6 VICE PRESIDENTS. The Vice President or Vice Presidents shall assist the President and shall perform such duties as may be assigned to them by the President or by the Board. In the absence of the President, the Vice President designated by the Board or (if there be no such designation) designated in writing by the President shall have the powers and shall perform the duties of the President. If no such designation shall be made, all Vice Presidents may exercise such powers and perform such duties. Each of the Vice Presidents shall be members of the Board.

3.7 SECRETARY. The Secretary shall be responsible for all duties specified in the Act and such other duties as may be assigned by the President or by the Board. In addition, the Secretary shall be custodian of the District's records and of the seal of the District and affix the seal to all documents when authorized by these Bylaws, by the Act or by the Board. The Secretary shall, in general, be responsible for all duties incident to the office of the Secretary and such other duties as may be assigned from time to time by the Board. The Assistant Secretary shall perform the duties of Secretary in the absence of the Secretary. The Secretary and the Assistant Secretary may or may not be members of the Board.

3.8 TREASURER. The Treasurer shall be the principal financial officer of the District and shall be responsible for the care and custody of all funds, securities, evidences of indebtedness and other personal property of the District in accordance with the instructions of the Board. The Treasurer shall be responsible for all other duties incident to the office of the Treasurer and, upon request of the Board, shall make such reports to it as may be required at any time. The Assistant Treasurer shall perform the duties of the Treasurer in the absence of the Treasurer. The Treasurer and the Assistant Treasurer may or may not be members of the Board.

3.9 SURETY BONDS. The Secretary and Treasurer, and such other agents or employees of the District as the Court and the Board may direct, shall furnish corporate surety bonds, at the expense of the District, in amount and form fixed and approved by the Court and the Board conditioned upon the faithful performance of their respective duties.

3.10 EXECUTIVE DIRECTOR. The Board shall have the authority to employ an executive director upon such terms and conditions and with such salary as the Board of Directors may determine from time to time. The executive director shall work under the direction of the President and the Board and with the agents of the District in carrying out the activities and functions of the District and shall be responsible for the day-to-day administration of the District's business and affairs, and for the supervision of all District employees, including, but not limited to, ensuring that the minutes of the Board and any constituted committees be recorded and kept and that all notices are given in accordance with these Bylaws or as required by law.

3.11 NEGOTIABLE INSTRUMENTS, DEEDS AND CONTRACTS. All checks, drafts, notes, bonds, bills of exchange, and orders for the payment of money of the District; all deeds, mortgages, and other written contracts and agreements to which the District shall be a party; and all assignments or endorsements of securities owned or issued by the District shall, unless otherwise directed by the Board or unless otherwise required by law, be signed by the President or by any two of the following officers who are different persons: Vice President, Secretary (or Assistant Secretary), or Treasurer (or Assistant Treasurer). The Board may by resolution, however, authorize any one of such officers to sign any of such instruments, for and on behalf of the District, without necessity of countersignature; and may designate officers, employees or agents of the District, other than those named above, who may, in the name of the District, sign such instruments.

ARTICLE IV

Indemnification of Officers and Directors

4.1 INDEMNIFICATION. Each director and officer of this District shall be indemnified by the District against all costs and expenses actually and necessarily incurred by him or her in connection with the defense of any action, suit or proceeding in which s/he may be involved or to which s/he may be made a party by reason of his or her being or having been such director or officer, except in relation to matters as to which s/he shall be finally adjudged in such action, suit or proceeding to be liable for negligence or misconduct in the performance of duty.

ARTICLE V

District Finances

5.1 FISCAL YEAR. The fiscal year of the District shall begin on the first day of January and end on the 31st day of December of each year.

5.2 ANNUAL BUDGET. The Board shall appoint a budget officer who shall prepare and submit to the Board, on or before October 15 of each year, a proposed budget accompanied by a statement of explanation describing any significant features of the proposed budget. The budget shall reflect revenues and expenditures for each fund established by the Board. Upon receipt of such proposed budget, the Board shall cause notice to be published in a newspaper of general circulation in the District stating that a proposed budget has been submitted to the Board, that the proposed budget is available for public inspection at the District offices, that the Board will consider the adoption of the proposed budget at the date, time and place

designated, and that any interested elector may inspect the proposed budget and file or register any objections thereto at any time prior to the final adoption of the budget. On the day set for consideration of the proposed budget, the Board shall review the proposed budget and may revise, alter, increase or decrease the items as it deems necessary. The Board shall then formally adopt the budget setting forth the revenues and expenditures for the ensuing fiscal year. Within 30 days of adoption of the budget, the Board shall cause a certified copy of such budget to be filed with the Division of Local Government in the Department of Local Affairs. At a meeting held no later than December 31 each year, the Board shall enact a resolution making appropriations for the ensuing fiscal year. The amounts appropriated shall not exceed the amounts established in the adopted budget.

5.3 CERTIFICATION OF MILL LEVY. On or before December 15 of each year, the Board shall certify to the Board of County Commissioners of each county represented within the District, the mill levy or levies required to raise revenues as set forth in the annual budget and as provided and authorized by statute.

5.4 INVESTMENT OF FUNDS OF THE DISTRICT. All funds of the District not required for current operations shall be invested, until needed, in accordance with the provision of Section 24-75-601 C.R.S. et seq., as it presently exists or as it may hereafter be amended.

5.5 ANNUAL AUDIT. The Board shall cause to be made an annual audit of the financial affairs and transactions of all funds and activities of the District for each fiscal year. The audit shall be made as of the end of the fiscal year and shall be conducted in accordance with generally accepted auditing standards by an independent certified public accountant, registered accountant, or partnership of certified public accountants or registered accountants, licensed to practice in the State of Colorado, but in no event shall any of the above individuals or firms audit the records, books or accounts which they have maintained. A copy of the annual audit shall be maintained in the District office as a public record for public inspection at all reasonable times. The District shall forward a copy of the annual audit to the State Auditor as provided by law.

ARTICLE VI

Miscellaneous

6.1 PUBLIC MEETINGS. All meetings of the Board shall be public meetings and open to the public at all times. The Board may convene an executive session at a regular or special meeting upon the announcement by the Board to the public of the topic for discussion therein, including the specific citation to the provision of Section 24-6-402(3), C.R.S., authorizing the Board to meet in an executive session, the identification of the particular matter to be discussed in as much detail as possible without compromising the purpose for which the executive session is authorized and the affirmative vote of two-thirds of the

quorum present of the Board. The Board may convene an executive session for the sole purpose of considering any of the following matters:

- a. The purchase, acquisition, lease, transfer, or sale of any real, personal, or other property interest; except that no executive session shall be held for the purpose of concealing the fact that a director has a personal interest in such purchase, acquisition, lease, transfer, or sale;
- b. Conferences with an attorney representing the District for the purposes of receiving legal advice on specific legal questions. Mere presence or participation of an attorney at an executive session of the Board is not sufficient to satisfy the statutory constraints on executive session;
- c. Matters required to be kept confidential by federal or state law or rules and regulations;
- d. Specialized details of security arrangements or investigations;
- e. Determining positions relative to matters that may be subject to negotiations with employees; developing strategy for and receiving reports on the progress of such negotiations; and instructing negotiators;
- f. Personnel matters except if the employee who is the subject of the session has requested an open meeting, or if the personnel matter involves more than one employee, and all of the involved employees have requested an open meeting; and
- g. Consideration of any documents protected by the mandatory nondisclosure provisions of Part 2, Article 72 of Title 24, Colorado Revised Statutes, commonly known as the "Open Records Act."

ARTICLE VII

Voting

7.1 VOTING. The manner of voting on matters before the Board of Directors shall be by voice vote unless otherwise requested by motion by a member of the Board of Directors.

ARTICLE VIII

Motions and Resolutions

8.1 MOTIONS AND RESOLUTIONS. The Board may act on all business and issues coming before it either by motion or by resolution. Motions and resolutions may be continuing in nature and effect if expressly stated in said motion or resolution. Resolutions shall set forth in reasonable detail any findings by the Board necessary for the adoption of the particular resolution. The following actions shall be performed by resolution:

- a. Adoption of the budget;
- b. Establishment of mill levy or levies, special assessments, and other sources of revenue as set forth by statute;
- c. Appropriation of expenditures for the budget year;
- d. Declaration of vacancies on the Board;
- e. The acquisition, purchase, sale, lease or creation of encumbrance of any real property;
- f. Amendments to Bylaws;
- g. Any action required by statute to be in the form of a resolution; and,
- h. Any action requested to be in the form of a resolution by the Chairman of the Board.

Resolutions shall be consecutively numbered each year and shall be in written form provided, however, that an oral resolution may be adopted and shall be reduced to writing for review and ratification by the Board at its next regular meeting.

All other Board action shall be by motion, which shall not require findings upon which the motion is based.

ARTICLE IX

Parliamentary Authority

9.1 Roberts Rules of Order, as revised from time to time, shall govern the conduct of business in all cases in which they are applicable and not in conflict with these Bylaws or the applicable state law

ARTICLE X

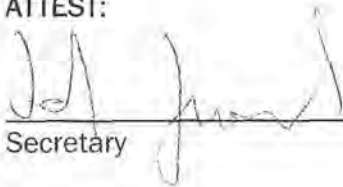
Amendments

10.1 The Board shall have the power to make, amend and repeal the Bylaws at any regular meeting of the Board or at any special meeting called for that purpose; if at least 14 days' written notice is given of the intention to amend, repeal or to adopt new Bylaws at such regular or special meeting. Any such amendment, repeal or adoption shall require the affirmative vote of two-thirds of the members of the entire Board.

APPROVED AND ADOPTED by resolution of the Board of Directors this 13th day of September, 2010.


President

ATTEST:


Secretary

THE ST. VRAIN AND LEFT HAND WATER CONSERVANCY DISTRICT

BYLAWS CERTIFICATE

The undersigned certifies that he or she is the Secretary of THE ST. VRAIN AND LEFT HAND WATER CONSERVANCY DISTRICT, and, that, as such, is authorized to execute this Certificate on behalf of said District, and further certifies that attached hereto is a complete and correct copy of the presently effective Bylaws of said District.

DATED: September 13, 2010


Secretary

St. Vrain & Left Hand Water Conservancy District Enterprise Fund Bank Balance

Dec 31, 13

ASSETS

Current Assets

Checking/Savings

1100 · Enterprise Fund

1101 · Enterprise Fund Chk-1st Bank

13,487.22

1102 · Enterprise Fund MM 1st Bank

177,949.71

Total 1100 · Enterprise Fund

191,436.93

Total Checking/Savings

191,436.93

Total Current Assets

191,436.93

St. Vrain & Left Hand Water Conservancy District Enterprise Fund Revenue December 2013

Dec 13

Jan - Dec 13

Income

4100 · Enterprise Fund Revenue

4105 · Augmentation Membership Fees

0.00

23,877.26

4115 · Interest Income - Enterprise

24.35

312.91

4120 · District Water Rental CBT

0.00

9,130.00

Total 4100 · Enterprise Fund Revenue

24.35

33,320.17

Total Income

24.35

33,320.17

St. Vrain & Left Hand Water Conservancy District

Enterprise Fund Expenses

December 2013

	TOTAL
Expense	
5000 · Enterprise Fund Expense	
5100 · Administration	
5105 · Salaries and Wages	3,720.15
5110 · Temporary Employees	-159.30
5115 · Workmans Comp	61.05
5120 · Payroll Expense	371.56
5125 · Health Insurance	682.28
5130 · Employee Retirement	111.60
5135 · Training and Conferences	39.00
5145 · Travel	132.69
Total 5100 · Administration	4,959.03
 5300 · Operational	
5345 · Rent	362.60
5350 · Telephone and Internet	91.30
5355 · Office Supplies	146.69
Total 5300 · Operational	600.59
 5400 · Outside Services	
5410 · Legal Fees	2,698.45
5420 · FEMA - Lake No.4 Repairs	3,597.41
Total 5400 · Outside Services	6,295.86
 Total 5000 · Enterprise Fund Expense	11,855.48

St. Vrain & Left Hand Water Conservancy District
Enterprise Fund
Budget Report

January 7, 2014

	Jan - Dec 13	Budget	\$ Over Budget	% of Budget
Income				
4100 · Enterprise Fund Revenue				
4105 · Augmentation Membership Fees	23,877.26	27,856.00	-3,978.74	85.72%
4115 · Interest Income - Enterprise	312.91	180.00	132.91	173.84%
4120 · District Water Rental CBT	9,130.00			
4130 · Lake No. 4	0.00	720.00	-720.00	0.0%
4140 · Longmont Water Rental CBT	0.00	2,500.00	-2,500.00	0.0%
4145 · Miscellaneous Water Rental	0.00	2,805.00	-2,805.00	0.0%
4155 · Transfer from General Fund	0.00	3,612.00	-3,612.00	0.0%
Total 4100 · Enterprise Fund Revenue	33,320.17	37,673.00	-4,352.83	88.45%
Total Income	33,320.17	37,673.00	-4,352.83	88.45%
Gross Profit	33,320.17	37,673.00	-4,352.83	88.45%
Expense				
5000 · Enterprise Fund Expense				
5100 · Administration				
5105 · Salaries and Wages	19,176.87	20,298.00	-1,121.13	94.48%
5110 · Temporary Employees	1,569.44	500.00	1,069.44	313.89%
5115 · Workmans Comp	173.40	126.00	47.40	137.62%
5120 · Payroll Expense	1,694.58	1,796.00	-101.42	94.35%
5125 · Health Insurance	3,567.55	3,108.00	459.55	114.79%
5130 · Employee Retirement	574.76	609.00	-34.24	94.38%
5135 · Training and Conferences	545.88	510.00	35.88	107.04%
5140 · Liability Insurance	586.20	498.00	88.20	117.71%
5145 · Travel	526.64	825.00	-298.36	63.84%
5150 · Miscellaneous	0.00	150.00	-150.00	0.0%
Total 5100 · Administration	28,415.32	28,420.00	-4.68	99.98%
5300 · Operational				
5305 · Copeland Lake	0.00	2,200.00	-2,200.00	0.0%
5310 · Colorado Big T Assessments	2,807.56	2,610.00	197.56	107.57%
5315 · Lake No.4	4,059.05	16,500.00	-12,440.95	24.6%
5325 · Water Rental	0.00	1,500.00	-1,500.00	0.0%
5340 · Special Projects	0.00	1,500.00	-1,500.00	0.0%
5345 · Rent	2,175.60	2,176.00	-0.40	99.98%
5350 · Telephone and Internet	504.03	495.00	9.03	101.82%
5355 · Office Supplies	965.97	750.00	215.97	128.8%
5360 · Native Water Assessments	3,154.15	4,000.00	-845.85	78.85%
Total 5300 · Operational	13,666.36	31,731.00	-18,064.64	43.07%
5400 · Outside Services				
5405 · Consulting Engineering	4,780.00	20,000.00	-15,220.00	23.9%
5410 · Legal Fees	6,898.41	5,200.00	1,698.41	132.66%
5415 · Miscellaneous Consulting	8,788.05	10,000.00	-1,211.95	87.88%
5420 · FEMA - Lake No.4 Repairs	4,637.91			
Total 5400 · Outside Services	25,104.37	35,200.00	-10,095.63	71.32%
Total 5000 · Enterprise Fund Expense	67,186.05	95,351.00	-28,164.95	70.46%

St. Vrain & Left Hand Water Conservancy District **Enterprise Fund Bank Balance**

December 2012

Dec 31, 12

ASSETS

Current Assets

Checking/Savings

1100 · Enterprise Fund

1101 · Enterprise Fund Chk-1st Bank	4,500.04
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1102 · Enterprise Fund MM 1st Bank	225,337.91
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Total 1100 · Enterprise Fund	229,837.95
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Total Checking/Savings	229,837.95
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St. Vrain & Left Hand Water Conservancy District **Enterprise Fund Revenue**

December 2012

Dec 12

Jan - Dec 12

Income

4100 · Enterprise Fund Revenue

4105 · Augmentation Membership Fees	0.00	21,310.48
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4115 · Interest Income - Enterprise	29.49	243.81
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4120 · District Water Rental CBT	0.00	8,961.06
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4140 · Longmont Water Rental CBT	0.00	5,625.00
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4155 · Transfer from General Fund	0.00	3,169.70
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Total 4100 · Enterprise Fund Revenue	29.49	39,310.05
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Total Income	29.49	39,310.05
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St. Vrain & Left Hand Water Conservancy District
Enterprise Fund Expenses
 December
 2012

Expense	<u>TOTAL</u>
5000 · Enterprise Fund Expense	
5100 · Administration	
5105 · Salaries and Wages	6,990.66
5120 · Payroll Expense	326.73
5125 · Health Insurance	500.52
5130 · Employee Retirement	113.30
5135 · Training and Conferences	24.70
5145 · Travel	<u>41.69</u>
Total 5100 · Administration	7,997.60
5300 · Operational	
5345 · Rent	362.60
5350 · Telephone and Internet	79.06
5355 · Office Supplies	<u>557.59</u>
Total 5300 · Operational	999.25
5400 · Outside Services	
5405 · Consulting Engineering	1,356.25
5410 · Legal Fees	<u>1,649.38</u>
Total 5400 · Outside Services	<u>3,005.63</u>
Total 5000 · Enterprise Fund Expense	<u>12,002.48</u>
Total Expense	12,002.48

St. Vrain & Left Hand Water Conservancy District Enterprise Fund

Budget
Report

Expense	Jan - Dec 12	Budget	\$ Over Budget	% of Budget
5000 · Enterprise Fund Expense				
5100 · Administration				
5105 · Salaries and Wages	19,408.82	19,634.00	-225.18	98.85%
5110 · Temporary Employees	0.00	500.00	-500.00	0.00%
5115 · Workmans Comp	60.75	60.00	0.75	101.25%
5120 · Payroll Expense	1,843.15	1,906.00	-62.85	96.70%
5125 · Health Insurance	2,893.86	3,382.00	-488.14	85.57%
5130 · Employee Retirement	582.36	589.00	-6.64	98.87%
5135 · Training and Conferences	278.52	510.00	-231.48	54.61%
5140 · Liability Insurance	569.25	554.00	15.25	102.75%
5145 · Travel	402.93	825.00	-422.07	48.84%
5150 · Miscellaneous	0.00	150.00	-150.00	0.00%
Total 5100 · Administration	26,039.64	28,110.00	-2,070.36	92.64%
5300 · Operational				
5305 · Copeland Lake	0.00	300.00	-300.00	0.00%
5310 · Colorado Big T Assessments	2,610.00	2,600.00	10.00	100.39%
5315 · Lake No.4	0.00	2,100.00	-2,100.00	0.00%
5325 · Water Rental	1,500.00	0.00	1,500.00	100.00%
5335 · Federal EPA 319 Grant	0.00	1,828.00	-1,828.00	0.00%
5345 · Rent	2,175.60	2,176.00	-0.40	99.98%
5350 · Telephone and Internet	462.19	450.00	12.19	102.71%
5355 · Office Supplies	1,306.48	1,125.00	181.48	116.13%
5360 · Native Water Assessments	2,531.33	4,000.00	-1,468.67	63.28%
Total 5300 · Operational	10,585.60	14,579.00	-3,993.40	72.61%
5400 · Outside Services				
5405 · Consulting Engineering	12,800.01	16,257.00	-3,456.99	78.74%
5410 · Legal Fees	7,995.24	5,000.00	2,995.24	159.91%
5415 · Miscellaneous Consulting	0.00	10,500.00	-10,500.00	0.00%
Total 5400 · Outside Services	20,795.25	31,757.00	-10,961.75	65.48%
Total 5000 · Enterprise Fund Expense	57,420.49	74,446.00	-17,025.51	77.13%
Total Expense	57,420.49	74,446.00	-17,025.51	77.13%

St. Vrain & Left Hand Water Conservancy District **Enterprise Fund Bank Balance**

January 4, 2012

Dec 31, 11

ASSETS

Current Assets

Checking/Savings

1100 · Enterprise Fund

1110 · Enterprise Fund Money Mkt.-BOW 190,852.71

1115 · Enterprise Savings-Colotrust 57,918.80

Total 1100 · Enterprise Fund 248,771.51

Total Checking/Savings 248,771.51

St. Vrain & Left Hand Water Conservancy District **Enterprise Fund Revenue**

January 4, 2012

December 2011

Income

4100 · Enterprise Fund Revenue

4105 · Augmentation Membership Fees 158.30 17,674.45

4115 · Interest Income - Enterprise 10.34 174.35

4120 · District Water Rental CBT 0.00 35.18

4130 · Lake 4 Water Lease 0.00 4,065.00

4140 · Longmont Water Rental CBT 0.00 75,881.00

4145 · Miscellaneous Water Rental 0.00 1,570.00

4100 · Enterprise Fund Revenue - Other 0.00 467.54

Total 4100 · Enterprise Fund Revenue 168.64 99,867.52

Total Income 168.64 99,867.52

St. Vrain & Left Hand Water Conservancy District
Enterprise Fund Expenses
December
2011

01/04/2012

	<u>TOTAL</u>
Expense	
5000 · Enterprise Fund Expense	
5300 · Operational	
5315 · Lake No.4	-212.75
5325 · Water Rental	<u>750.00</u>
Total 5300 · Operational	537.25
5400 · Outside Services	
5405 · Consulting Engineering	990.00
5410 · Legal Fees	<u>1,062.00</u>
Total 5400 · Outside Services	<u>2,052.00</u>
Total 5000 · Enterprise Fund Expense	<u>2,589.25</u>
Total Expense	2,589.25

St. Vrain & Left Hand Water Conservancy District

Enterprise Fund

Budget
Port

January 4, 2012

Expense	Jan - Dec 11	Budget	\$ Over Budget	% of Budget
5000 · Enterprise Fund Expense				
5100 · Administration				
5150 · Miscellaneous	36.00	144.00	-108.00	25.00%
Total 5100 · Administration	36.00	144.00	-108.00	25.00%
5300 · Operational				
5305 · Copeland Lake	542.21	10,000.00	-9,457.79	5.42%
5310 · Colorado Big T Assessments	2,563.02	2,600.00	-36.98	98.58%
5315 · Lake No.4	730.20	1,000.00	-269.80	73.02%
5325 · Water Rental	69,756.00	78,000.00	-8,244.00	89.43%
5330 · Augmentation Plan	150.00	1,500.00	-1,350.00	10.00%
5335 · Federal EPA 319 Grant	0.00	8,460.00	-8,460.00	0.00%
5360 · Native Water Assessments	3,072.83	2,500.00	572.83	122.91%
Total 5300 · Operational	76,814.26	104,060.00	-27,245.74	73.82%
5400 · Outside Services				
5405 · Consulting Engineering	9,719.00	9,000.00	719.00	107.99%
5410 · Legal Fees	7,102.14	7,500.00	-397.86	94.70%
5415 · Miscellaneous Consulting	0.00	1,000.00	-1,000.00	0.00%
Total 5400 · Outside Services	16,821.14	17,500.00	-678.86	96.12%
Total 5000 · Enterprise Fund Expense	93,671.40	121,704.00	-28,032.60	76.97%
Total Expense	93,671.40	121,704.00	-28,032.60	76.97%





DRAFT

ENGINEERS ESTIMATE OF CONSTRUCTION COSTS

LAKE #4 EMBANKMENT REPAIR - Repair to Original Construction & Capacity

11/06/13

Item	Description	Quantity	Unit	Cost	Extension
1	Mobilization @ 5%	1	LS	\$ 60,000	\$ 60,000
2	Dewatering/Water Handling	1	LS	\$ 50,000	\$ 50,000
3	Site Preparation / Foundation Preparation	1	LS	\$ 200,000	\$ 200,000
4	Sediment Removal	87,000	CY	\$ 5	\$ 435,000
5	Embankment Fill (repair two breaches and slopes)	92,000	CY	\$ 5	\$ 460,000
6	Seeding, Mulching, Fencing	1	LS	\$ 50,000	\$ 50,000
7				\$ -	\$ -
8				\$ -	\$ -
9				\$ -	\$ -
10				\$ -	\$ -
11				\$ -	\$ -
12				\$ -	\$ -
13				\$ -	\$ -
14				\$ -	\$ -
15				\$ -	\$ -
16				\$ -	\$ -
17				\$ -	\$ -
18				\$ -	\$ -
19				\$ -	\$ -

Construction Items Subtotal \$1,255,000

Design Engineering @ 10% \$126,000

Construction Observation @ 10% \$126,000

Construction Items & Engineering Subtotal \$1,507,000

Contingency @ 25% \$377,000

TOTAL \$1,884,000

Notes: This estimate does not include federal, state or local permitting or ROW/access acquisitions

Form W-9 Substitute Form State of Colorado B-2007	Request for Taxpayer Identification Number and Certification	Give form to the requester. Do not send to the IRS.
--	---	---

Print or Type See Specific Instructions on page 3.	Name	St. Vrain and Left Hand Water Conservancy District		
	Business name, if different from above			
	Check appropriate box:			
	☐ Individual/ Sole Proprietor ☐ Corporation ☐ Partnership ☒ Other ☐ Exempt from backup withholding	Conservancy District		
	Address (number, street, and apt. or suite no.)	9595 Nelson St. Ste 203		
City, state, and ZIP code.	Longmont, CO 80501			
List Account number(s) here (optional)	Requester:			
	Phone Number: 303-772-4060			

Part I Taxpayer Identification Number (TIN)																																					
Enter your TIN in the appropriate box. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see How to get a TIN on page 3.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td colspan="9" style="text-align: center;">Social Security number</td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td colspan="9" style="text-align: center;">Employer identification number</td></tr> <tr><td>8</td><td>4</td><td>6</td><td>1</td><td>1</td><td>3</td><td>2</td><td>5</td><td>0</td></tr> </table>	Social Security number																		Employer identification number									8	4	6	1	1	3	2	5	0
Social Security number																																					
Employer identification number																																					
8	4	6	1	1	3	2	5	0																													
Note: If the account is in more than one name, see the chart on page 3 for guidelines on whose number to enter.																																					
Part II Certification																																					

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
- I am a U.S. person (including a U.S. resident alien).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. (See the instructions on page 3.)

Sign Here	Signature of U.S. person	Date 11/26/13
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Minority and Women-owned Businesses (M/WBEs) Self Certification (Please check all boxes that apply)	
In an effort to track levels of participation by women and minorities doing business with the State of Colorado, the following information is requested. Please indicate the appropriate category of ownership for your company. "Owned" in this context means a business that is at least 51 percent owned by an individual(s) who also control(s) and operate(s) it. "Control" in this context means exercising the power to make policy decisions. "Operate" means actively involved in the day-to-day management. If you business is jointly owned by both men and women or is a large publicly held corporation, please check the box labeled "Not Applicable."	
Gender Information:	
☐ Female-Owned	☐ Male-Owned ☐ Not Applicable
Owner Ethnicity Information	
☐ African American	☐ Asian/Pacific American ☐ White (non-Hispanic) ☐ Not Applicable
☐ Hispanic American	☐ Native American ☐ Other: _____
Small Business Information	
Small Business (a business that is organized for profit, is independently owned and operated, and has 25 or fewer full time equivalent employees.)	
☐ Yes	☐ No

EFT DIRECT DEPOSIT AUTHORIZATION FORM

State of Colorado OSC Form Rev 9/2008



SECTION I - DEPOSITOR STATE AGENCY INFORMATION

RETURN THIS FORM TO:

STATE AGENCY Colorado Water Conservation Board
MAILING ADDRESS 1580 Logan St., Ste 600
CITY, STATE, ZIP Denver, CO 80203
AGENCY CONTACT Anna Mauss PHONE 303-866-3441, Ext 3224

SECTION II - PAYEE (RECEIVOR) INFORMATION

VENDOR NAME St. Vrain and Left Hand Water Conservancy District
D/B/A _____
MAILING ADDRESS 9595 Nelson Rd., Ste 203
CITY, STATE, ZIP Longmont, CO 80501
PHONE 303-772-4060 EMAIL office@svlhwcd.org
CONTACT Sean Cronin

SECTION III - FINANCIAL INSTITUTION AND ACCOUNT INFORMATION:

ATTACH AN ORIGINAL VOIDED CHECK OR A BANK LETTER. BANK LETTER MUST INCLUDE ALL INFORMATION REQUESTED IN SECTION III.

DEPOSITORY INSTITUTION NAME: First Bank
BRANCH LOCATION (CITY & STATE) 1270 S. Hover St., Longmont, CO 80501
TRANSIT / ABA NUMBER 1 0 7 0 0 5 0 4 7
ACCOUNT # 718-121-2553 ☐ CHECKING ACCOUNT ☒ SAVINGS ACCOUNT
PAYEE SOCIAL SECURITY NUMBER ON BANK ACCOUNT _____
OR
PAYEE EMPLOYER IDENTIFICATION ON BANK ACCOUNT 8 4 - 6 1 1 3 2 5 0
FOR FURTHER CREDIT TO ACCOUNT _____

SECTION IV - AUTHORIZATION FOR DIRECT DEPOSIT SETUP, CHANGE, OR CANCELLATION:

☒ SET UP ☐ CHANGE ☐ CANCEL EFFECTIVE DATE 11 / 26 / 13

I (we) certify I have the authority to execute this authorization. I (we) hereby authorize the depositor named at top of this form to initiate, change or cancel EFT credit entries (deposits), and if necessary to reverse any incorrect EFT payments made in error to the bank account indicated above. In the event a "reversal" can not be implemented, I (we) understand the state will utilize any other lawful means to recover the deposited funds to which the payee was not entitled. I (we) and the depositor agree to be bound by National Automated Clearing House Association (NACHA) Rules.
This authorization is to remain in full force until the State Depositor Agency named above has received written notification from me of termination in such time as to afford a reasonable opportunity to act on it or until the record is inactive for two or more years and is purged from the state payable system.

PRINTED NAME Sean Cronin TITLE Executive Director
Signature [Signature] Date 11/26/13

OSC USE ONLY:

OSC DATA ENTRY DATE _____

BY: _____

**INTERGOVERNMENTAL AGREEMENT BETWEEN BOULDER COUNTY AND THE
ST. VRAIN AND LEFT HAND WATER CONSERVANCY DISTRICT RELATED TO
REPAIRS OF WESTERN MOBILE LAKE NO. 4**

This Intergovernmental Agreement (the "Agreement") is entered into as of the 12 day of May, 2014, by the County of Boulder, a body corporate and politic of the State of Colorado ("Boulder County" or "County"), and the St. Vrain and Left Hand Water Conservancy District (the "District") (each a "Party" or, collectively, the "Parties").

RECITALS

- A. The Colorado Constitution Article XIV, Section 18(2)(a), and C.R.S. §§ 29-1-201, et seq., provide that political subdivisions of the State may contract with one another to provide any function, service, or facility lawfully authorized to each of the cooperating units.
- B. The Parties each own a 50% undivided interest in Western Mobile Lake No. 4 ("Lake 4"), which has a conditional decree for the diversion and storage of water from St. Vrain Creek.
- C. On or around September 11, 2013 and continuing for several days thereafter, Boulder County experienced historic amounts of rainfall causing extreme flooding (the "Flood") that breached Lake 4 and rendered it unable to impound water. It is also unknown whether the outlet works for Lake 4 have been damaged by the flood and whether the outlet works need to be repaired or replaced. The damage to Lake 4 will require reconstruction that is far beyond ordinary maintenance.
- D. The Parties are committed to working cooperatively to repair Lake 4 and its outlet works so that Lake 4 can once again safely impound and release water to the full extent of its decree (the "Project").
- E. The purpose of this Agreement is to set forth the understanding of the Parties regarding their respective responsibilities for cooperating regarding financial contributions and repairs to Lake 4.

AGREEMENT

In consideration of the mutual covenants and promises set forth herein, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows.

- 1. The County and the District share the common interest in, and responsibility for, repairing Lake 4 to safely impound and release water pursuant to the decree for Lake 4 and shall cooperate in good faith with each other to accomplish this goal.
- 2. In order to repair and restore Lake 4 as efficiently as possible, the Parties have agreed the County shall provide mutual aid to the District by performing or contracting for all work contemplated by this Agreement. The County shall assume primary responsibility for

releasing requests for proposals ("RFPs") for analysis of alternatives, design of the Project, and construction of the Project. The District shall be afforded the opportunity to review and approve the RFPs before they are released, review the RFP responses when they are submitted, and participate in the interviews and selection of potential contractors.

3. The County shall also consult with, and seek the approval of, the Office of the State Engineer regarding the design of the Project.
4. The Parties believe they are eligible for reimbursement from the Federal Emergency Management Agency ("FEMA") and/or the State of Colorado ("State") for a portion of their respective repair and restoration costs.
5. Once a contractor is selected for either design or construction of the Project, the County shall enter into a contract with the contractor. Such contract shall be approved by the District prior to its execution. Once executed, the County shall notify the District of any proposed modification or change to the contract that would have the effect of increasing the cost thereunder by more than 5%. The County shall only accept any such proposed modification or change with approval from the District. The County shall be responsible for initial payment to the contractor for all work related to the Project when invoiced by the contractor. The County shall invoice the District for half of the cost of each invoice it receives from a contractor. As long as the invoices are within the agreed upon cost limits, the District will pay the County within 30 days of receipt of each invoice. If there is any discrepancy between the amount invoiced by the contractor and the amount anticipated by the contract, the Parties agree to use their collective good faith to work collaboratively toward resolving any such cost differential.
6. The County shall submit Project costs to the State and FEMA on project worksheets and shall employ financial accounting and reporting procedures designed to maximize the eligibility for reimbursement by the State and FEMA. The District shall be provided the opportunity to review and approve project worksheets before they are submitted to the County's disaster consultant and shall receive copies of all final project worksheets submitted to the State and/or FEMA.
7. If and when the County receives any reimbursement from the State and/or FEMA related to the Project, the County shall pay the District half of any reimbursement within 30 days of the County's receipt of the reimbursement.
8. The Parties anticipate that the Project shall be completed within 2 years after this IGA's execution and shall exercise best efforts to meet that timeline.
9. The Parties will procure and maintain in full force and effect such insurance or self-insurance that will insure its obligations and liabilities under this Agreement, including workers' compensation, automobile liability and general liability.
10. Each Party assumes responsibility for the actions and/or omissions of its agents and its employees in the performance or failure to perform under this Agreement, and further, each Party, to the extent authorized by law, agrees to hold harmless the other for such actions or omissions of its own employees and/or agents. It is agreed that such liability

for actions and omissions of agents and employees is not intended to increase the amounts set forth in the Colorado Governmental Immunity Act, now existing, or as may be amended. By agreeing to this provision, neither Party waives or intends to waive the limitations on liability which are provided to the Party under the Colorado Governmental Immunity Act §§ 24-10-101 *et seq.*, C.R.S.

11. The Parties shall perform all services under this Agreement as independent entities and not as an agent or employee of the other Party. It is mutually agreed and understood that nothing contained in this Agreement is intended, or shall be construed as, in any way establishing the relationship of co-partners or joint ventures between the Parties hereto, or as construing either Party, including its agents and employees, as an agent of the other Party. Each Party shall remain an independent and separate entity. Neither Party shall be supervised by any employee or official of the other Party. Neither Party shall represent that it is an employee or agent of the other Party in any capacity.
12. All financial obligations of the Parties under this Agreement are contingent upon appropriation, budgeting, and availability of specific funds to discharge such obligations. Nothing in this Agreement shall be deemed a pledge of the Party's credit, or a payment guarantee by one Party to the other Party. If appropriated funds are not available, both Parties shall be relieved of their obligations hereunder.
13. No waiver of any breach or default under this Agreement shall be a waiver of any other or subsequent breach or default.
14. Invalidation of any specific provisions of this Agreement shall not affect the validity of any other provision of this Agreement.
15. This Agreement shall be governed and construed in accordance with the laws of the State of Colorado. Venue for any action arising under this Agreement shall be in Boulder County, Colorado.
16. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, and all of which shall constitute one and the same Agreement. Facsimile and other electronic signatures shall be acceptable to and binding upon all Parties.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement which shall be in full force and effect the day and year first written above.

BOULDER COUNTY

Cindy Domenico

Cindy Domenico, Chair
Board of Boulder County Commissioners

5/29/14

Attest:

Mike Ryder

Clerk to the Board



ST. VRAIN AND LEFT HAND WATER CONSERVANCY DISTRICT

Dennis R. Gaudin
President

Attest:

William H. Aselbust
Secretary

<u>P</u>	
Applicant Name:	Application Title:
BOULDER (COUNTY)	BOUCO51 - Facility Replacement / Repair (Lake 4)
Period of Performance Start:	Period of Performance End:
	03-14-2015

Subgrant Application - Entire Application

Application Title: BOUCO51 - Facility Replacement / Repair (Lake 4)

Application Number:

Application Type: Subgrant Application (PW)

Preparer Information

Prefix
First Name MICHAEL
Middle Initial
Last Name MERANDA
Title CEF Estimator
Agency/Organization Name DHS/FEMA
Address 1 9200 East Mineral Ave
Address 2
City Denver
State CO
Zip 80112
Email deanna.butterbaugh@state.co.us

Is the application preparer the Point of Contact? No

Point of Contact Information

Prefix
First Name Michelle
Middle Initial
Last Name Krezek
Title Commissioner's Deputy
Agency/Organization Boulder County
Address 1 1325 Pearl St.
Address 2
City Boulder
State CO
ZIP 80306
Phone 303-441-3561

Fax

Email

mkrezek@bouldercounty.org

Alternate Point of Contact Information

Prefix

First Name

Michael

Middle Initial

N

Last Name

Chard

Title

Director of Emergency Management

Agency/Organization

Boulder County

Address 1

1325 Pearl St.

Address 2

City

Boulder

State

CO

ZIP

80306

Phone

303-441-3653

Fax

Email

mchard@bouldercounty.org

Project Description

Disaster Number:

4145

Pre-Application Number:

PA-08-CO-4145-RPA-0008

Applicant ID:

013-99013-00

Applicant Name:

BOULDER (COUNTY)

Subdivision:

Project Number:

BOUCO51

Standard Project Number/Title:

704 - Recreational Facility

Please Indicate the Project Type:

Neither Alternate nor Improved

Application Title:

BOUCO51 - Facility Replacement / Repair (Lake 4)

Category:

G.RECREATIONAL OR OTHER

Percentage Work Completed?

0.0 %

As of Date:

06-09-2014

Comments

Attachments

Damage Facilities (Part 1 of 2)

Facility Number	Facility Name	Address	County	City	State	ZIP	Site Previously Damaged?	Action
1	Lake 4		Boulder		CO		No	

Comments

Attachments						
User	Date	Document Type	Description	Hard Copy File Reference	File Name	Action
MICHAEL MERANDA	06-11-2014	Map	Pre Flood Aerial - Lake 4		Lake 4 Aerial 10-7-12.jpg (93.81 kb)	View
MICHAEL MERANDA	06-11-2014	Map	Post Flood Aerial - Lake 4		Lake 4 Aerial 10-6-13.jpg (112.57 kb)	View
MICHAEL MERANDA	06-11-2014	Map	Pre Flood Aerial - Lakes 2,3,4		Lakes 2, 3, 4 On 10-7-12.jpg (116.85 kb)	View
MICHAEL MERANDA	06-11-2014	Map	Post Flood Aerial - Lakes 2,3,4		Lakes 2,3,4 On 10-6-13.jpg (120.39 kb)	View
MICHAEL MERANDA	06-17-2014	Map	Pre-Post Flood Damage Area and Survey Elevation Maps		Pre-Post Flood Damage Areas and Elevation Survey Maps.pdf(2.81 Mb)	View
MICHAEL MERANDA	06-18-2014	Photos	Typical Sediment Infiltration		Lake 4 Sediment Infiltration & Shoreline Damage.JPG (491.13 kb)	View
MICHAEL MERANDA	06-18-2014	Photos	Typical Shoreline Washout and Breach Damage		Lake 4 Breach & Shoreline Damage.JPG(842.35 kb)	View
MICHAEL MERANDA	06-20-2014	Photos	Diversion Structure Damage		Diversion Structure.pdf (341.96 kb)	View
MICHAEL MERANDA	06-20-2014	Photos	Diversion Structure Damage 2		Diversion Structure 2.pdf (373.33 kb)	View
MICHAEL MERANDA	06-20-2014	Photos	Instrumentation Damage 1		Instrumentation Photo2a.jpg (3.11 Mb)	View
MICHAEL MERANDA	06-20-2014	Photos	Instrumentation Damage 2		Instrumentation Photo2b.jpg (3.28 Mb)	View
MICHAEL MERANDA	06-20-2014	Photos	Instrumentation Damage 3		Instrumentation Photo3.jpg (2.51 Mb)	View
MICHAEL MERANDA	06-23-2014	Photos	Diversion Structure Top Decking Damage		photo 4.jpg(156.88 kb)	View
MICHAEL MERANDA	06-23-2014	Map	Underground Drainage Pipe Location		Instrumentation Location Map 2.jpg(128.81 kb)	View

Facility Name:	Lake 4
Address 1:	
Address 2:	
County:	Boulder
City:	
State:	CO
ZIP:	
Was this site previously damaged?	No
Percentage Work Completed?	0.00 %

Location:	South of Ute Hwy (Colorado Hwy 66), approximately 2 miles west of the intersection with U.S. Hwy 36 (approximately in the center of Section 27, Township 3 North, Range 70 West), in unincorporated Boulder County.
Damage Description and Dimensions: $335 \times 48 \times 1 = 16,080 / 27 = 596 \text{ CY}$ →	Heavy rains between 9/11 - 9/20/2013 resulted in St. Vrain Creek and tributary overflows, velocity overflow and overland flooding that deep-scoured Lake adjacent grounds, breach of Lake east and west berms, washout of shorelines and slurry/rip rap shoreline protection, large volumes of sediment infiltration into the lake bed, impact damage to and sediment infiltration of a diversion structure, submersion of water measuring and monitoring electrical instrumentation panels and debris infiltration into an underground drainage pipe... This PW addresses (12) damage areas in and adjacent to Lake 4 (see pre-post flood survey elevation maps)... Flood submergion, impact, and infiltration damage are as follows: Area 1 (berm & shoreline):... 305FT x 17.59FT x 24.5FT(4,869CY)clay washed out... 260FT x 50FT x 18FT(8,667CY)unclassified fill washed out... 260FT x 60FT x 1FT (578CY)topsoil washed out... Area 2 (berm & shoreline):... 366FT x 49FT x 2FT (1,328CY)unclassified fill washed out.. 366FT x 49FT x 1FT (664CY) topsoil washed out... Area 3 (berm & shoreline):... 236FT x 70FT x 18FT(11,013CY)unclassified fill washed out.. 236FT x 70FT x 1FT(612CY) topsoil washed out... Area 4 (embankment & shoreline):... 335FT x 43FT x 20FT (5,335CY)unclassified fill washed out.. 335FT x 48FT x 1FT (612CY) topsoil washed out... (1)CY of vegetative debris deposited... 22FT x 14FT x .75FT (9CY) rip rap bedding washed out... 22FT x 14FT x 1.5FT (17CY)grouted rip rap washed out... Area 6 (berm & shoreline):... 382FT x 51FT x 11FT (3,969CY)unclassified fill washed out.. 382FT x 52FT x 1FT (736CY) topsoil washed out... Area 7 (berm & shoreline):... 94FT x 19FT x 27FT (1,791CY) clay washed out... 94FT x 148FT x 26FT(10,048CY)unclassified fill washed out.. 94FT x 148FT x 1FT (515CY) topsoil washed out... 108FT x 15FT x .75FT (45CY)rip rap bedding washed out... 108FT x 15FT x 2FT (120CY) rip rap washed out... Area 8 (berm & shoreline):... 291FT x 51FT x 20FT (5,497CY)unclassified fill washed out.. 291FT x 51FT x 1FT (550CY) topsoil washed out... Area 9 (shoreline):... 300FT x 8FT x .335FT (30CY) topsoil washed out... Area 10:...

	665FT x 1,006FT x 10FT(247,774CY)of sediments filled bed... Area 11:... 365FT x 450FT x 12FT (73,000CY) of sediments filled bed... Area 12:... 226FT x 747FT x 12FT (75,032CY) of sediments filled bed... Diversion Structure (40.19841, -105.22109):... (4) 3in x 12in x 3ft wood deck boards debris impacted and cracked atop walkway bridge deck... Sediment and debris infiltrated diversion structure... (3) Instrumentation panels submerged each with:... 40.198, -105.221, 40.195, -105.217, 40.196,-105.208... (1) Monitor-1 datalogger... (1) NEMA enclosure... (1) Solar regulator... (1) 7 AH battery... (1) Sutron Stage discharge recorder... (1) pressure transducer... (1) 2,500LF x 2FT diameter underground concrete water discharge pipe infiltrated with sediment debris...
Scope of Work:	WORK TO BE COMPLETED..... Area 1 (berm & shoreline):... Replace 305FT x 17.59FT x 24.5FT(4,869CY) clay ... Replace 260FT x 50FT x 18FT(8,667CY) unclassified fill... Replace 260FT x 60FT x 1FT (578CY) topsoil... Area 2 (berm & shoreline):... Replace 366FT x 49FT x 2FT (1,328CY) unclassified fill... Replace 366FT x 49FT x 1FT (664CY) topsoil... Area 3 (berm & shoreline):... Replace 236FT x 70FT x 18FT(11,013CY) unclassified fill... Replace 236FT x 70FT x 1FT(612CY) topsoil... Area 4 (embankment & shoreline):... Replace 335FT x 43FT x 20FT (5,335CY) unclassified fill... Replace 335FT x 48FT x 1FT (612CY) topsoil... Remove, dispose of (1)CY of vegetative debris... Replace 22FT x 14FT x .75FT (9CY) rip rap bedding... Replace 22FT x 14FT x 1.5FT (17CY)grouted rip rap... Area 6 (berm & shoreline):... Replace 382FT x 51FT x 11FT (3,969CY) unclassified fill... Replace 382FT x 52FT x 1FT (736CY) topsoil... Area 7 (berm & shoreline):... Replace 94FT x 19FT x 27FT (1,791CY) clay... Replace 94FT x 148FT x 26FT(10,048CY) unclassified fill.. Replace 94FT x 148FT x 1FT (515CY) topsoil... Replace 108FT x 15FT x .75FT (45CY)rip rap bedding... Replace 108FT x 15FT x 2FT (120CY) rip rap... Area 8 (berm & shoreline):... Replace 291FT x 51FT x 20FT (5,497CY) unclassified fill...

Replace 291FT x 51FT x 1FT (550CY) topsoil...

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Replace 300FT x 8FT x .335FT (30CY) topsoil...

Area 10:...

Remove, dispose of 665FT x 1,006FT x 10FT(247,774CY)sediments...

Area 11:...

Remove, dispose of 365FT x 450FT x 12FT (73,000CY) of sediments...

Area 12:...

Remove, dispose of 226FT x 747FT x 12FT (75,032CY) of sediments...

Repair(4) 3FT x 3in x 12in walkway bridge decking...

Remove sediment debris from diversion structure...

Replace (3) Instrumentation panels/components each with...

(1) Monitor-1 datalogger...

(1) NEMA enclosure...

(1) Solar regulator...

(1) 7 AH battery...

(1) Sutron Stage discharge recorder...

(1) pressure transducer...

Damage to 2,500LF x 2FT diameter, concrete discharge is unknown pending inspection and verification...

PROJECT NOTES:

Damage dimensions provided by the Applicant were verified subsequent to 5/15/14 field inspections and from pre and post flood survey elevation maps...

Source documents used to validate Applicant estimated costs include unit pricing from "CDOT 2013 Cost Data" weighted averages, "Boulder County Parks and Open Space Cost Estimating Guide" where per 5/13/14 email, costs "were derived from actual costs for projects bid/costructed in 2011", and "Cost Data: Boulder County Flood Recovery Bid Summary Average Unit Costs 4/10/14". Validation confirms Applicant estimate is within prescribed guidelines and as such is utilized for the PW cost basis (see Validation estimate with backup unit price sources)...

CEF factors replace Applicant estimated soft costs where Lump Sum units are absent source, cost basis, and cannot be validated...

Mobilization cost percentage utilized in CEF Part A are 5%, and reasonable, when compared against Boulder County Bid Summary Unit Price averages showing 25%...

Damage to the 2,500LF outlet discharge pipe is unknown until large volumes of sediment infiltrated at the inlet and outlet of the structure is removed, and the interior TV inspected. At such time, should incident related, hidden damage be ascertained, detailed documentation must be provided to support an amended PW scope of work that may be requested via the State...

Equal ownership, as well as equal sharing of the repair costs for Lake 4 Dam & Reservoir is with St. Vrain and Left Hand Water Conservancy District (District)...

(3) instrument panels submersion damaged are used to measure and

monitor water levels and flows at the inlet and outlet structures to ensure that the County and the St. Vrain and Left Hand Water Conservancy District are administering the water consistent with their water rights...

STANDARD COMMENTS.....

PROCUREMENT: Should future audit find that applicable procurement guidelines were not followed, approved project funding could be jeopardized. The applicant is required to adhere to Federal, State, and local Government Procurement rules and regulations and maintain adequate records to support the basis for all purchasing of goods and materials and contracting services for projects approved under the Public Assistance program, as stated in 44CFR 13.36. The applicant has advised they have/will follow their normal procurement procedures...

PERMITS: The Applicant is responsible for obtaining all applicable local, state and federal permits prior to any construction or debris disposal activity referenced on this project and has been advised that the lack of obtaining and maintaining these documents may jeopardize funding...

INSURANCE: The applicant is aware that all projects are subject to an insurance review as stated in 44 C.F.R. Sections 206.252 and 206.253. If applicable an insurance determination will be made either as anticipated proceeds or actual proceeds in accordance with the applicant's insurance policy that may affect the total amount of the project. The insurance policy is on file at the FEMA JFO...

RECORD RETENTION: As described in 44 CFR Section 13.42, applicant must maintain all work-related records for a period of three (3) years from applicant closure (final payment). All records relative to this project worksheet are subject to examination and audit by the State, FEMA, and the Comptroller General of the United States and must reflect work related to disaster specific costs...

SCOPE OF WORK CHANGES: The Applicant must notify the State if there are any changes in the scope of work prior to starting the repairs. Failure to notify the State Division of Emergency Management may jeopardize receipt of federal funds...

ENVIRONMENT REVIEW: Per FEMA Region 8 guidance all Project Worksheets regardless of Emergency or Permanent Work will be reviewed by EHP...

HAZARD MITIGATION: The Applicant requests 406 mitigation be addressed at a later date. At the time of PW completion the applicant did not have design or conceptual measures for mitigation and they have been advised that 406 mitigation cannot be applied if it requires undoing any completed work and it will be evaluated for eligibility as per FEMA Recovery Policy 9526.1. Furthermore, the submission of the mitigation proposal will need to be coordinated through the Colorado Division of Emergency Management...

DAC: The Applicant is requesting Direct Administrative Costs (DAC) to be provided provided at the time of project closeout. Documentation supporting actual DAC costs shall include names, dates of work, hours per day of work, rates per hour including benefits, and payroll records to support the costs for this specific project...

Likely copy and
paste error?

MAINTENANCE RECORDS: The Applicant shall provide maintenance records prior to project closeout for the purposes of confirming that the facility was improved and maintained, to include signage placement, construction of stone low water crossings, construction of stone benches,

installation of trash receptacles and backfilling of trail surfaces washed out by high water events...		
Hazard Mitigation Proposal		
Is effective mitigation feasible on this site?	Yes	
If you answered Yes to the above question, the next question is required		
Will mitigation be performed on this site?	Yes	
If you answered Yes to the above question, the next question is required		
Do you wish to attach a Hazard Mitigation Proposal?	No	
If you answered Yes to the above question, the next two questions are required		
Please provide the Scope of Work for the estimate: (maximum 4000 characters)	Concrete spillways are under consideration, design and at such time as complete, the Applicant will request this HMP to prevent similar damage. The spillways are being designed to prevent Lake breach from overflow conditions...	
Would you like to add the Hazard Mitigation Proposal as a cost line item to the project cost?	No	
GIS Coordinates		
Project Location	Latitude	Longitude
South of Hwy 66, 2 miles west of intersection with Hwy 36	40.19767	-105.21858

Special Considerations

1. Does the damaged facility or item of work have insurance coverage and/or is it an insurable risk (e.g., buildings, equipment, vehicles, etc)? No
2. Is the damaged facility located within a floodplain or coastal high hazard area and/or does it have an impact on a floodplain or wetland? Yes

If you would like to make any comments, please enter them below.

(maximum 4000 characters)

FIRM 08013C0253J - Lake 4 is in Zone A

3. Is the damaged facility or item of work located within or adjacent to a Coastal Barrier Resource System Unit or an Otherwise Protected Area? No
4. Will the proposed facility repairs/reconstruction change the pre-disaster conditions (e.g., footprint, material, location, capacity, use of function)? No
5. Does the applicant have a hazard mitigation proposal or would the applicant like technical assistance for a hazard mitigation proposal? Yes

If you would like to make any comments, please enter them below.

(maximum 4000 characters)

The Applicant is in the design stage process for spillways that will prevent future, similar, damage and requests that 406 mitigation be provided at a later date, when design and details are complete.

6. Is the damaged facility on the National Register of Historic Places or the state historic listing? Is it older than 50 years? Are there more, similar buildings near the site? No
7. Are there any pristine or undisturbed areas on, or near, the project site? Are there large tracts of forestland? No
8. Are there any hazardous materials at or adjacent to the damaged facility and/or item of work? No
9. Are there any other environmental or controversial issues associated with the damaged facility and/or item of work? Yes

If you would like to make any comments, please enter them below.

(maximum 4000 characters)

There may be Preble's mouse habitat in the area..

Attachments						
User	Date	Document Type	Description	Hard Copy File Reference	File Name	Action
MICHAEL MERANDA	06-17-2014	Floodplain	FIRM		FIRM 08013C0253J.pdf (629.29 kb)	View

For Category C, D, E, F, and G Projects only

Is effective mitigation feasible on this project? Yes

If you answered **Yes** to the above question, the next question is required

Will mitigation be performed on any sites in this project? Yes

If you answered **Yes** to the above question, the next question is required

Do you wish to attach a Hazard Mitigation Proposal? No

If you answered **Yes** to the above question, the next two questions are required

Please provide the Scope of Work for the estimate:

Concrete spillways are proposed to alleviate damage from a future, similar event. The applicant is currently designing and estimating such cost and shall provide the data as soon as complete.

Would you like to add the Hazard Mitigation Proposal as a cost line item to the project cost? No

Comments
Attachments

Cost Estimate

Is this Project Worksheet for	Cost Estimate Format
-------------------------------	----------------------

(Preferred) Repair									
Sequence	Code	Material and/or Description	Unit Quantity	Unit of Measure	Unit Price	Subgrant Budget Class	Type	Cost Estimate	Action
*** Version 0 ***									
CEF									
1	9000	CEF Cost Estimate (See Attached Spreadsheet)	1	LS	\$ 9,033,490.00	CONSTRUCTION	CEF	\$ 9,033,490.00	
Total Cost :								\$ 9,033,490.00	

Insurance Adjustments (Deductibles, Proceeds and Settlements) - 5900/5901									
Sequence	Code	Material and/or Description	Unit Quantity	Unit of Measure	Unit Price	Subgrant Budget Class	Type	Cost Estimate	Action
Total Cost :								\$ 0.00	

Total Cost Estimate:

(Preferred Estimate Type + Insurance Adjustments) **\$ 9,033,490.00**

Comments						
Attachments						
User	Date	Document Type	Description	Hard Copy File Reference	File Name	Action
MICHAEL MERANDA	06-17-2014	Calculation Sheet	Applicant Quantities Spreadsheet		Applicant Quantities Spreadsheet.pdf(349.52 kb)	View
MICHAEL MERANDA	06-18-2014	Additional Information	Applicant Estimate With Validation and Backup Documentation		Applicant Estimate With Validation and Backup Cost Documentation.pdf(2.65 Mb)	View
MICHAEL MERANDA	06-19-2014	Additional Information	CEF Lake 4		CEF BOUCO51 - Lake 4.pdf (514.90 kb)	View

Existing Insurance Information

Insurance Type	Policy No.	Bldg/Property Amount	Content Amount	Insurance Amount	Deductible Amount	Years Required
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Comments						
Attachments						

Comments and Attachments

Name of Section	Comment	Attachment
Damage Facilities		Lake 4 Aerial 10-7-12.jpg Lake 4 Aerial 10-6-13.jpg Lakes 2, 3, 4 On 10-7-12.jpg Lakes 2,3,4 On 10-6-13.jpg Pre-Post Flood Damage Areas and Elevation Survey Maps.pdf Lake 4 Sediment Infiltration & Shoreline Damage.JPG Lake 4 Breach & Shoreline Damage.JPG Diversion Structure.pdf Diversion Structure 2.pdf Instrumentation Photo2a.jpg Instrumentation Photo2b.jpg Instrumentation Photo3.jpg photo 4.jpg Instrumentation Location Map 2.jpg
Special Considerations		FIRM 08013C0253J.pdf
Cost Estimate		Applicant Quantities Spreadsheet.pdf Applicant Estimate With Validation and Backup Cost Documentation.pdf CEF BOUCO51 - Lake 4.pdf
Form 90-91		IGA 2702 001.pdf RFP # 6088-14.pdf Backgrounder.pdf Flooding Extents and Flood Flow Path.pdf Procurement Policy.pdf

Bundle Reference # (Amendment #)	Date Awarded

Subgrant Application - FEMA Form 90-91

FEDERAL EMERGENCY MANAGEMENT AGENCY PROJECT WORKSHEET									
DISASTER				PROJECT NO.	PA ID NO.	DATE	CATEGORY		
FEMA	4145	-	DR	-CO	BOUCO51	013-99013-00		G	
APPLICANT: BOULDER (COUNTY)						WORK COMPLETE AS OF: 06-09-2014 : 0 %			
Site 1 of 1									
DAMAGED FACILITY:					COUNTY: Boulder				
Lake 4									
LOCATION:						LATITUDE:	LONGITUDE:		
Current Version:						40.19767	-105.21858		
South of Ute Hwy (Colorado Hwy 66), approximately 2 miles west of the intersection with U.S. Hwy 36 (approximately in the center of Section 27, Township 3 North, Range 70 West), in unincorporated Boulder County.									
DAMAGE DESCRIPTION AND DIMENSIONS:									
Current Version:									
Heavy rains between 9/11 - 9/20/2013 resulted in St. Vrain Creek and tributary overflows, velocity overflow and overland flooding that deep-scoured Lake adjacent grounds, breach of Lake east and west berms, washout of shorelines and slurry/rip rap shoreline protection, large volumes of sediment infiltration into the lake bed, impact damage to and sediment infiltration of a diversion structure, submersion of water measuring and monitoring electrical instrumentation panels and debris infiltration into an underground drainage pipe...									
This PW addresses (12) damage areas in and adjacent to Lake 4 (see pre-post flood survey elevation maps)...									
Flood submergison, impact, and infiltration damage are as follows:									
Area 1 (berm & shoreline):...									
305FT x 17.59FT x 24.5FT(4,869CY)clay washed out...									
260FT x 50FT x 18FT(8,667CY)unclassified fill washed out...									
260FT x 60FT x 1FT (578CY)topsoil washed out...									
Area 2 (berm & shoreline):...									
366FT x 49FT x 2FT (1,328CY)unclassified fill washed out...									
366FT x 49FT x 1FT (664CY) topsoil washed out...									
Area 3 (berm & shoreline):...									
236FT x 70FT x 18FT(11,013CY)unclassified fill washed out...									
236FT x 70FT x 1FT(612CY) topsoil washed out...									
Area 4 (embankment & shoreline):...									
335FT x 43FT x 20FT (5,335CY)unclassified fill washed out...									
335FT x 48FT x 1FT (612CY) topsoil washed out...									
(1)CY of vegetative debris deposited...									
22FT x 14FT x .75FT (9CY) rip rap bedding washed out...									
22FT x 14FT x 1.5FT (17CY)grouted rip rap washed out...									
Area 6 (berm & shoreline):...									
382FT x 51FT x 11FT (3,969CY)unclassified fill washed out...									
382FT x 52FT x 1FT (736CY) topsoil washed out...									
Area 7 (berm & shoreline):...									
94FT x 19FT x 27FT (1,791CY) clay washed out...									
94FT x 148FT x 26FT(10,048CY)unclassified fill washed out...									
94FT x 148FT x 1FT (515CY) topsoil washed out...									
108FT x 15FT x .75FT (45CY)rip rap bedding washed out...									
108FT x 15FT x 2FT (120CY) rip rap washed out...									
Area 8 (berm & shoreline):...									
291FT x 51FT x 20FT (5,497CY)unclassified fill washed out...									
291FT x 51FT x 1FT (550CY) topsoil washed out...									

Area 9 (shoreline):...

300FT x 8FT x .335FT (30CY) topsoil washed out...

Area 10:...

665FT x 1,006FT x 10FT(247,774CY)of sediments filled bed...

Area 11:...

365FT x 450FT x 12FT (73,000CY) of sediments filled bed...

Area 12:...

226FT x 747FT x 12FT (75,032CY) of sediments filled bed...

Diversion Structure (40.19841, -105.22109):...

(4) 3in x 12in x 3ft wood deck boards debris impacted and cracked atop walkway bridge deck...

Sediment and debris infiltrated diversion structure...

(3) Instrumentation panels submerged each with:...

40.198, -105.221, 40.195, -105.217, 40.196, -105.208...

(1) Monitor-1 datalogger...

(1) NEMA enclosure...

(1) Solar regulator...

(1) 7 AH battery...

(1) Sutron Stage discharge recorder...

(1) pressure transducer...

(1) 2,500LF x 2FT diameter underground concrete water discharge pipe infiltrated with sediment debris...

SCOPE OF WORK:

Current Version:

WORK TO BE COMPLETED.....

Area 1 (berm & shoreline):...

Replace 305FT x 17.59FT x 24.5FT(4,869CY) clay ...

Replace 260FT x 50FT x 18FT(8,667CY) unclassified fill...

Replace 260FT x 60FT x 1FT (578CY) topsoil...

Area 2 (berm & shoreline):...

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Area 3 (berm & shoreline):...

Replace 236FT x 70FT x 18FT(11,013CY) unclassified fill...

Replace 236FT x 70FT x 1FT(612CY) topsoil...

Area 4 (embankment & shoreline):...

Replace 335FT x 43FT x 20FT (5,335CY) unclassified fill...

Replace 335FT x 48FT x 1FT (612CY) topsoil...

Remove, dispose of (1)CY of vegetative debris...

Replace 22FT x 14FT x .75FT (9CY) rip rap bedding...

Replace 22FT x 14FT x 1.5FT (17CY)grouted rip rap...

Area 6 (berm & shoreline):...

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Replace 382FT x 52FT x 1FT (736CY) topsoil...

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Replace 291FT x 51FT x 1FT (550CY) topsoil...

Area 9 (shoreline):...

Replace 300FT x 8FT x .335FT (30CY) topsoil...

Area 10:...

Remove, dispose of 665FT x 1,006FT x 10FT(247,774CY)sediments...

Area 11:...

Remove, dispose of 365FT x 450FT x 12FT (73,000CY) of sediments...

Area 12:...

Remove, dispose of 226FT x 747FT x 12FT (75,032CY) of sediments...

Repair(4) 3FT x 3in x 12in walkway bridge decking...

Remove sediment debris from diversion structure...

Replace (3) Instrumentation panels/components each with...

(1) Monitor-1 datalogger...

(1) NEMA enclosure...

(1) Solar regulator...

(1) 7 AH battery...

(1) Sutron Stage discharge recorder...

(1) pressure transducer...

Damage to 2,500LF x 2FT diameter, concrete discharge is unknown pending inspection and verification...

PROJECT NOTES:

Damage dimensions provided by the Applicant were verified subsequent to 5/15/14 field inspections and from pre and post flood survey elevation maps...

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CEF factors replace Applicant estimated soft costs where Lump Sum units are absent source, cost basis, and cannot be validated...

Mobilization cost percentage utilized in CEF Part A are 5%, and reasonable, when compared against Boulder County Bid Summary Unit Price averages showing 25%...

Damage to the 2,500LF outlet discharge pipe is unknown until large volumes of sediment infiltrated at the inlet and outlet of the structure is removed, and the interior TV inspected. At such time, should incident related, hidden damage be ascertained, detailed documentation must be provided to support an amended PW scope of work that may be requested via the State...

Equal ownership, as well as equal sharing of the repair costs for Lake 4 Dam & Reservoir is with St. Vrain and Left Hand Water Conservancy District (District)...

(3) instrument panels submersion damaged are used to measure and monitor water levels and flows at the inlet and outlet structures to ensure that the County and the St. Vrain and Left Hand Water Conservancy District are administering the water consistent with their water rights...

STANDARD COMMENTS.....

PROCUREMENT: Should future audit find that applicable procurement guidelines were not followed, approved project funding could be jeopardized. The applicant is required to adhere to Federal, State, and local Government Procurement rules and regulations and maintain adequate records to support the basis for all purchasing of goods and materials and contracting services for projects approved under the Public Assistance program, as stated in 44CFR 13.36. The applicant has advised they have/will follow their normal procurement procedures...

PERMITS: The Applicant is responsible for obtaining all applicable local, state and federal permits prior to any construction or debris disposal activity referenced on this project and has been advised that the lack of obtaining and maintaining these documents may jeopardize funding...

INSURANCE: The applicant is aware that all projects are subject to an insurance review as stated in 44 C.F.R. Sections 206.252 and 206.253. If applicable an insurance determination will be made either as anticipated proceeds or actual proceeds in accordance with the applicant's insurance policy that may affect the total amount of the project. The insurance policy is on file at the FEMA JFO...

RECORD RETENTION: As described in 44 CFR Section 13.42, applicant must maintain all work-related records for a period of three (3) years from applicant closure (final payment). All records relative to this project worksheet are subject to examination and audit by the State, FEMA, and the Comptroller General of the United States and must reflect work related to disaster specific costs...

SCOPE OF WORK CHANGES: The Applicant must notify the State if there are any changes in the scope of work prior to starting the repairs. Failure to notify the State Division of Emergency Management may jeopardize receipt of federal funds...

ENVIRONMENT REVIEW: Per FEMA Region 8 guidance all Project Worksheets regardless of Emergency or Permanent Work will be reviewed by EHP...

HAZARD MITIGATION: The Applicant requests 406 mitigation be addressed at a later date. At the time of PW completion the applicant did not have design or conceptual measures for mitigation and they have been advised that 406 mitigation cannot be applied if it requires undoing any completed work and it will be evaluated for eligibility as per FEMA Recovery Policy 9526.1. Furthermore, the submission of the mitigation proposal will need to be coordinated through the Colorado Division of Emergency Management...

DAC: The Applicant is requesting Direct Administrative Costs (DAC) to be provided provided at the time of project closeout. Documentation supporting actual DAC costs shall include names, dates of work, hours per day of work, rates per hour including benefits, and payroll records to support the costs for this specific project...

MAINTENANCE RECORDS: The Applicant shall provide maintenance records prior to project closeout for the purposes of confirming that the facility was improved and maintained, to include signage placement, construction of stone low water crossings, construction of stone benches, installation of trash receptacles and backfilling of trail surfaces washed out by high water events...

conditions at the site? ☐ Yes ☒ No		Special Considerations included? ☒ Yes ☐ No			
Hazard Mitigation proposal included? ☐ Yes ☒ No		Is there insurance coverage on this facility? ☐ Yes ☒ No			
PROJECT COST					
ITEM	CODE	NARRATIVE	QUANTITY/UNIT	UNIT PRICE	COST
		*** Version 0 ***			
		CEF			
1	9000	CEF Cost Estimate (See Attached Spreadsheet)	1/LS	9,033,490.00	\$ 9,033,490.00
TOTAL COST					\$ 9,033,490.00
PREPARED BY MICHAEL MERANDA			TITLE CEF Estimator		SIGNATURE
APPLICANT REP. Michelle Krezek			TITLE Commissioner's Deputy		SIGNATURE

BOULDER (COUNTY) :					
Conditions Information					
Review Name	Condition Type	Condition Name	Description	Monitored	Status
No Conditions					

Internal Comments				
No.	Queue	User	Date/Time	Reviewer Comments
No Comments				

CEF Fact Sheet

6/19/2014

Boulder County - Western Mobile Lake 4 Dam and Reservoir

Date of Estimate:	June 17, 2014
FEMA Region:	8
Preparer(s):	Michael Meranda
Applicant Name:	Boulder County
Project Title:	Facility Replacement/Repair
Damaged Facility:	Western Mobile Lake 4 Dam and Reservoir
Declaration Number:	4145
Project Number:	BOUCO51
PA ID No.:	013-99013-00
Date of Inspection:	May 15, 2014
Event Date(s)	9/11 to 9/30 2013
Work Category:	G
Type of Work: (Enter New, Repair, etc.)	Repair
Preparer's Notes:	
This CEF is written for Western Mobile Lake 4 (12 damage areas). 0% of the work is complete. A field inspection was conducted on 5/15/14, claimed damage dimensions sample verified, and Applicant provided pre-post survey elevation maps + "Quantities" spreadsheet list dimensions of damage and sediment infiltration by area. Lake 4 Dam and Reservoir is jointly and equally owned with St. Vrain and Left Hand Water Conservancy District (District) for the purpose of water storage and augmentation purposes. See RFP #6088-14 for ownership and facility details + IGA for St. Vrain & Left Hand Water Conservancy District. Water is normally supplied to the reservoir via the South Branch Ditch via a diversion from St. Vrain Creek several miles upstream. Damages to Lake 4 resulted from flood generated velocity overflows that breached St. Vrain Creek, continued overland, deep-scoured grounds, washed out east and west Lake 4 berms and shorelines, washed out shoreline slurry walls, infiltrated the primary outlet, washed away topsoil areas, and deposited large volumes of sediment into the lake bed. Per CEF Instructional Guide V2.1 page 4-8 paragraph 4.10 and 4-10 b), Bid # 5913-13, Bid # 6050-14 as well as Cost Data: Boulder County Flood Recovery 4/10/14 Avg. Bid Summary Unit Costs, CDOT Cost Data 2013, and Boulder County Cost Estimating & Equipment Rental Rate Guide April 2011 were used to validate the Applicant provided, base cost estimate. Validation with referenced sources supports the Applicant's base cost estimate that is within prescribed guidelines and utilized in Part A of this CEF. Applicant estimated soft costs absent basis, and listed Lump Sum line items that cannot be validated, are not included, and CEF factors are utilized instead to address relevant soft costs. The Applicant and District will each be responsible for 1/2 of the eligible repair costs.	

CEF Notes

6/19/2014

Boulder County - Western Mobile Lake 4 Dam and Reservoir

Damaged Facility:		Western Mobile Lake 4 Dam and Reservoir
Applicant Name:		Boulder County
Project Number:		BOUCO51
Date of Estimate:		June 17, 2014
Preparer(s):		Michael Meranda
Part A Notes:	A.1 -	Project base cost utilized and validated is by Boulder County Parks & Open Spaces (BCPOS) and developed from historic as well as recently bid unit rates for similar work in the area.
	A.2 -	All Work To Be Completed is considered permanent in nature
Part B Notes:	B.1 -	A 0% General Requirements factor is applicable for Safety & Security as no guard service, traffic control or barricading, safety equipment, fire protection, signage, pedestrian or vehicle control around the construction site apply for the work type and location; .00025% is applied for sanitary services for the work location; .0025% is applied for Quality Control services where shoreline breach repair compaction testing services apply; 0% factor is applied for Submittals that are not required for the job type.
	B.2 -	0% factor is applied for General Conditions as unit prices used for the project estimate include supervision.
Part C Notes:	C.1 -	0% factor is applicable for Design Phase / Scope Definition Contingencies as the reservoir was originally a borrow pit absent design, the scope of work for in kind repairs is clear and non-complex.
	C.2 -	0% factor is applied for Facility or Project Constructibility in that the repairs are in-kind, non-complex, no physical constraints exist at the location, work does not require intense detail and sequencing nor closer supervision throughout the process, and sub-surface conditions to include de-watering are costs already considered in Part A unit prices.
	C.3 -	0% factor is applied for Access as mobilization costs are included in Part A, the location is 7 miles from an urban location, the majority of work does not involve materials delivery, temporary equipment access road is already provided for in the base cost estimate of Part A, there are no difficult site loading conditions, or restrictions for off site parking, materials delivery times, or obstructions created by utilities or exposed systems; 0% factor is applicable for Storage as adequate area exists; 0% factor is applicable for Staging as there are no complications due to occupation of the facility, lack of space, or access to the facility.
	C.4 -	Economies of Scale factor is applied per CEF Instructional Guide Section 6.4, Table C.4, page 6-4 considering a decrease in cost due to project size, repetitive tasks involving earthwork, sediment removal & hauling/disposal, as well as mobilization costs for putting labor and equipment (left on site) to work that are addressed on Part A and that are proportionally lower due to the extended number of days required to affect repairs.
Part D Notes:	D.1 -	0% factor is applied for General Contractors home and overhead cost as unit prices used for the estimate include O&P
	D.2 -	No General Contractors insurance, payment and performance bond are considered for factoring as unit prices used for the estimate include O&P
	D.3 -	0% factor is applied for General Contractors profit as the unit prices used for the estimate include O&P

CEF Notes

6/19/2014

Boulder County - Western Mobile Lake 4 Dam and Reservoir

Part E Notes:	E -	0% factor is applicable for Cost Escalation as the majority of repairs involve earthwork, excavation, and hauling/disposal work where inflation-caused increases in equipment and/or labor costs are already considered in estimated unit prices
Part F Notes:	F.1 -	No plan review fees are applicable for non-complex sediment removal and earthwork repairs
	F.2 -	No specific construction permit fees are identified by BCPOS. Actual costs shall be considered where required and presented.
Part G Notes:	G.1 -	3% factor is applied for Applicant's Reserve For Change Orders considering outlet structure damage or repair is unknown until sediments are removed and change orders as well as amended scopes of work may be required.
Part H Notes:	H.1 -	0% factor is applied for Applicants Project Management - Design Phase where the majority of repair work is in kind sediment removal, in kind earthwork, and where minimal design requirements are addressed with costs included in the H.2 factor.
	H.2 -	A 3% A&E Design Contract Cost is applied for minimal preliminary engineering analysis, design, final design, construction and worksite inspections, review of bids, review of contractor's requests for payments, and for acting as the Applicant's representative.
	H.3 -	A 3% factor is applied per CEF Instructional Guide Table H.3 where there will be requirements for advertising and awarding of the construction contract, decisions on construction problems, and possible omissions and/or unforeseen problems such as differing site conditions.
Miscellaneous Notes & Comments:		

CEF Part A

6/19/2014

Boulder County - Western Mobile Lake 4 Dam and Reservoir

Item No.	Item Description Title / Component Description	Div. # or Cost Code	Qty	Units	Unit Price	City Adj Factor	Total Cost
Completed Work Items							
Completed Permanent Items							
							\$ -
Completed - Permanent Total							\$ -
Completed Non-Permanent Items							
Completed - Non-Permanent Total							\$ -
Uncompleted Work Items							
Uncompleted Permanent Items							
1	Applicant Estimate (Base Cost Project Subtotal)	Boulder County	1.00	LS	\$ 8,013,047.69	1.0000	\$ 8,013,047.69
2	Mobilization	Boulder County	1.00	LS	\$ 400,000.00	1.0000	\$ 400,000.00
Uncompleted - Permanent Total							\$ 8,413,047.69
Uncompleted Non-Permanent Items							
					\$ -		\$ -
2					\$ -		\$ -
					\$ -		\$ -
Uncompleted - Non-Permanent Total							\$ -
TOTAL PART A BASE CONSTRUCTION COST							\$ 8,413,047.69

CEF Summary of Completed Work

6/19/2014

Boulder County - Western Mobile Lake 4 Dam and Reservoir

		Repair	\$	-	\$	-	\$	-	\$	-	Total
A "Base Costs" for Construction Work-In Trades											
A.1	Permanent Work (CEF Part A)	\$	-								\$ -
A.2	Non-Permanent Job Specific Work (CEF Part A)					\$	-				\$ -
Part A Total		\$	-	\$	-	\$	-	\$	-	\$	-
B General Requirements and General Conditions											
B.1	General Requirements	Guide Low to High									
	Safety & Security	4% 6.0%									
	Temporary Services & Utilities	0% 1.0%									
	Quality Control	0% 1.0%									
	Submittals	0% 5.0%									
			\$	-	\$	-	\$	-	\$	-	\$ -
B.2	General Conditions (4.25%)										
			\$	-	\$	-	\$	-	\$	-	\$ -
Part B Total			\$	-	\$	-	\$	-	\$	-	\$ -
PART A through B SUBTOTAL			\$	-	\$	-	\$	-	\$	-	\$ -
C Construction Cost Contingencies											
C.1	Design-Phase Scope Contingencies	Guide Low to High									
	Preliminary Engineering Analysis	7.0% 20.0%									
	Working Drawings	2.0% 10.0%									
			\$	-	\$	-	\$	-	\$	-	\$ -
C.2	Facility or Project Constructability										
	Facility or Project Type and Complexity	See IG for Values									
			\$	-	\$	-	\$	-	\$	-	\$ -
C.3	Access, Storage & Staging	Guide Low to High									
	Access Contingencies	0.0% 4.0%									
	Storage Contingencies	0.0% 4.0%									
	Staging Contingencies	0.0% 4.0%									
			\$	-	\$	-	\$	-	\$	-	\$ -
C.4	Economies of Scale										
		0.0% 0.0% 0.0% 0.0% 0.0%									
			\$	-	\$	-	\$	-	\$	-	\$ -
Part C Total			\$	-	\$	-	\$	-	\$	-	\$ -
PART A through C SUBTOTAL			\$	-	\$	-	\$	-	\$	-	\$ -
D General Contractor's Overhead and Profit											
D.1	GC's Home Office Overhead	7.7%									
			\$	-	\$	-	\$	-	\$	-	\$ -
D.2	GC's Insurance, Payment & Performance Bonds	3.3%									
			\$	-	\$	-	\$	-	\$	-	\$ -
D.3	General Contractor's Profit										
	New Construction	0.0% 0.0% 0.0% 0.0% 0.0%									
	Repair/Retrofit										
			\$	-	\$	-	\$	-	\$	-	\$ -
Part D Total			\$	-	\$	-	\$	-	\$	-	\$ -
PART A through D SUBTOTAL			\$	-	\$	-	\$	-	\$	-	\$ -

CEF Summary of Completed Work

6/19/2014

Boulder County - Western Mobile Lake 4 Dam and Reservoir

		Repair	\$	-	\$	-	\$	-	\$	-	Total
E Cost Escalation Factors											
Cost Escalation Factor	Months										
	Monthly Factor										
	Part E Total	\$	-	\$	-	\$	-	\$	-	\$	-
PART A through E SUBTOTAL		\$	-	\$	-	\$	-	\$	-	\$	-
F Plan Review and Permit Construction Cost											
F.1	Plan Review Fees										
	(List Individual Requirements Separately)										
		\$	-	\$	-	\$	-	\$	-	\$	-
F.2	Construction Permit Fees										
	(List Individual Requirements Separately)										
		\$	-	\$	-	\$	-	\$	-	\$	-
	Part F Total	\$	-	\$	-	\$	-	\$	-	\$	-
PART A through F SUBTOTAL		\$	-	\$	-	\$	-	\$	-	\$	-
G Applicant's Reserve for Change Orders											
Applicant's Reserve for Change Orders											
		7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	
	Part G Total	\$	-	\$	-	\$	-	\$	-	\$	-
PART A through G SUBTOTAL		\$	-	\$	-	\$	-	\$	-	\$	-
H Applicant's Project Management And Design Costs											
H.1	Applicant's Project Management - Design Phase	1.0%									
			\$	-	\$	-	\$	-	\$	-	\$
H.2	A/E Design Contract Applicability										
	Above Average Complexity (Curve A)		5.6%		5.6%		5.6%		5.6%		5.6%
	Average Complexity (Curve B)		4.5%		4.5%		4.5%		4.5%		5.6%
	Basic Construction Inspection Services		3.0%		3.0%		3.0%		3.0%		3.0%
	A/E Design Contract Cost										
	Above Average Complexity (Curve A)		\$	-	\$	-	\$	-	\$	-	\$
	Average Complexity (Curve B)		\$	-	\$	-	\$	-	\$	-	\$
	Basic Construction Inspection Services		\$	-	\$	-	\$	-	\$	-	\$
			\$	-	\$	-	\$	-	\$	-	\$
H.3	Project Management - Construction Phase										
			6.0%		6.0%		6.0%		6.0%		6.0%
			\$	-	\$	-	\$	-	\$	-	\$
	Part H Total		\$	-	\$	-	\$	-	\$	-	\$
PART A through H SUBTOTAL			\$	-	\$	-	\$	-	\$	-	\$
TOTAL OF COMPLETED WORK											\$

CEF Summary of Uncompleted Work

6/19/2014

Boulder County - Western Mobile Lake 4 Dam and Reservoir

		Repair	\$	-	\$	-	\$	-	\$	Total
A "Base Costs" for Construction Work-In Trades										
A.1	Permanent Work (CEF Part A)	\$	8,413,048							\$ 8,413,048
A.2	Non-Permanent Job Specific Work (CEF Part A)									\$ -
Part A Total		\$	8,413,048	\$	-	\$	-	\$	-	\$ 8,413,048
B General Requirements and General Conditions										
B.1	General Requirements	Guide Low to High	Enter % in Appropriate Column							
	Safety & Security	4% 6.0%								
	Temporary Services & Utilities	0% 1.0%	0.0%							
	Quality Control	0% 1.0%	0.3%							
	Submittals	0% 5.0%								
		\$	23,136	\$	-	\$	-	\$	-	\$ 23,136
B.2	General Conditions (4.25%)									
		\$	-	\$	-	\$	-	\$	-	\$ -
Part B Total		\$	23,136	\$	-	\$	-	\$	-	\$ 23,136
PART A through B SUBTOTAL		\$	8,436,184	\$	-	\$	-	\$	-	\$ 8,436,184
C Construction Cost Contingencies										
C.1	Design-Phase Scope Contingencies	Guide Low to High	Enter % in Appropriate Column							
	Preliminary Engineering Analysis	7.0% 20.0%								
	Working Drawings	2.0% 10.0%								
		\$	-	\$	-	\$	-	\$	-	\$ -
C.2	Facility or Project Constructability		Enter % in Appropriate Column							
	Facility or Project Type and Complexity	See IG for Values								
		\$	-	\$	-	\$	-	\$	-	\$ -
C.3	Access, Storage & Staging	Guide Low to High	Enter % in Appropriate Column							
	Access Contingencies	0.0% 4.0%								
	Storage Contingencies	0.0% 4.0%								
	Staging Contingencies	0.0% 4.0%								
		\$	-	\$	-	\$	-	\$	-	\$ -
C.4	Economies of Scale									
			-1.9%	0.0%	0.0%	0.0%	0.0%			
		\$	(162,242)	\$	-	\$	-	\$	-	\$ (162,242)
Part C Total		\$	(162,242)	\$	-	\$	-	\$	-	\$ (162,242)
PART A through C SUBTOTAL		\$	8,273,942	\$	-	\$	-	\$	-	\$ 8,273,942
D General Contractor's Overhead and Profit										
D.1	GC's Home Office Overhead	7.7%								
		\$	-	\$	-	\$	-	\$	-	\$ -
D.2	GC's Insurance, Payment & Performance Bonds	3.3%								
		\$	-	\$	-	\$	-	\$	-	\$ -
D.3	General Contractor's Profit									
			0.0%	0.0%	0.0%	0.0%	0.0%			
	New Construction									
	Repair/Retrofit									
		\$	-	\$	-	\$	-	\$	-	\$ -
Part D Total		\$	-	\$	-	\$	-	\$	-	\$ -
PART A through D SUBTOTAL		\$	8,273,942	\$	-	\$	-	\$	-	\$ 8,273,942

CEF Summary of Uncompleted Work

6/19/2014

Boulder County - Western Mobile Lake 4 Dam and Reservoir

		Repair	\$	-	\$	-	\$	-	\$	-	Total	
E Cost Escalation Factors												
Cost Escalation Factor												
	Months											
	Monthly Factor											
Part E Total		\$	-	\$	-	\$	-	\$	-	\$	-	
PART A through E SUBTOTAL		\$	8,273,942	\$	-	\$	-	\$	-	\$	8,273,942	
F Plan Review and Permit Construction Cost												
F.1	Plan Review Fees											
	(List Individual Requirements Separately)											
		\$	-	\$	-	\$	-	\$	-		\$	-
F.2	Construction Permit Fees											
	(List Individual Requirements Separately)											
		\$	-	\$	-	\$	-	\$	-		\$	-
Part F Total		\$	-	\$	-	\$	-	\$	-	\$	-	
PART A through F SUBTOTAL		\$	8,273,942	\$	-	\$	-	\$	-	\$	8,273,942	
G Applicant's Reserve for Change Orders												
Applicant's Reserve for Change Orders		☒	3.0%	☐	7.0%	☐	7.0%	☐	7.0%	☐	7.0%	
PART G Total		\$	248,218	\$	-	\$	-	\$	-	\$	248,218	
PART A through G SUBTOTAL		\$	8,522,160	\$	-	\$	-	\$	-	\$	8,522,160	
H Applicant's Project Management And Design Costs												
H.1	Applicant's Project Management - Design Phase	1.0%	☐	☐	☐	☐	☐	☐	☐	☐		
		\$	-	\$	-	\$	-	\$	-	\$	-	
H.2	A/E Design Contract Applicability											
	Above Average Complexity (Curve A)	☐	8.6%	☐	5.6%	☐	5.6%	☐	5.6%		☐	5.6%
	Average Complexity (Curve B)	☐	8.4%	☐	4.5%	☐	4.5%	☐	4.5%		☐	5.6%
	Basic Construction Inspection Services	☒	3.0%	☐	3.0%	☐	3.0%	☐	3.0%		☐	3.0%
	A/E Design Contract Cost											
	Above Average Complexity (Curve A)	\$	-	\$	-	\$	-	\$	-		\$	-
	Average Complexity (Curve B)	\$	-	\$	-	\$	-	\$	-		\$	-
	Basic Construction Inspection Services	\$	255,665	\$	-	\$	-	\$	-		\$	-
		\$	255,665	\$	-	\$	-	\$	-	\$	255,665	
H.3	Project Management - Construction Phase	☒	3.0%	☐	6.0%	☐	6.0%	☐	6.0%	☐	6.0%	
		\$	255,665	\$	-	\$	-	\$	-	\$	255,665	
Part H Total		\$	511,330	\$	-	\$	-	\$	-	\$	511,330	
PART A through H SUBTOTAL		\$	9,033,490	\$	-	\$	-	\$	-	\$	9,033,490	
TOTAL OF UNCOMPLETED WORK											\$ 9,033,490	

CEF Total Project Summary

6/19/2014

Summary

Boulder County - Western Mobile Lake 4 Dam and Reservoir

		Completed	Uncompleted	Total
Complete Project Total for Completed and Uncompleted Work		\$ -	\$ 9,033,490	\$ 9,033,490
PART A	"Base Costs" for Construction Work In Trades	\$ -	\$ 8,413,048	\$ 8,413,048
	A.1 Permanent Work	\$ -	\$ 8,413,048	\$ 8,413,048
	A.2 Non-Permanent Job Specific Work (CEF Part A)	\$ -	\$ -	\$ -
PART B	General Requirements and General Conditions	\$ -	\$ 23,136	\$ 23,136
	B.1 General Requirements	\$ -	\$ 23,136	\$ 23,136
	B.2 General Conditions	\$ -	\$ -	\$ -
PART C	Construction Cost Contingencies (Design and Construction)	\$ -	\$ (162,242)	\$ (162,242)
	C.1 Standard Design-Phase Scope Contingencies	\$ -	\$ -	\$ -
	C.2 Facility or Project Constructability	\$ -	\$ -	\$ -
	C.3 Access, Storage, and Staging Contingencies	\$ -	\$ -	\$ -
	C.4 Economies of Scale in New Construction	\$ -	\$ (162,242)	\$ (162,242)
PART D	General Contractor's Overhead and Profit	\$ -	\$ -	\$ -
	D.1 General Contractor's Home Office Overhead Costs	\$ -	\$ -	\$ -
	D.2 General Contractor's Insurance, Payment, and Performance Bonds	\$ -	\$ -	\$ -
	D.3 Contractor's Profit	\$ -	\$ -	\$ -
PART E	Cost Escalation Allowance	\$ -	\$ -	\$ -
PART F	Plan Review and Construction Permit Costs	\$ -	\$ -	\$ -
	F.1 Plan Review Fees	\$ -	\$ -	\$ -
	F.2 Construction Permit Fees	\$ -	\$ -	\$ -
PART G	Applicant's Reserve for Construction	\$ -	\$ 248,218	\$ 248,218
PART H	Applicant's Project Management and Design Costs	\$ -	\$ 511,330	\$ 511,330
	H.1 Applicant's Project Management - Design Phase	\$ -	\$ -	\$ -
	H.2 Architecture & Engineering Design Contract Costs	\$ -	\$ 255,665	\$ 255,665
	H.3 Project Management - Construction Phase	\$ -	\$ 255,665	\$ 255,665

QUANTITIES

Area 1	Length (ft)	Width (ft)	Area (sq-ft)	Depth (ft)	Volume (CY)
Clay Core	305	*see drawing	*see drawing	24.5	4869 ✓
Unclassified Fill	260	50	13000	18	8667 ✓
Topsoil	260	60	15600	1	578 ✓
Area 2					
Unclassified Fill	366	49	17934	2	1328 ✓
Topsoil	366	49	17934	1	664 ✓
Area 3					
Unclassified Fill	236	70	16520	18	11013 ✓
Topsoil	236	70	16520	1	612 ✓
Area 4/5			10'		
Unclassified Fill	335	43	*see drawing	20	5335 ✓
Topsoil	335	48	16080	1	596 ✓
Debris Removal	-	-	-	-	1 ✓
Riprap Bedding	22	14	308	0.75	9 ✓
Grouted Riprap	22	14	308	1.5	17 ✓
Area 6					
Unclassified Fill	382	51	281	11	3969
Topsoil	382	52	19864	1	736
Area 7		19.055	1,791.17		
Core	94	*see drawing	*see drawing	27	1791
Unclassified Fill	94	148	13912	26	10048
Topsoil	94	148	13912	1	515
Riprap Bedding	108	15	1620	0.75	45
Riprap	108	15	1620	2	120
Area 8					
Unclassified Fill	291	51	510	20	5497
Topsoil	291	51	14841	1	550
Area 9					
Topsoil	300'	8'	field notes	.335	30
Area 10					
Dredging	665	1006	668990	10	247774
Area 11					
Dredging	365	450	164250	12	73000
Area 12					
Dredging	226	747	168822	12	75032

APPLICANT PROVIDED QUANTITIES
 SAMPLED VERIFIED DURING
 5/15/14 FIELD INSPECTION

VALIDATION ESTIMATE

Line Item	Unit	Qty	Cost Per Unit	Total	Cost Per Unit	Total		
Construction								
Mobilization/Demobilization	LS	1	\$ 400,000.00	\$ 400,000				
Excavation and Disposal of Flood Sediment	CY	395,806	\$ 15.92	\$ 6,301,233	*	19	7,520,315.41	BC Cost Guide Pg. 6
Woody Debris Removal and Disposal	CY	50	\$ 50.00	\$ 2,500			-	
Clay Core and Installation	CY	6,660	\$ 30.00	\$ 199,798	*	30.5	203,127.74	Cost Data BC Bids
Riprap Bedding and Installation	CY	54	\$ 48.00	\$ 2,571	*	50	2,677.78	Cost Data BC Bids
Water Control	LS	1	\$ 10,000.00	\$ 10,000			-	
Shoreline Repair and Restoration	LF	1,503	\$ 15.00	\$ 22,545	*	25.87	38,882.61	CDOT 203-00062 Cost
Riprap and Installation	CY	137	\$ 70.00	\$ 9,598	*	76.77	10,526.02	Bid # 5913-13
Import and Place Unclassified Fill	CY	45,856	\$ 27.00	\$ 1,238,123	*	27	1,238,123	Bid # 6050-14
Access Development and Restoration	LS	1	\$ 10,000.00	\$ 10,000				
Erosion Control (seeding, soil amendment, matting)	SF	12,024	\$ 1.50	\$ 18,036	*	0.5	6,012	BC Cost Guide Pg. 7
Import and Place Topsoil	CY	4,280	\$ 42.44	\$ 181,645	*	42.44	181,644.77	Cost Data BC Bids
Diversion Structure Repair (reconstruct upper walkway/vehicular bridge deck, 32'x3')	LS	1	\$ 5,000.00	\$ 5,000				
Instrumentation (Monitor-1 datalogger, NEMA enclosure, solar regulator, and 7 AH battery, Sutron Stage Discharge Recorder, pressure transducer)	LS	1	\$ 10,000.00	\$ 10,000				
Clean out Outlet (outlet pipe is buried in sediment, jet out to remove deposit)	LS	1	\$ 2,000.00	\$ 2,000				
Unlisted Items (10%)	LS	1	\$ 93,000.00	\$ 93,000				
Contingency (25%)	LS	1	\$ 2,300,000.00	\$ 2,300,000				
Construction Total				\$ 10,806,048				
				\$ 7,986,048				
Engineering								
Design	LS	1	\$ 480,000.00	\$ 480,000.00				
Materials Testing	LS	1	\$ 80,000.00	\$ 80,000.00				
Construction Related Engineering	LS	1	\$ 240,000.00	\$ 240,000.00				
Permitting	LS	1	\$ 80,000.00	\$ 80,000.00				
Engineering Total				\$ 880,000.00				
Project Total				\$ 11,686,047.69				
					Validation	9,201,309.33		
					Base Cost E4 E17	8,013,047.69		

COST DATA: BOULDER COUNTY FLOOD RECOVERY

UPDATED KKO, 4/10/14			BID SUMMARY		
ITEM	DESCRIPTION	UNIT	UNIT COST		
			ENG. EST.	AVERAGE	AWARDED
201	CLEARING AND GRUBBING	LS	\$3,666.67	\$12,138.89	\$7,333.33
201	CLEARING AND GRUBBING	AC	\$4,000.00	\$48,000.00	\$48,000.00
202	REMOVAL OF TREE	EA	\$800.00	\$640.47	\$500.00
202	REMOVAL OF PIPE	LF	\$203.75	\$258.08	\$110.49
202	REMOVAL OF ASPHALT	CY	\$9.50	\$33.56	\$32.63
202	REMOVAL OF ASPHALT	SY	\$6.33	\$14.84	\$12.83
202	REMOVAL OF PAVEMENT MARKING	SF	\$1.00	\$5.00	\$5.00
202	REMOVAL OF PAVEMENT MARKING PAINT (TEMPORARY)	LS	\$500.00	\$1,200.00	\$1,200.00
202	REMOVAL OF WALL	LF	\$100.00	\$68.00	\$68.00
202	REMOVAL OF GUARDRAIL TYPE 7	LF	\$10.00	\$18.00	\$18.00
202	REMOVAL OF RIPRAP	SY	\$15.00	\$37.87	\$37.87
202	REMOVAL OF CONCRETE	SY			
202	REMOVAL OF CONCRETE	LS	\$10,000.00	\$9,228.69	\$9,228.69
202	CLEAN CULVERT	EACH	\$1,700.00	\$3,057.50	\$3,115.00
203	UNCLASSIFIED EXCAVATION	CY	\$47.50	\$76.49	\$66.49
203	UNCLASSIFIED EXCAVATION (CIP)	CY	\$90.00	\$77.67	\$67.00
203	EMBANKMENT MATERIAL (CIP)	CY	\$27.30	\$39.48	\$32.57
203	EMBANKMENT MATERIAL (CIP) (IMPORT)	CY	\$30.50	\$47.15	\$66.00
203	ROCK EMBANKMENT MATERIAL	CY			
203	ROCKERY FILL (CIP)	CY	\$35.00	\$88.25	\$70.00
203	PROOF ROLLING	HOURL	\$190.00	\$145.94	\$134.81
203	GRADING	HOURL	\$175.00	\$229.45	\$283.89
203	BACKHOE	HOURL	\$175.00	\$154.81	\$179.62
203	DOZING	HOURL	\$220.00	\$336.14	\$432.27
203	HYDRAULIC EXCAVATOR	HOURL	\$240.00	\$231.08	\$302.15
203	TRUCK (DUMP)	HOURL	\$110.00	\$111.07	\$102.14
203	SHEEPS FOOT COMPACTOR	HOURL	\$150.00	\$185.96	\$196.91
203	SKID STEER (TRACK)	HOURL	\$150.00	\$108.66	\$117.32
203	FRONT END LOADER (RUBBER TIRE)	HOURL	\$150.00	\$245.11	\$350.22
203	POTHOLING	HR	\$170.00	\$290.00	\$290.00
203	SWEEPING	HR	\$160.00	\$200.00	\$200.00
206	STRUCTURE EXCAVATION	CY	\$17.50	\$20.67	\$22.50
206	STRUCTURE BACKFILL (FLOWFILL)	CY	\$100.00	\$243.27	\$216.33
206	STRUCTURE BACKFILL (CLASS 1)	CY	\$30.00	\$69.00	\$79.00
206	BEDDING MATERIAL	CY	\$30.00	\$73.67	\$48.00
207	RECOVERED RIVER BED MATERIAL	CY	\$75.00	\$33.96	\$33.96
207	TOPSOIL (4-INCH)	CY	\$12.00	\$63.00	\$63.00
207	TOPSOIL (COMPLETE IN PLACE)	CY	\$50.00	\$42.44	\$42.44
207	TOPSOIL (IMPORT)	CY	\$100.00	\$86.33	\$59.00
208	EROSION LOG (12 INCH)	LF	\$17.00	\$5.85	\$5.85
208	SILT FENCE	LF	\$3.00	\$7.16	\$7.16
208	CONCRETE WASHOUT STRUCTURE	EA	\$800.00	\$1,300.00	\$1,300.00
208	STORM DRAIN INLET PROTECTION	EA	\$140.00	\$370.00	\$370.00
208	STABILIZED CONSTRUCTION ENTRANCE	EA	\$1,100.00	\$1,734.85	\$1,734.85
208	REMOVAL AND DISPOSAL OF SEDIMENT (LABOR)	HR	\$45.00	\$100.00	\$100.00
208	REMOVAL AND DISPOSAL OF SEDIMENT (EQUIPMENT)	HR	\$80.00	\$135.93	\$135.93
208	EROSION CONTROL SUPERVISOR	LS	\$2,000.00	\$4,600.00	\$4,600.00
208	EROSION CONTROL SUPERVISOR	HR	\$90.00	\$75.78	\$66.02
208	TEMPORARY DIVERSION	LF	\$50.00	\$223.11	\$223.11
208	TEMPORARY FILTER BERM	LF	\$35.00	\$197.02	\$197.02
208	EROSION CONTROL	LS	\$20,700.00	\$21,187.26	\$16,957.50
210	RESET ARCHITECTURAL PLASTER (CIP)	LS	\$15,000.00	\$10,774.67	\$11,824.00
210	RESET FENCE	LF	\$25.00	\$11.42	\$17.00
210	RELAY PIPE (48 INCH)	LF	\$125.00	\$143.00	\$200.00
210	RESET RIPRAP (12-INCH)	LS	\$10,000.00	\$3,912.00	\$3,912.00
210	RESET BOULDER (36-INCH)	EA	\$600.00	\$140.00	\$140.00
210	MODIFY BRIDGE (CIP)	LS	\$15,000.00	\$18,828.67	\$27,686.00
212	SEEDING (NATIVE)	ACRE	\$2,825.00	\$11,070.14	\$11,695.14
212	SOIL CONDITIONING	ACRE	\$1,800.00	\$4,000.00	\$4,000.00
212	SEEDING ESTABLISHMENT	AC	\$2,500.00	\$7,142.86	\$7,142.86
212	SEEDING ESTABLISHMENT (SPECIAL)	LS	\$1,500.00	\$3,200.00	\$3,200.00
212	SEEDING ESTABLISHMENT (SPECIAL, NATIVE)	SY			
212	SEEDING ESTABLISHMENT (SPECIAL, MEADOW)	SY			
212	TREE RETENTION & PROTECTION	EA	\$1,500.00	\$1,200.00	\$1,200.00
213	MULCHING	ACRE	\$6,500.00	\$5,389.78	\$6,212.00
213	MULCH TACKIFIER	LB	\$50.00	\$42.67	\$6.00

VALIDATION ESTIMATE COST BASIS
DOCUMENTATION 9 PAGES

216	SOIL RETENTION BLANKET	SY	\$8.00	\$21.67	\$8.00
216	SOIL RETENTION BLANKET (BIODEGRADABLE STRAW/COCONUT)	SY	\$5.00	\$7.24	\$7.24
304	AGGREGATE BASE COURSE (CLASS 6)	TON	\$32.00	\$44.78	\$36.12
304	AGGREGATE BASE COURSE (CLASS 6)	CY	\$48.50	\$73.06	\$61.25
304	AGGREGATE BASE COURSE (RAP)	CY	\$27.50	\$28.62	\$25.00
403	HOT MIX ASPHALT (PATCHING) (ASPHALT)	TON	\$115.00	\$175.00	\$175.00
420	GEOTEXTILE (SEPERATOR) (CLASS I, NON-WOVEN)	SY			
503	DRILLED CAISSON (24 INCH)	LF	\$300.00	\$374.67	\$471.00
504	WETCAST CONCRETE BLOCK GRAVITY WALL (SPECIAL)	SF	\$50.00	\$58.00	\$58.00
507	GROUTED RIP RAP	CY	\$200.00	\$328.00	\$189.00
506	RIPRAP (6 INCH)	CY	\$50.00	\$189.31	\$110.00
506	RIPRAP (9 INCH)	CY	\$77.50	\$109.78	\$315.00
506	RIPRAP (12 INCH)	CY	\$65.00	\$78.00	\$69.00
506	RIPRAP (24 INCH)	CY	\$93.00	\$111.92	\$92.04
506	RIPRAP (SPECIAL)	CY	\$75.00	\$98.37	\$82.00
506	RIPRAP (BOULDER SLOPE PROTECTION)	CY	\$92.50	\$116.76	\$116.50
506	RIPRAP ENERGY DISSIPATOR (TEMPORARY)	EA	\$1,000.00	\$4,500.00	\$4,500.00
506	STREAM DIVERSION STRUCTURE (TEMPORARY)	EA	\$1,500.00	\$16,000.00	\$16,000.00
506	CURTAIN WALL	LF	\$180.00	\$180.00	\$180.00
506	SOIL RIPRAP (9 INCH)	CY	\$80.00	\$86.67	\$105.00
506	BURIED RIPRAP (18 INCH)	CY	\$92.50	\$167.87	\$167.87
506	BURIED RIPRAP (24 INCH)	CY	\$111.00	\$323.51	\$323.51
601	CONCRETE CLASS D (BOX CULVERT)	CY	\$500.00	\$1,191.00	\$813.00
601	CONCRETE CLASS D	CY	\$550.00	\$650.00	\$650.00
602	REINFORCING STEEL (EPOXY COATED)	LB	\$1.00	\$2.28	\$1.10
603	18" REINFORCED CONCRETE PIPE (CIP)	LF	\$77.50	\$109.00	\$121.00
603	24" REINFORCED CONCRETE PIPE (CIP)	LF	\$90.00	\$119.67	\$148.00
603	48" REINFORCED CONCRETE PIPE (CIP)	LF	\$250.00	\$241.83	\$195.49
603	18" CORRUGATED STEEL PIPE (CIP)	LF	\$83.00	\$86.68	\$70.60
603	24" CORRUGATED STEEL PIPE (CIP)	LF	\$103.33	\$102.56	\$89.67
603	30" CORRUGATED STEEL PIPE (CIP)	LF	\$136.67	\$191.11	\$252.84
603	36" CORRUGATED STEEL PIPE (CIP)	LF	\$175.00	\$165.72	\$226.46
603	42" CORRUGATED STEEL PIPE (CIP)	LF	\$250.00	\$253.49	\$304.47
603	48" CORRUGATED STEEL PIPE (CIP)	LF	\$250.00	\$288.91	\$412.81
603	54" CORRUGATED STEEL PIPE (CIP)	LF	\$210.00	\$198.27	\$208.00
603	60" CORRUGATED STEEL PIPE (CIP)	LF	\$250.00	\$187.00	\$156.00
603	60" CORRUGATED STEEL PIPE (INSTALL ONLY)	LF	\$275.00	\$207.25	\$155.50
603	96" CORRUGATED STEEL PIPE (CIP)	LF	\$300.00	\$366.36	\$290.00
603	18X12-INCH CORRUGATED STEEP PIPE ELLIPTICAL	LF	\$70.00	\$200.00	\$200.00
603	18" STEEL END SECTION (CIP)	EA	\$350.00	\$352.93	\$307.00
603	24" STEEL END SECTION (CIP)	EA	\$425.00	\$415.83	\$357.50
603	30" STEEL END SECTION (CIP)	EA	\$500.00	\$716.07	\$561.00
603	36" STEEL END SECTION (CIP)	EA	\$800.00	\$904.13	\$710.00
603	54" STEEL END SECTION (CIP)	EA	\$1,500.00	\$1,948.34	\$1,585.00
603	7X7 FOOT CONCRETE BOX CULVERT (PRECAST) (INSTALL ONLY)	LF	\$400.00	\$321.00	\$285.00
603	TEMPORARY DIVERSION PIPE (SPECIAL)	LF	\$10.00	\$245.00	\$245.00
606	GUARDRAIL TYPE 7 (STYLE CE)	LF	\$120.00	\$120.00	\$120.00
606	GUARDRAIL END ANCHOR, NON FLARED	EA.	\$2,250.00	\$2,344.95	\$2,200.00
606	GUARDRAIL END ANCHOR, NON FLARED (7-FOOT POSTS)	EA.	\$2,500.00	\$3,900.00	\$3,900.00
606	GUARDRAIL END ANCHOR, FLARED (SRT)	EA.	\$2,250.00	\$1,559.48	\$1,350.00
606	GUARDRAIL END ANCHOR, (TYPE 3K) (LOW SPEED)	EA.	\$1,500.00	\$2,000.00	\$2,000.00
606	TRANSITION, TYPE 3L	EA.	\$850.00	\$1,060.35	\$1,050.00
606	TRANSITION, TYPE 3G (7-FOOT POSTS)	EA.	\$1,800.00	\$2,100.00	\$2,100.00
606	GUARDRAIL, TYPE 3 (BRIDGE RAIL)	LF	\$100.00	\$184.11	\$152.00
606	GUARDRAIL, TYPE 3 (RADIUS RAIL)	LF	\$25.00	\$43.40	\$45.00
612	DELINEATOR, TYPE I	EACH	\$25.00	\$22.32	\$18.00
612	DELINEATOR, TYPE III	EACH			
614	IMPACT ATTENUATOR (SPECIAL)	EA.	\$10,000.00	\$22,000.00	\$22,000.00
620	SANITARY FACILITY	EA.	\$600.00	\$596.25	\$502.19
621	TEMPORARY ACCESS	LS	\$6,000.00	\$21,787.31	\$21,787.31
625	CONSTRUCTION SURVEYING	LS	\$8,750.00	\$16,588.09	\$12,096.43
626	MOBILIZATION	LS	\$40,800.00	\$66,117.09	\$65,011.55
627	EPOXY PAVEMENT MARKING PAINT	GAL	\$60.00	\$200.00	\$200.00
627	PAVEMENT MARKING PAINT (TEMPORARY)	SF	\$4.00	\$5.00	\$5.00
630	FLAGGING	HOURL	\$26.90	\$25.29	\$23.50
630	TRAFFIC CONTROL INSPECTION	DAY	\$199.09	\$234.75	\$252.14
630	TRAFFIC CONTROL MANAGEMENT	HR	\$70.00	\$61.22	\$61.22
630	TRAFFIC CONTROL MANAGEMENT	DAY	\$584.00	\$631.69	\$550.60
630	FLASHING BEACON (PORTABLE)	EA	\$570.00	\$915.00	\$915.00
630	CONCRETE BARRIER (TEMPORARY)	LF	\$35.00	\$31.00	\$31.00
630	BARRICADE (TYPE 3 M-A) (TEMPORARY)	EACH	\$135.00	\$165.00	\$150.00
630	CONSTRUCTION TRAFFIC SIGN (PANEL SIZE A)	EACH	\$66.43	\$67.17	\$70.49

Colorado Department of Transportation
2013 Cost Data

09:58 Monday, February 24, 2014 3

INDEX AND AVERAGE UNIT BID PRICES FOR 01/01/13 THROUGH 12/31/13

ITEM NUMBER	ITEM	TOTAL QUANTITY	UNIT	TOTAL COST	AVERAGE PRICE
202-00840	Removal of Traffic Signal Pole	19	Each	12,142.00	639.05
202-00842	Removal of Mast Arm	4	Each	647.00	161.75
202-00848	Removal of Traffic Signal Controller and Cabinet	10	Each	7,201.00	720.10
202-00855	Removal of Traffic Signal Controller Cabinet	1	Each	844.40	844.40
202-00858	Removal of Pedestal Pole	1	Each	216.00	216.00
202-00860	Removal of Pedestrian Push Button	3	Each	75.00	25.00
202-00888	Removal of Video Detection System	1	Each	216.00	216.00
202-00895	Removal of Impact Attenuator	6	Each	7,481.75	1,246.96
202-00900	Removal of Concrete Footing	9	Each	5,040.00	560.00
202-01000	Removal of Fence	46,317	Lin Foot	57,357.15	1.24
202-01015	Removal of Rockfall Fence	785	Lin Foot	19,625.00	25.00
202-01030	Removal of Road Closure Gate	10	Each	7,418.82	741.88
202-01040	Removal of HOV Gate	4	Each	888.00	222.00
202-01130	Removal of Guardrail Type 3	198,092	Lin Foot	429,575.10	2.17
202-01140	Removal of Guardrail Type 4	3,395	Lin Foot	56,950.40	16.77
202-01170	Removal of Guardrail Type 7	35,438	Lin Foot	379,750.58	10.72
202-01180	Removal of Median Barrier	3,652	Lin Foot	76,602.30	20.98
202-01200	Removal of Tensioned Cable Barrier	1,000	Lin Foot	3,000.00	3.00
202-01300	Removal of End Anchorage	575	Each	99,886.29	173.72
202-04001	Plug Culvert	20	Each	34,595.99	1,729.80
202-04002	Clean Culvert	307	Each	458,979.00	1,495.05
202-04003	Clean Culvert (Special)	150	Each	192,320.00	1,282.13
202-04005	Clean Valve Box	147	Each	38,990.40	265.24
202-04010	Clean Inlet	99	Each	76,838.59	776.15
202-04060	Dust Abatement	1	Lump Sum	40,000.00	40,000.00
202-04100	Abandon Well	3	Each	3,600.00	1,200.00
202-05019	Sawing Concrete (Special)	1,438	Lin Foot	32,990.00	22.94
202-05026	Sawing Asphalt Material (6 Inch)	1,223	Lin Foot	2,572.50	2.10
202-05030	Sawing Asphalt Material (10 Inch)	26,938	Lin Foot	29,039.99	1.08
202-05100	Sandblasting Reinforcing Steel	663	Sq Yard	13,184.20	19.89
202-05150	Sandblasting	150,731	Sq Foot	73,320.64	0.49
202-06000	Removal of Detour	2	Lump Sum	209,552.96	104,776.48
202-07000	Obliterate Old Road	2	Lump Sum	21,400.00	10,700.00
203-00000	Unclassified Excavation	321,996	Cubic Yard	962,556.25	2.99
203-00010	Unclassified Excavation (Complete In Place)	484,996	Cubic Yard	4,521,563.24	9.32
203-00060	Embankment Material (Complete In Place)	1,090,203	Cubic Yard	9,226,073.08	8.46
203-00061	Embankment Material (Complete In Place)	462	Ton	18,480.00	40.00
203-00062	Embankment Material (Complete In Place) (Special)	23,942	Cubic Yard	619,369.48	25.87

BID # 5913-13**SEPTEMBER 2013 FLOOD CONSTRUCTION SERVICES
TO REPAIR SECTIONS OF THE ST. VRAIN CREEK****BID TABULATION SHEET FOR BREACHED SECTIONS 1, 2 AND 7**

ITEM NO.	ITEM DESCRIPTION	UNIT	EST. QTY.	UNIT COST	TOTAL COST
All Breached Sections and Sediment Removal Area					
1	Mobilization and Preparatory Work	L.S.	1		\$ 5,000.00
2	Access Route Preparation	L.S.	1		—
3	Erosion and Sediment Control	L.S.	1		\$ 2,500.00
Breached Section 1					
4	Incidental Excavation of Woody Materials and Soil Deposited by Flooding to Facilitate Repairs	C.Y.	200		—
5*	Stream Bank Breach Repair (1200 linear feet Berm)	C.Y.	2,400	\$ 3.75	\$ 9,000.00
6*	Import and Install 12" Clay Cap on Berm	C.Y.	1,200	\$ 7.50	\$ 9,000.00
7*	Install Type M Rip Rap	C.Y.	450	\$76.77	\$ 34,546.50
Breached Section 2					
8	Water Control and Dewatering	L.S.	1		—
9	Incidental Excavation of Woody Materials and Soil Deposited by Flooding to Facilitate Repairs	C.Y.	300	\$ 3.33	\$ 999.00
10	Import and Mix Clay into Bank Repair	C.Y.	740	\$12.00	\$ 8,880.00
11	Stream Bank Breach Repair (100 linear feet)	C.Y.	925	\$ 9.38	\$ 8,676.50
12	Install Type M and H Rip Rap	C.Y.	60	\$76.77	\$ 4,606.20
Breached Section 7					
13	Stream Bank Breach Repair (135 linear feet)	C.Y.	910	\$ 9.38	\$ 8,535.80
14	Import and Install 12" Clay Cap on Breach Fill	C.Y.	230	\$12.00	\$ 2,760.00
15	Install Type M Rip Rap	C.Y.	70	\$76.77	\$ 5,373.90
Sediment Removal Area					
16*	Unclassified Excavation (removal of sediments deposited by flooding from stream channel)	C.Y.	9,450	\$ 3.12	\$29,484.00
17*	Haul Sediments to Designated Sites (within 5 miles)	C.Y.	6,450	\$ 6.40	\$41,280.00
Bank Stabilization Area					
18	Unclassified Excavation (shaping the eroded bank)	C.Y.	200	\$ 9.38	\$ 1,876.00
19	Install Type M and H Rip Rap	C.Y.	200	\$76.77	\$15,354.00
PROJECT TOTAL					\$187,871.90

9.52

CAP EXCAVATING

BID # 6050-14

SEPTEMBER 2013 FLOOD CONSTRUCTION SERVICES FOR SOUTH BRANCH DITCH RESTORATION

BID SCHEDULE

PAY ITEM	PAY ITEM	UNIT	TOTAL	UNIT	TOTAL
NO.	DESCRIPTION		QTY.	PRICE	COST
1	Mobilization/Demobilization/Restoration	L.S.	1		
				\$2,500.00	\$ 2,500.00
2	Clearing and Grubbing	L.S.	1		
				\$2,000.00	\$ 2,000.00
3	Debris Removal and Disposal	C.Y.	200		
				\$ 25.00	\$ 5,000.00
4	Access Route Establishment and Restoration	L.S.	1		
				\$ 200.00	\$ 200.00
5	Water Control	L.S.	1		
				\$2,600.00	\$ 2,600.00
6	Strip, Stockpile and Place Topsoil	C.Y.	100		
				\$ 1.00	\$ 100.00
7	Base Embankment Fill	C.Y.	21,000		
				\$ 10.95	\$229,950.00
8	Ditch Lining Embankment Fill	C.Y.	1,000		
				\$ 16.00	\$ 16,000.00
9	Unclassified Fill	C.Y.	100		
				\$ 27.00	\$ 2,700.00
10	Construction Materials Testing	L.S.	1		
				\$3,500.00	\$ 3,500.00
11	Grading	L.S.	1		
				\$ 100.00	\$ 100.00
12	24-Inch Diameter RCP	L.F.	240		
				\$ 58.10	\$ 13,944.00
13	24-Inch Diameter FES	Each	4		
				\$ 807.00	\$ 3,228.00
BID TOTAL					\$281,822.00

COST ESTIMATING & EQUIPMENT RENTAL RATE GUIDE

NEW CONSTRUCTION

APRIL 2011



*PREPARED BY
PROJECT MANAGEMENT & DESIGN GROUP
BOULDER COUNTY PARKS & OPEN SPACE*

Curbing (Complete in Place)

Stone (red sandstone)	25/lf	65/lf
Timber (6 x 8)	15.50/lf	40/lf

Earthwork

Grading/blading		105/hr
Hauling (12 yd truck)	5/ton	6/ton
(20 yd semi)	4.50/ton	5/ton
Imported Fill	7.50/ton	20/ton
Potholing		160/hr
Rip-rap	55/cy	85/cy
Topsoil (place)		13/ton
Topsoil (strip & stockpile)		7/ton

Unclassified Excavation (Complete in Place)**19/cy****Erosion Control & Revegetation**Erosion Control

Check Dam (6 in – 9 in rock)	175/ea
Check Dam (straw bales)	18/bale
Concrete washout	620/ea

Erosion Control Blanket (biodegradable coconut fibers/jute netting)**2/sy**

Silt Fence	1.50/lf
Stabilized Construction Entrance (vehicle track pad 12'x40')	975/ea
Wattles (12 in)	4.40/lf
Wattles (18 in)	5.30/lf
Revegetation	
Drill seeding (small acreage)	190/ac
Drill seeding (large acreage)	130/ac

Hydro-mulch

1600/ac

Straw Mulch (crimped & weed free)

550/ac

Fencing & Gates

Fencing

Construction Fencing (orange plastic)	2.08/lf	1.65/lf
Corner Brace (wire fence)	90/ea	295/ea
End Brace (wire fence)	65/ea	205/ea
High Tensile Fence (10 strand)		3/lf
Post and Dowel (2 rail)	5/lf	7/lf
Post and Dowel (3 rail)	7/lf	12/lf
Prairie Dog Barrier (chicken wire attached to existing fence)		3/lf
Prairie Dog Barrier (steel panel)		24/lf
Prairie Dog Barrier installed on Gates (steel panel)		12/lf
Wire Fence-Barbed 5 strand (mountains)	1.25/lf	6/lf
Wire Fence-Barbed 5 strand (Plains)	1.23/lf	2.75/lf
Wire Fence-Smooth 5 strand (Plains)	1.15/lf	2.75/lf
Worm (Lodgepole Pine)	24/lf	40/lf

Bollards & Gates

Bollards

2" Steel Tube Livestock (4 ft)	85/ea*	135/ea*
2" Steel Tube Livestock (6ft)	95/ea*	145/ea*
2" Steel Tube Livestock (8 ft)	105/ea*	165/ea*
2" Steel Tube Livestock (10ft)	125/ea*	175/ea*
2" Steel Tube Livestock (12ft)	140/ea*	190/ea*
2" Steel Tube Livestock (16 ft)	180/ea*	225/ea*

Steel Pipe

Wire Drop with closer (12ft – 16ft)	50/ea*	100/ea*
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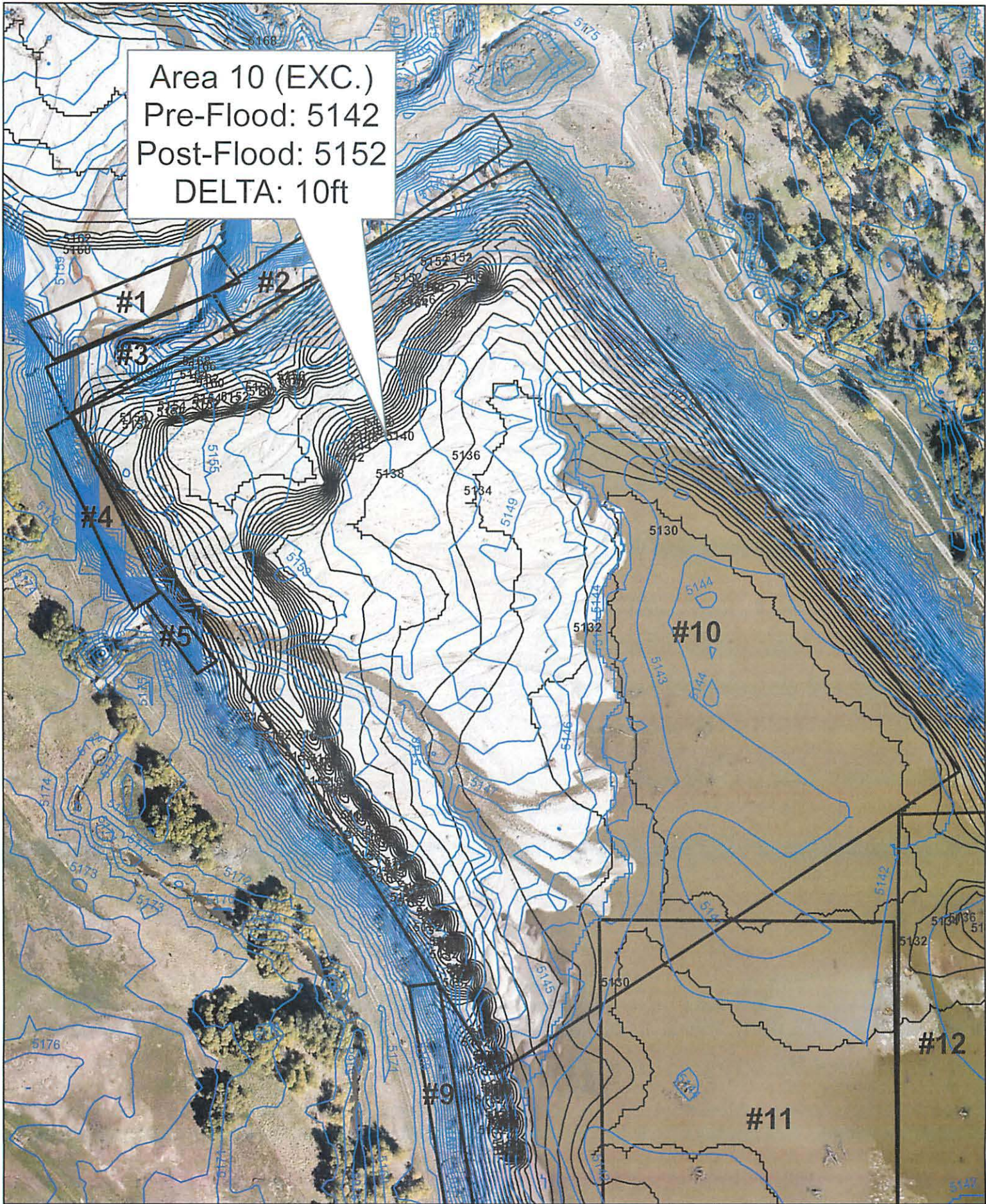
VALIDATION OF LUMP SUM WATER CONTROL / DEWATERING COST

CostWorks 2013 - Lake 2 & 3 Dredging											
Qty	CSI Number	Description	Crew	Daily Output	Labor Hours	Unit	Bare Mat.	Bare Labor	Bare Equip.	Total	Total Incl. O&P
20.000	31 23 1920 1100	Dewatering, pumping, 8 hr., attended 8 hours per day, 6" centrifugal pump, includes 20 L.F. of suction hose and 100 L.F. of discharge hose	B10K	1	8	Day	0.00	5,580.00	7,100.00	12,680.00	17,100.00
20.000	31 23 1920 1120	Dewatering, pumping, 8 hr., attended 8 hours per day, 6" centrifugal pump, includes 20 L.F. of suction hose and 100 L.F. of discharge hose, add for additional pump				Day	0.00	0.00	6,400.00	6,400.00	7,100.00
Totals							\$0.00	\$5,580.00	\$13,500.00	\$19,080.00	\$24,200.00



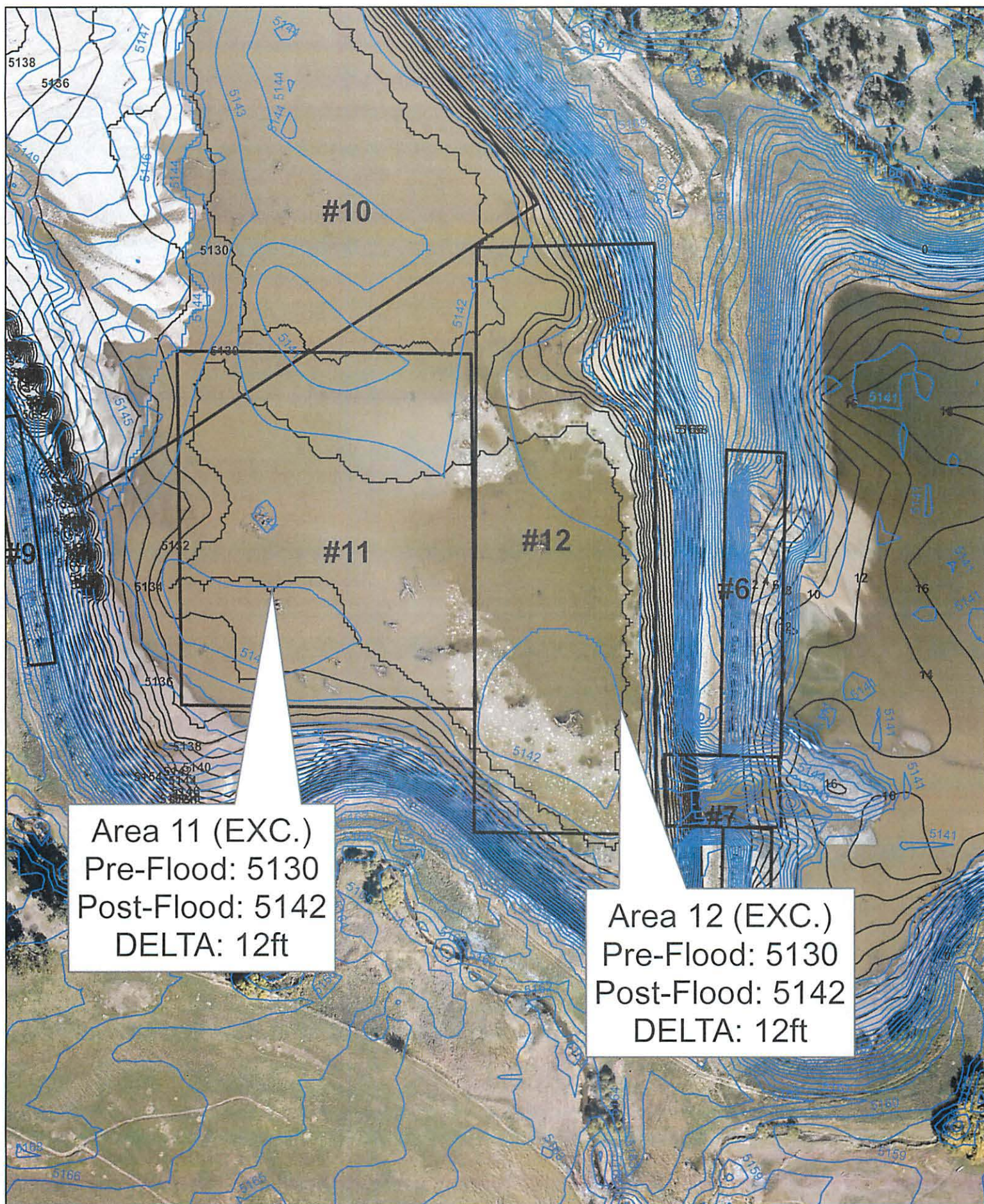
0 200 400 800
Feet

Lake #4 - Western Mobile
Pre Flood Data
*map for illustrative purposes only



0 150 300 600 Feet

Lake #4 - Western Mobile

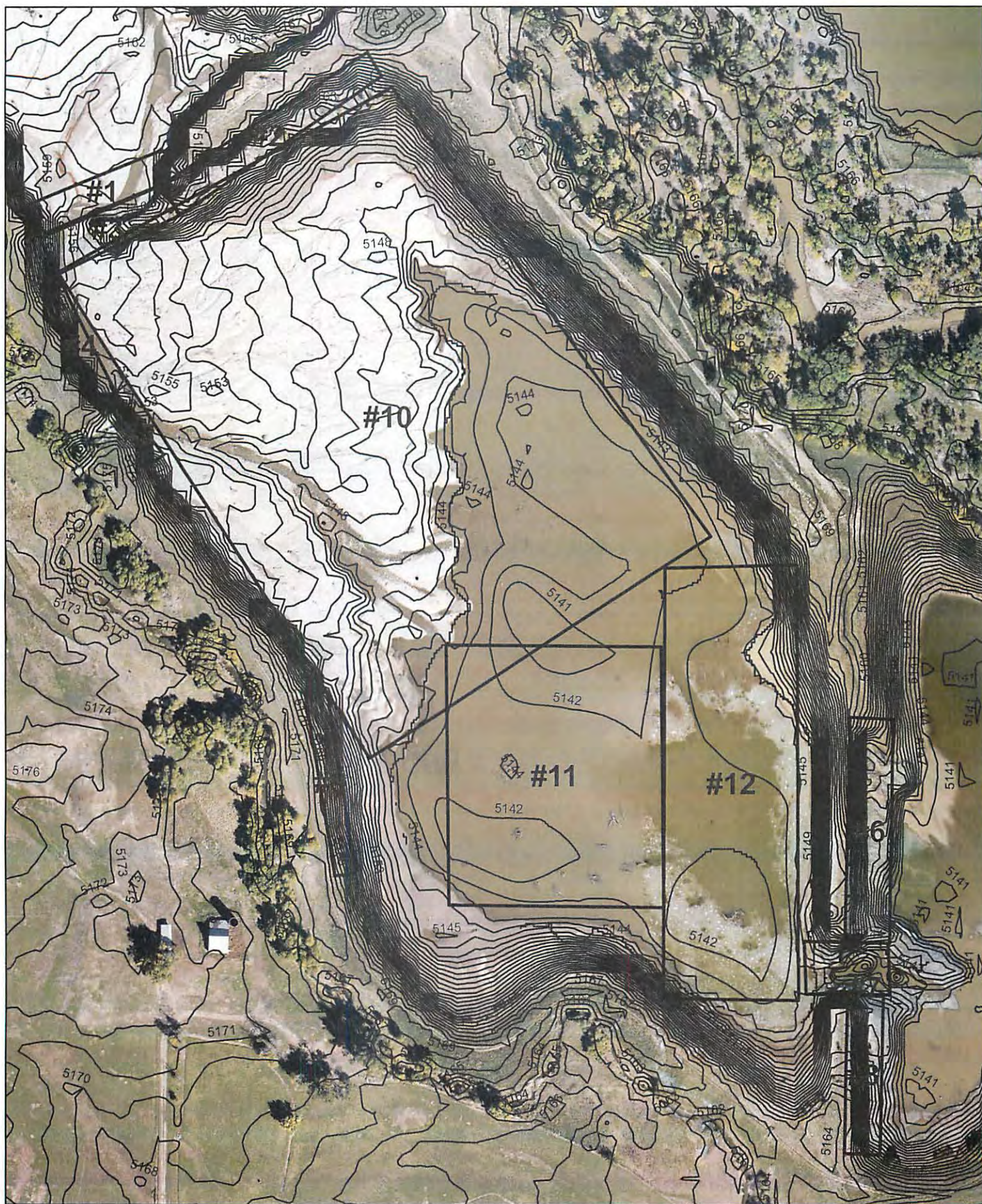


Area 11 (EXC.)
Pre-Flood: 5130
Post-Flood: 5142
DELTA: 12ft

Area 12 (EXC.)
Pre-Flood: 5130
Post-Flood: 5142
DELTA: 12ft



Lake #4 - Western Mobile



0 200 400 800 Feet

Lake #4 - Western Mobile

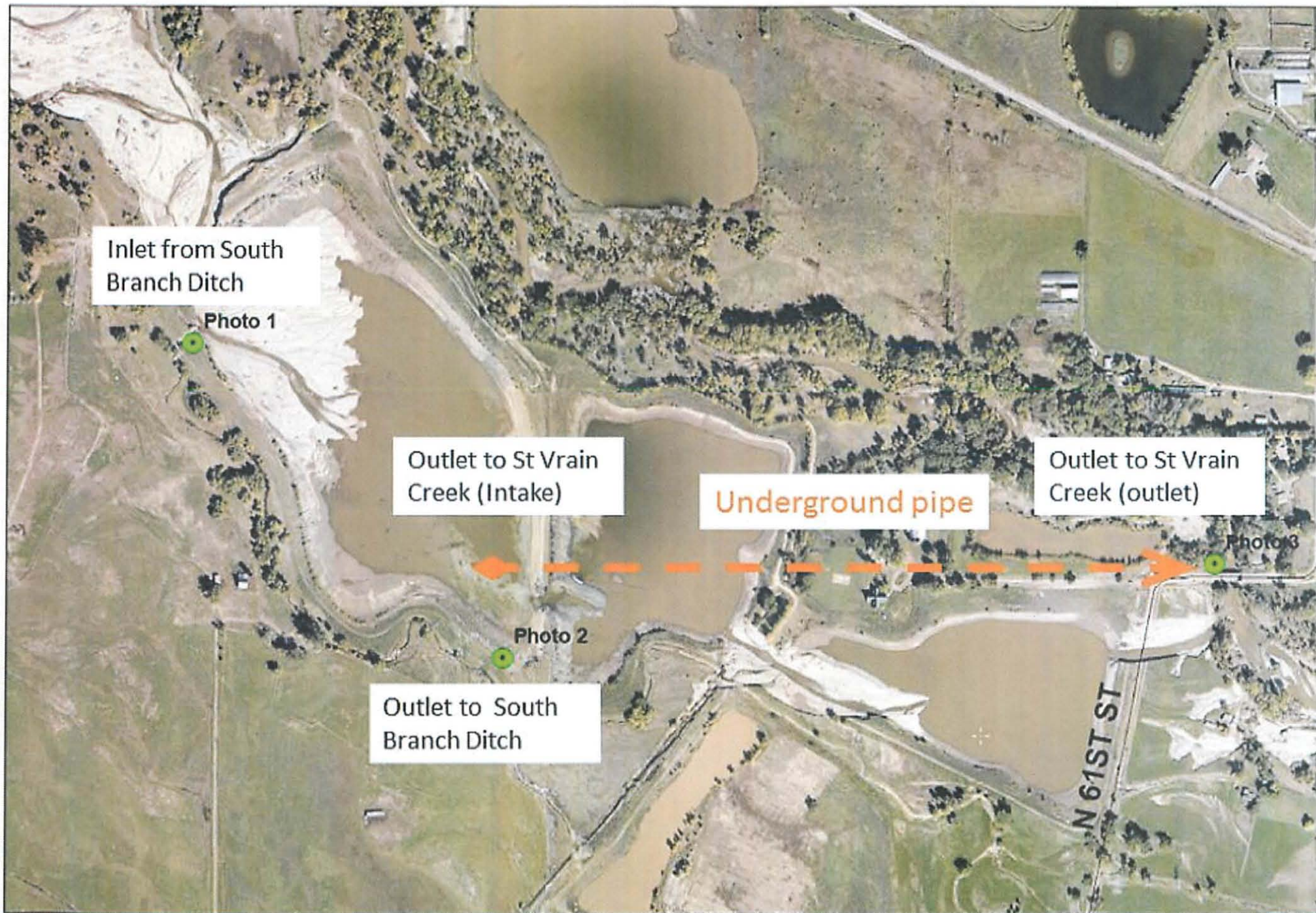
Post Flood Data

*map for illustrative purposes only



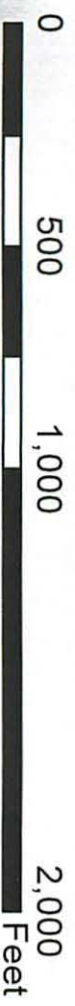
0 200 400 800
Feet

Lake #4 - Western Mobile
Shoreline Restoration
*map for illustrative purposes only



0 500 1,000 2,000 Feet

Lake #4 - Instrumentation Photos



Lake #4 - Instrumentation Photos