

LAKE 4 OUTLET PIPELINE REPAIR

FEASIBILITY STUDY



PREPARED FOR:

ST. VRAIN & LEFT HAND WATER CONSERVANCY DISTRICT
9595 NELSON ROAD
LONGMONT, COLORADO 80501

NOVEMBER 8, 2016

DEERE & AULT
CONSULTANTS, INC.

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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 1/13/17

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ACKNOWLEDGEMENTS

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The material in this report was prepared by Deere & Ault Consultants, Inc. (D&A) under the supervision and direction of the undersigned:



Mark A. McLean, P.E.

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1.0 BACKGROUND AND PURPOSE

During the 1990's, and upon completion of mining for construction aggregates by Western Paving, Rock'n WP Ranch Lake No. 4 (Lake 4) was created by reclaiming the mined slopes, installing a slurry wall liner around the former gravel pit, and installing inlet and outlet structures. The outlet works included an 18-inch reinforced concrete pressure pipe approximately one-half mile long from the dam to St. Vrain Creek. The St. Vrain & Left Hand Water Conservancy District (the District) and Boulder County Parks and Open Space (Boulder County) jointly purchased the lined reservoir in 2001. **Figure 1** is provided to show the Lake 4 vicinity. As shown on **Figure 1**, two unlined gravel pit ponds, known as West Lake and A-Frame Lake, and both owned by Boulder County, are located between Lake 4 and St. Vrain Creek.

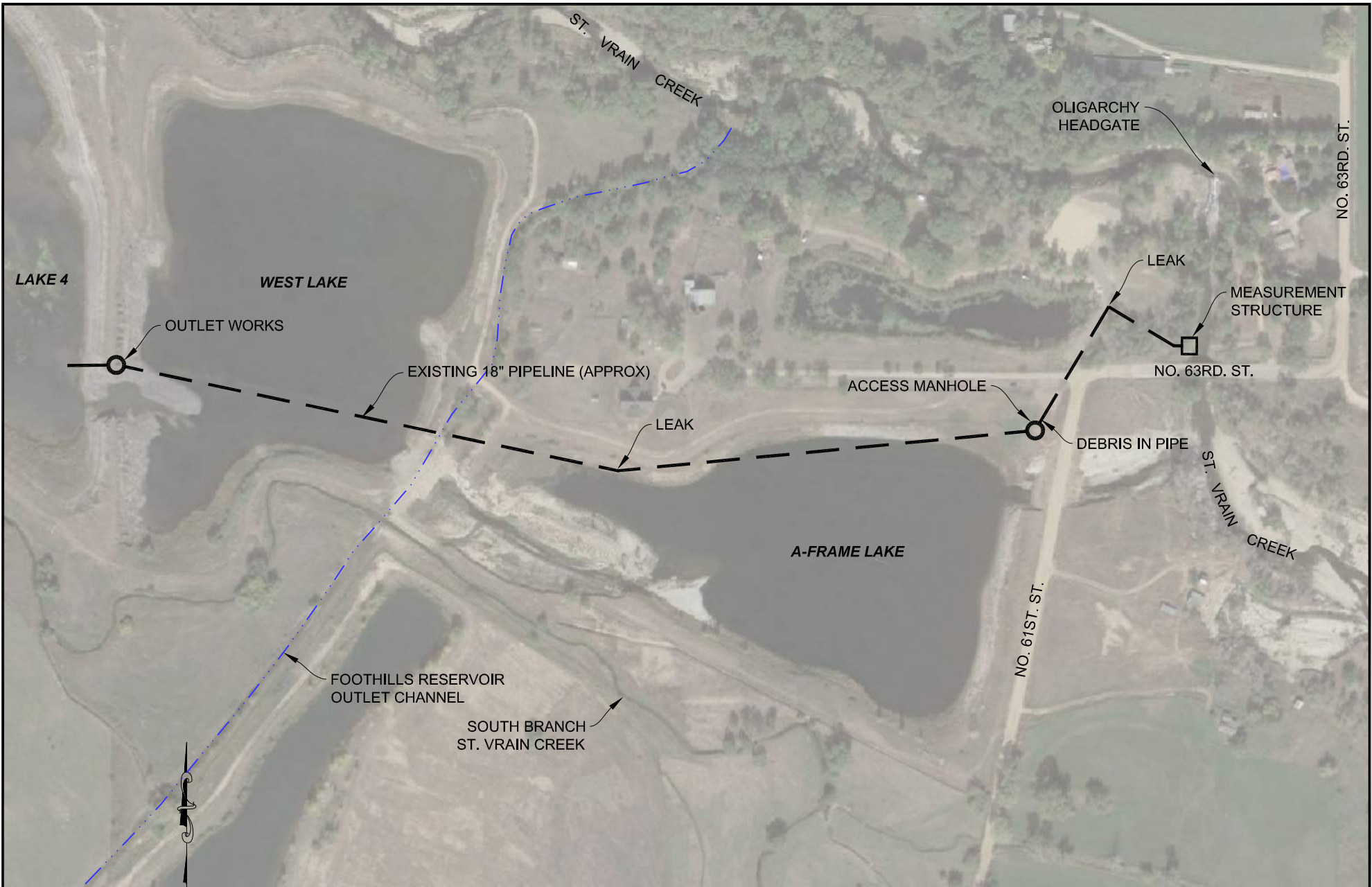
Lake 4 is currently located on Boulder County open space property and before the flood was used by the District to supply augmentation replacement water to St. Vrain Creek. The Lake 4 outlet pipeline is currently located in or near an easement on Boulder County open space property except for the last 400 feet which crosses a private property to the north in an easement. A concrete discharge and measurement structure is located on the west bank of St. Vrain Creek approximately 50 feet north of the 63rd St. bridge.

During the summer of 2013 the District was undertaking planning for an evaluation of the condition of the outlet pipeline from Lake 4 which appeared to be either leaking water from Lake 4 through the control gate at the dam, or leaking groundwater into the pipe through pipe joints or breaks. However, before that evaluation could be fully planned and implemented, St. Vrain Creek left its banks during the historic flood of September, 2013 and flowed into upstream (west) end of Lake 4. The flood overtopped the dam at Lake 4 ultimately causing it to fail immediately adjacent to the outlet works control structure. Utilizing FEMA and State of Colorado financial assistance for 87.5 percent of the repair cost, and using a CWCB Flood Emergency Loan for 12.5 percent of the repair cost, the District and BCPOS are currently undertaking design of repairs to the dam which will include replacement of the outlet works control structure located in the dam.

In spite of the damage to the dam, the flood did not cause further damage to the outlet pipeline itself. Subsequently, the District and Boulder County have been able to complete an interior inspection of the pipeline and determined that it is leaking in several locations, with a significant leak approximately 1,000 feet west of 61st St. and another leak at a bend in the pipeline on the private property but that it is structurally sound. It is critical for reservoir accounting and water rights administration purposes that the water delivered through the pipeline be water from Lake 4 and not groundwater leaking into the pipe between the dam and the river. Therefore the District and Boulder County desire to repair or replace the pipe to resolve the leakage and to extend the service life of the structure. Several alternatives for repair or replacement of the outlet pipeline have been investigated and are presented herein.

The purpose of this report is to describe the technical and financial feasibility of repairing the Lake 4 outlet pipeline, and financing the repair utilizing a Colorado Water Conservation Board (CWCB) Construction Fund Loan.

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SCALE IN FEET

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LAKE 4 OUTLET PIPELINE REPLACEMENT
VICINITY MAP

JOB NO. 0155.005.03

SCALE: AS NOTED

FIGURE NO.

1

2.0 PROJECT SPONSOR

As mentioned previously, the Lake 4 reservoir water rights, land, and appurtenant inlet and outlet structures are jointly owned by the District and Boulder County. Because Boulder County has and continues to manage numerous 2013-flood related repairs, Boulder County and the District have agreed that the District will undertake the Lake 4 outlet pipeline repair. By agreement (see **Appendix A**) Boulder County has agreed to provide half the cost of the pipeline repair project, up to a total amount of \$298,750. Therefore, the District is the sponsoring entity for this project.

The St. Vrain and Left Hand Water Conservancy District was organized April 19, 1971 as a non-profit water conservancy district under the Water Conservancy Act of the State of Colorado (Colorado Revised Statutes of 1973, Section 37.45-102 to 152, as amended). The District is a quasi-municipal corporation and a political subdivision of the State of Colorado with all powers thereof which include the power to levy taxes against property within the District. The District is administered by an appointed Board of Directors. Its stated mission is to serve its basins by protecting water rights, encouraging improved water management, and supporting the development of additional water storage. Its goals are:

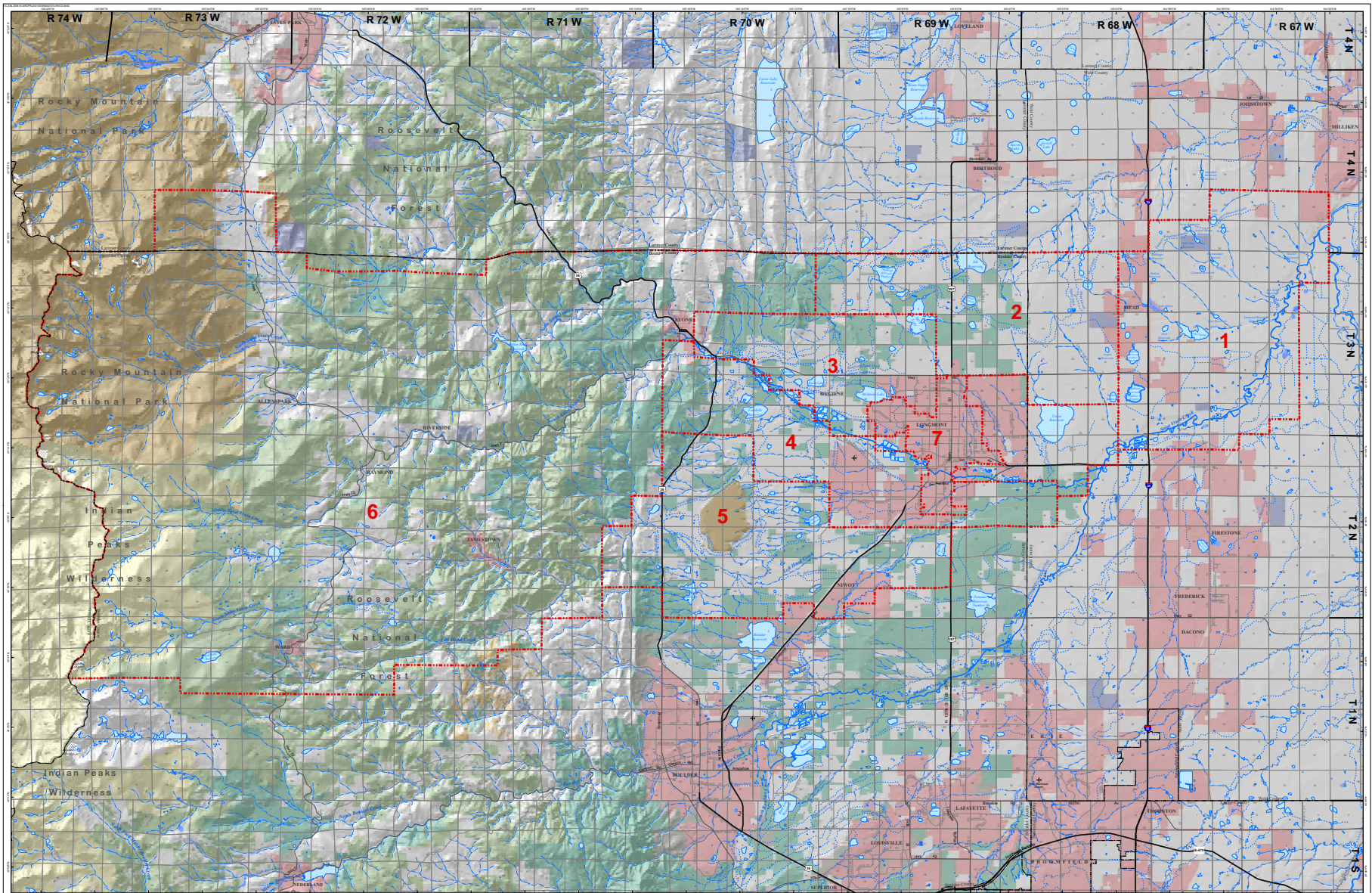
- 1) To protect and preserve water rights within the St. Vrain and Left Hand basins,
- 2) To support efforts to provide additional water storage capacity for flood control, recreation and water supply,
- 3) To work cooperatively with other water uses in the basin to optimize water management for the benefit of all water users, and
- 4) To work cooperatively with other water oriented governmental and/or private sector rights.

A map of the District is included in **Figure 2**. The District's By-Laws/Articles of Incorporation are included in **Appendix B**. Annual financial statements for District's Enterprise Fund for the most recent complete two years (years ending December 31, 2014 and December 31, 2015) are included in **Appendix C**.

3.0 WATER RIGHTS

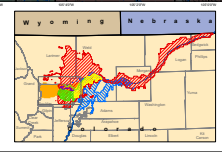
Two water rights have been decreed by the water court for storage at Lake 4. The senior right in the amount of 880 acre-feet (condition) was awarded to Western Paving Construction Company in Case No. 88CW074 but its use for augmentation was limited to replacement of Western Paving's depletions in Boulder and Weld counties. A portion of that right was made absolute for recreation and fish and wildlife preservation and propagation within and along the shores of Lake 4.

After the reservoir's purchase by the District and Boulder County, an application was filed with the water court for Water Division 1 in Case No. 01CW262 to include among other uses, a broader use for augmentation not limited to Western Paving's depletions. A summary of the water rights decreed for storage at Lake 4 are shown in **Table 1**.



- Legend**
- Interstate or Major Highway
 - Other Highway
 - Road or Street
 - Stream or River
 - Canal or Ditch
 - Lake, Pond or Reservoir
 - Wetland or Marsh
 - ✚ Airports
 - Section Line
 - Current City Limits
 - County Boundary
 - District Boundaries
 - National Forest
 - Wilderness Area
 - National Park or National Recreation Area
 - State Land
 - Open Space or Conservation Easement
 - Bureau of Land Management

SAINT VRAIN & LEFT HAND WATER CONSERVANCY DISTRICT



- District Boundaries**
- St. Vrain & Left Hand WCD
 - Central West County WCD
 - East River WCD
 - Northern Colorado WCD
 - Southern Colorado WCD
 - Long Peak WCD
 - Lower Boundary of the Thompson WCD
 - South Platte WCD

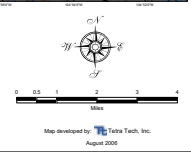


TABLE 1
Rock'n WP Ranch Lake No. 4 Water Rights

Case No.	Source	Amount	Appropriation Date	Adjudication Date
88CW074	St. Vrain Creek	574.43 acre-feet (abs.) 305.57 acre-feet (cond.)	April 23, 1992	December 31, 1992
01CW262	St. Vrain Creek	600 acre-feet (conditional)	December 19, 2001	December 31, 2001

Lake 4 is a key component in the District's basin-wide augmentation plan decreed by the water court for Water Division 1 in Case No. 02CW334 (the Augmentation Plan). Sources used for replacement in the Augmentation Plan include other water storage reservoirs, but Lake 4 is the only St. Vrain basin reservoir facility that is available to make replacements directly to St. Vrain Creek year-round.

3.1 Water Availability

Because of the flood, it has been a number of years since water has been stored in priority at Lake 4. However, the Lake 4 water rights were in-priority to store during the recent period of September, 2015 through nearly all of June, 2016, and during other periods of significant duration before and after the flood. Generally, the District considers that the reservoir would be able to fill on the order of every four years and that the previously stored water would be utilized during the interim.

3.2 Water Supply Demands

The District operates an augmentation decreed in Case No. 02CW334 (Water Division 1) supporting the water uses of 212 small memberships by replacing their out-of-priority depletions to prevent injury to other water rights on St. Vrain Creek and Left Hand Creek. As of August, 2016, the total annual depletions due to the memberships uses are approximately 189.2 acre-feet per year. Of this, 159.2 acre-feet are in the St. Vrain basin and 30 acre-feet are in the Left Hand Creek basin.

The District's direct flow St. Vrain basin water rights provide an average of approximately 41.6 acre-feet per year of fully consumable replacement credit. The remainder, approximately 117.6 acre-feet per year, plus another 3.4 acre-feet per year of winter return flow replacement obligations attributable to the District's use of its direct flow sources for a total of 121 acre-feet per year, must come from storage, and Lake 4 is the District's best source for storage releases. Since the flood, when it has not been able to utilize Lake 4, the District has relied upon a temporary trade of water with the City of Longmont for releases of fully consumable effluent at Longmont's wastewater treatment plant. The use of the Longmont water has been approved by the Division of Water Resources through annual substitute water supply plans.

4.0 PROJECT DESCRIPTION

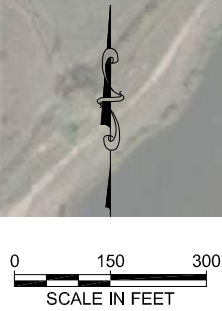
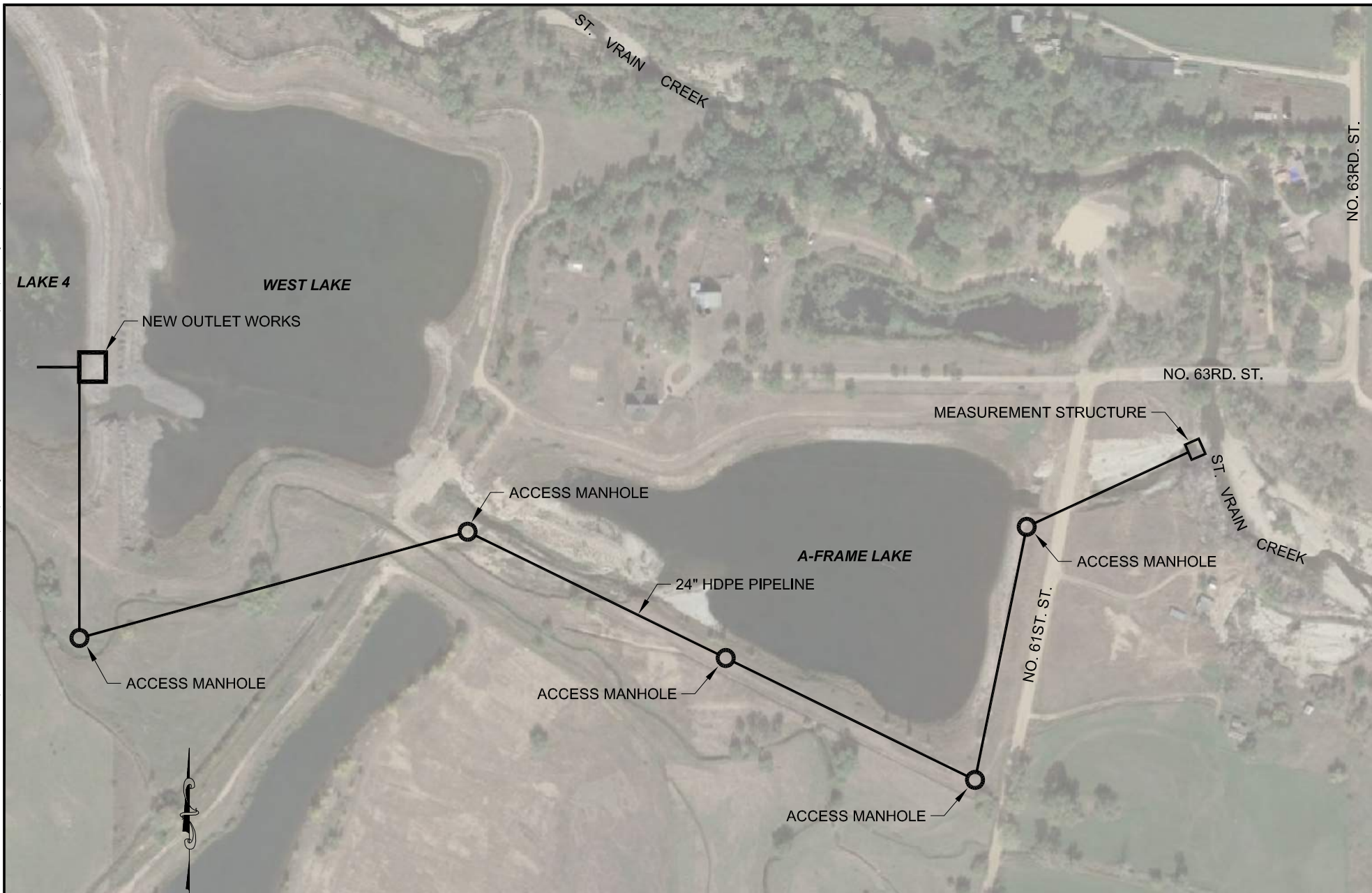
4.1 Analysis of Alternatives

Four alternatives have been considered for repair or replacement of the Lake 4 outlet pipeline. The three pipeline alternatives all include abandonment of approximately 530 feet of the existing 18-inch RCP pipeline so that after repairs, the entire facility will be located on Boulder County property.

- Alternative 1 Abandoning the existing pipeline and replacing it with a new high density polyethylene (HDPE) pipeline between Lake 4 and St. Vrain Creek located south of Boulder County's West Lake and A-Frame Lake. This project would include constructing five access manholes at direction changes along the pipe route and constructing a measurement structure at the discharge to St. Vrain Creek.
- Alternative 2 Repairing the existing pipeline between Lake 4 and St. Vrain Creek. This project would require accessing the existing 18-inch RCP at four locations where new access manholes would be constructed. The existing pipe would be slip-lined with a 16-inch outside diameter, fusion welded, HDPE pipeline. A measurement structure would be constructed at the discharge to St. Vrain Creek.
- Alternative 3 Abandoning the existing pipeline and replacing it with three outlet structures, one releasing from Lake 4 to West Lake, one releasing from West Lake to A-Frame Lake, and one releasing from A-Frame Lake to St. Vrain Creek. Because of the elevation of West Lake, the outlet structure from Lake 4 would not be able to access all of the storage content in Lake 4 by gravity, requiring pumping of roughly the bottom one-third of the water stored therein. This alternative would require two measurement structures, one at Lake 4, and a second at St. Vrain Creek to verify that the Lake 4 release was being conveyed through West Lake and A-Frame Lake and discharged to St. Vrain Creek.
- Alternative 4 No action.

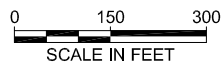
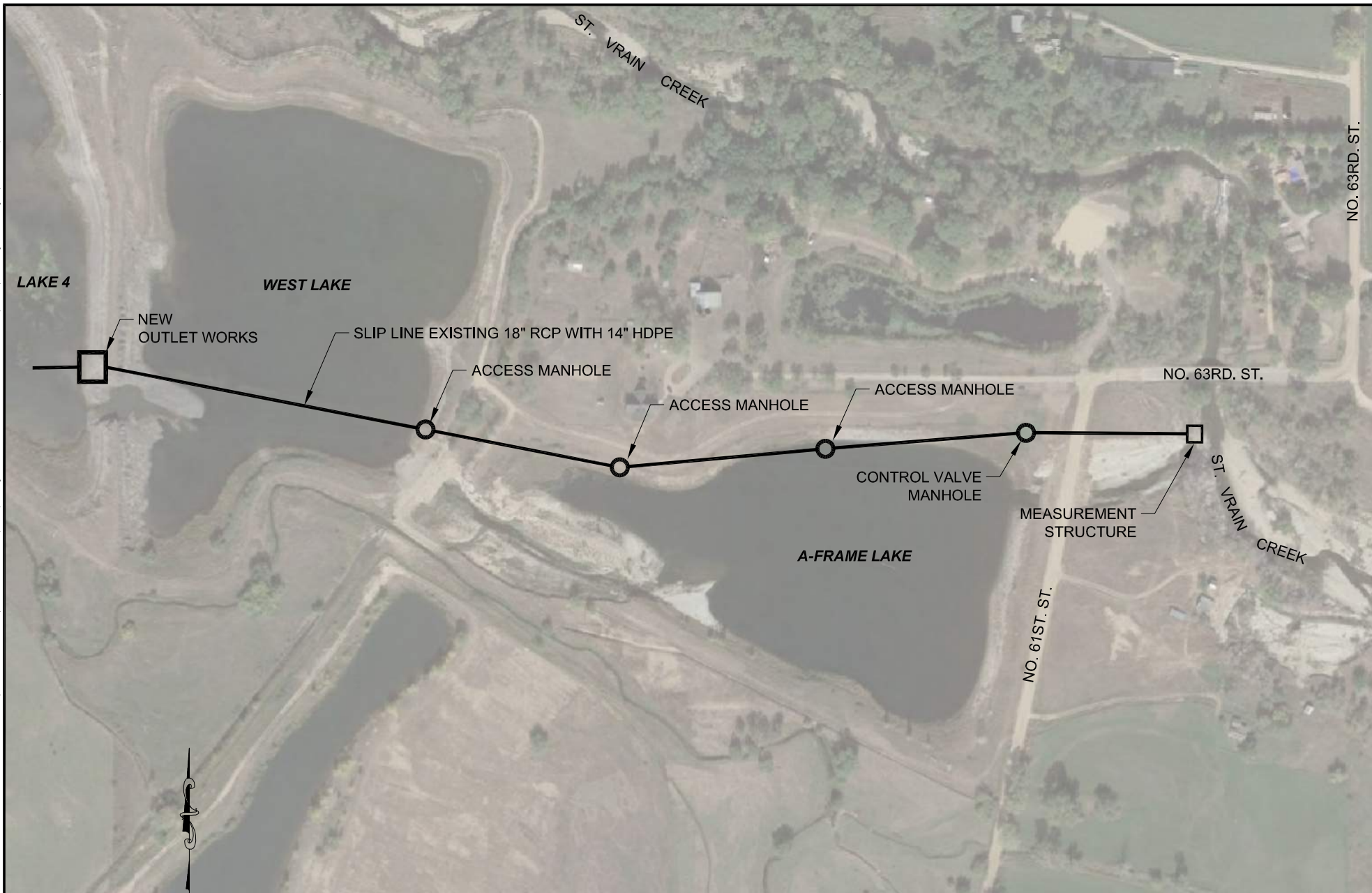
Figure 3, Figure 4 and Figure 5 on the following pages show the elements of the three construction alternatives

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DEERE & AULT CONSULTANTS, INC.	LAKE 4 OUTLET PIPELINE REPLACEMENT ALTERNATE #1 - NEW PIPELINE	FIGURE NO. 3
	JOB NO. 0155.005.03	SCALE: AS NOTED

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LAKE 4 OUTLET PIPELINE REPLACEMENT

ALTERNATE #2 - LINE EXISTING PIPE

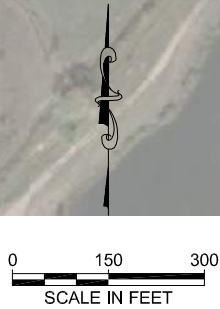
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FIGURE NO.

4

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LAKE 4 OUTLET PIPELINE REPLACEMENT
ALTERNATE #3 - INDIVIDUAL LAKE OUTLETS

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FIGURE NO.

5

4.2 Selected Alternative

Alternative 1 (**Figure 3**) was considered unacceptable because it was the highest cost alternative and because it would be the most disruptive to the natural environment due to the deep excavations required along the route in close proximity to the South Branch of St. Vrain Creek, a natural channel used to convey irrigation water rights. The cost of this option is approximately 174 percent of the cost of Alternative 2.

Alternative 3 (**Figure 5**) was considered unacceptable because, while it was the least costly alternative (approximately 45 percent of the cost of Alternative 2), it would be the most complicated to operate and because it could not eliminate future institutional uncertainties causing it to be deemed to least reliable method. Operating the multiple outlet works to be certain that Lake 4 releases were actually being conveyed to St. Vrain Creek would require the continued involvement and coordination of both Boulder County and the District as the County's two unlined lakes with their environmental and aesthetic goals lie between Lake 4 and the river. There is no guarantee that a conflict between the parties' interests will not arise in the future and if one does, whether that conflict can be resolved without further capital investment. Further, water rights administration and accounting would be complicated by the multiple measurement structures and the possibility that future Division of Water resources administrations might not have a favorable view of the conveyance of water through unlined ponds. Finally, additional costs would be incurred for actual pumping and for pump system maintenance in order to access the lowest storage in Lake 4 during a drought.

Alternative 4, the no action alternative, was considered unacceptable because it would mean the District and Boulder County would lose valuable storage rights and the District's augmentation plan would lose a key structural component in a favorable location.

The selected alternative, Alternative 2 (**Figure 4**), involves slip-lining approximately 2,100 feet of the existing 18-inch RCP with 14-inch HDPE DR 21 (13.75-inch I.D. and 15.3-inch O.D.) pipe; installing approximately 300 feet of new 14-inch HDPE pipeline; installing four access manholes; and installing a Parshall flume measuring structure at the discharge end of the new 300-foot HDPE pipeline near St. Vrain Creek. Alternative 2 has the least environmental impact, the greatest institutional, operational, and administrative certainty, and allows access to the greatest amount of Lake 4 storage by gravity instead of through pumping.

4.3 Cost Estimate

The estimated cost of the complete Alternative 2 project including construction, engineering, permitting and contingencies is \$912,000. A detailed cost estimate is provided in **Table 2**.

By agreement (see **Appendix A**), Boulder County has committed to provide a contribution of 50 percent of the project cost up to a maximum of \$298,750. The District will bear the remainder, estimated to be \$613,250.

TABLE 2
LAKE 4 OUTLET PIPELINE REPAIR
ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COSTS - PRELIMINARY

November 7, 2016

Construction Item	Quantity	Unit	Cost	Extension
1. Mobilization @ 5% (inc. bonds)	1	LS	\$29,000	\$29,000
			Subtotal	\$29,000
2. Outlet Works Pipeline				
a. Clear and Grub	2	AC	\$3,000	\$6,000
b. Dewatering	1	LS	\$110,000	\$110,000
c. Locate Existing Pipe	1	LS	\$15,000	\$15,000
d. 14" HDPE DR 21 (Liner in existing 18-inc RCP) and fittings	1,930	LF	\$100	\$193,000
e. 18" HDPE DR 21 (Cut & Cover)	370	LF	\$140	\$51,800
g. 72" Diameter Access Manhole (with Link-Seal and Conwrap)	4	EA	\$25,000	\$100,000
h. Hydrostatic Test	1	LS	\$4,000	\$4,000
			Subtotal	\$480,000
3. Miscellaneous				
a. Outlet Measurement Structure	1	LS	\$19,500	\$19,500
b. Measurement Instrumentation	1	LS	\$1,500	\$1,500
c. Riprap and Bedding	200	TON	\$60	\$12,000
d. 500 gpm Pump (in final access manhole)	1	LS	\$25,000	\$25,000
e. Electrical Service to Pump	1	LS	\$20,000	\$20,000
f. Abandon Existing Pipe In-Place ("flashfill" cellular concrete grout)	35	CY	\$500	\$17,500
g. Site Restoration (seeding/revegetation)	2	AC	\$4,000	\$8,000
			Subtotal	\$104,000
			Total Construction Items 1-3	\$613,000
			Subtotal Construction Items	\$613,000
			Engineering @ 20%	\$117,000
			Permitting/Regulatory @ 5%	\$29,000
			Unlisted @ 10%	\$61,000
			Contingency @ 15%	\$92,000
			Estimated Total (rounded to nearest \$1,000)	\$912,000

4.4 Implementation Schedule

The final design for the Lake 4 dam repairs are due January 31, 2017 and that project is expected to go to construction in October, 2017. Construction is expected to be completed by June 1, 2018. The Lake 4 outlet pipeline repair project will coordinate with the Lake 4 dam repair in order to be connect with the new outlet works structure to be constructed in the dam as part of the dam repair project and in order to be constructed, tested and operational when the dam repair is completed. Also, the pipeline plans will be included in the submittal to be made to the Division of Water Resources, Dam Safety Branch for the review and approval required prior to the dam repair work beginning.

4.5 Impacts

The impacts of the Lake 4 outlet pipeline repair project will be temporary and will include temporarily lowering West Lake and A-Frame Lake in order to undertake excavation to access the existing pipeline to install the HDPE liner pipe and to construct the access manholes, and otherwise dewatering the manhole excavations.

4.6 Institutional Feasibility

The District will be the lead institution for the project management, financing, design, permitting, and construction of the project and will be the entity entering into contracts and agreements with the various entities for the services provided by each, including:

- Boulder County Parks and Open Space (landowner and project partner, and easement grantor)
- Deere & Ault Consultants, Inc. and its subcontractors (engineering, surveying and permitting services)
- Colorado Water Conservation Board (project financing and construction)
- Colorado Department of Public Health and Environment, Water Quality Control Division (construction dewatering discharge and stormwater runoff permitting)

As part of its overall repair projects (Lake 4 dam, West Lake, and A-Frame Lake), Boulder County and the District anticipate undertaking Boulder County Land Use review in November, 2016 to obtain the necessary grading permits. The parties will also investigate whether any 404 permitting is required. If the US Army Corps of Engineers (USACE) determines that a 404 permit is required, it is anticipated that the work could be performed pursuant to an existing nationwide permit. This will be confirmed with USACE. It is expected that the construction contractor will obtain any construction dewatering and/or stormwater runoff permits that might be required.

There is an easement for the existing pipe but it is unclear whether the location of the described easement exactly coincides with the actual location of the existing pipeline. Further, the new portion of the pipeline (from the existing access manhole location west of 61st St. to St. Vrain Creek) will require a new easement. Therefore, we anticipate that a new easement will be described for the entire pipeline route upon completion of the project and based on the actual location of the pipeline.

5.0 FINANCIAL FEASIBILITY ANALYSIS

The total construction budget estimated for this project including contingencies is \$766,000. Engineering, permitting and regulatory expenses are estimated at \$146,000, or 25 percent of the construction estimate not including mobilization, unlisted items, or contingencies) for a total project cost estimated at \$912,000 (rounded to the nearest \$1,000).

In order to build the project, the District will have \$298,750 available from its partner Boulder County and is seeking a CWCB Construction Fund loan of \$613,250 with repayment over a term of 30 years. Based on the District's augmentation program membership (93 percent high-income municipal and 7 percent commercial), the CWCB Construction Fund loan interest rate is estimated to be 2.838 percent. **Table 3** shows expected expenses and the revenue requirements to service the loan over the 30-year term.

The loan analysis includes funding of a reserve account equal to one annual payment during the first ten years of the loan period. The loan analysis also incorporates a nominal annual operating expense approximately equal to 1 percent of the construction cost (rounded to the nearest \$1,000), or \$8,000 per year. The resulting annual payment on the total project loan (includes the base loan and the 1 percent loan origination fee) is \$30,942 per year and projected annual revenue requirements range from \$41,990 in year 1 to \$48,782 in year 29.

Repayment of the requested CWCB loan will be made by increasing fees charged to members of the augmentation plan. In anticipation of securing the two loans (pipeline and reservoir), the District increased its flat fees by 15% in 2014 and by 50% in 2015. Beginning with 2016, the District changed its fee structure from the flat fee to a base fee plus tiered usage fees to create a more dependable revenue. The 2016 base fee is \$200 per year for residential members and \$500 per year for commercial members. The Tier 1 water usage fee is \$0.75 per 1,000 gallons up to 1 acre-foot per year, and the Tier 2 charge is \$0.55 per 1,000 gallons for every 1,000 gallons used above 1 acre-foot per year. The District's Executive Director is recommending an increase of the base fee and tiered usage fees by 15% for 2017. Currently, the District's Enterprise Fund Augmentation Program has approximately \$120,000 in annual revenue, and with the requested \$30,942 pipeline repair loan will have approximately \$120,000 in annual expenses.

The previously approved Lake 4 reservoir flood damage repair CWCB Construction Fund loan will be due starting in 2020 and after the FEMA and State reimbursement the annual loan payment is expected to be \$27,000 per year. Its cash reserves and projected increased fee revenues in 2018, 2019 and 2020 will be used to meet the annual expenses including both loans. The District projects a budget surplus in 2024 and can begin at that time to rebuild its cash reserve to the Board's policy of 50 percent of annual expenses.

As collateral against the requested pipeline repair loan the District will pledge: 1) revenues from the augmentation program, 2) Colorado-Big Thompson Project units not already pledged for the flood emergency loan, and 3) the project itself, as security against its obligation for repayment of the loan.

ASSUMPTIONS	
Total Construction Cost	\$912,000
Annual Operating Expense	\$8,000
Revenue from Assessments	100%
Inflation	3.0%
Interest on Reserves	1.5%

FINANCING					
Funding Source	Share	Amount	Interest Rate	Loan Term	Annual Payment
Boulder County	33%	\$298,750	n/a	n/a	n/a
CWCB Base Loan	67%	\$613,250	2.838%	30	\$30,636
Loan Orig. Fee		\$6,133	2.838%	30	\$306

TABLE 3
Schedule of Revenues and Expenditures
Lake 4 Outlet Pipeline Repair

Year of Operation	ANNUAL REVENUES		ANNUAL EXPENDITURES						
	Total Revenue Required	Present Value of Future Revenue	Annual Operating Expenses	Loan Reserve Fund		Payments on CWCB Loan	District Cash Funds	Interest on Reserve Funds	Total Expenditures
				Annual	Accum.				
1	\$41,990	\$41,990	\$8,000	\$3,094	\$3,094	\$30,942	\$0	\$46	\$41,990
2	\$42,184	\$40,955	\$8,240	\$3,094	\$6,188	\$30,942	\$0	\$93	\$42,184
3	\$42,384	\$39,951	\$8,487	\$3,094	\$9,283	\$30,942	\$0	\$139	\$42,384
4	\$42,593	\$38,978	\$8,742	\$3,094	\$12,377	\$30,942	\$0	\$186	\$42,593
5	\$42,809	\$38,035	\$9,004	\$3,094	\$15,471	\$30,942	\$0	\$232	\$42,809
6	\$43,032	\$37,120	\$9,274	\$3,094	\$18,565	\$30,942	\$0	\$278	\$43,032
7	\$43,264	\$36,233	\$9,552	\$3,094	\$21,660	\$30,942	\$0	\$325	\$43,264
8	\$43,504	\$35,373	\$9,839	\$3,094	\$24,754	\$30,942	\$0	\$371	\$43,504
9	\$43,753	\$34,539	\$10,134	\$3,094	\$27,848	\$30,942	\$0	\$418	\$43,753
10	\$44,011	\$33,730	\$10,438	\$3,094	\$30,942	\$30,942	\$0	\$464	\$44,011
11	\$41,230	\$30,679	\$10,751		\$30,942	\$30,942	\$0	\$464	\$41,230
12	\$41,552	\$30,018	\$11,074		\$30,942	\$30,942	\$0	\$464	\$41,552
13	\$41,884	\$29,377	\$11,406		\$30,942	\$30,942	\$0	\$464	\$41,884
14	\$42,226	\$28,754	\$11,748		\$30,942	\$30,942	\$0	\$464	\$42,226
15	\$42,579	\$28,150	\$12,101		\$30,942	\$30,942	\$0	\$464	\$42,579
16	\$42,942	\$27,563	\$12,464		\$30,942	\$30,942	\$0	\$464	\$42,942
17	\$43,316	\$26,993	\$12,838		\$30,942	\$30,942	\$0	\$464	\$43,316
18	\$43,701	\$26,440	\$13,223		\$30,942	\$30,942	\$0	\$464	\$43,701
19	\$44,098	\$25,903	\$13,619		\$30,942	\$30,942	\$0	\$464	\$44,098
20	\$44,506	\$25,381	\$14,028		\$30,942	\$30,942	\$0	\$464	\$44,506
21	\$44,927	\$24,875	\$14,449		\$30,942	\$30,942	\$0	\$464	\$44,927
22	\$45,361	\$24,384	\$14,882		\$30,942	\$30,942	\$0	\$464	\$45,361
23	\$45,807	\$23,906	\$15,329		\$30,942	\$30,942	\$0	\$464	\$45,807
24	\$46,267	\$23,443	\$15,789		\$30,942	\$30,942	\$0	\$464	\$46,267
25	\$46,741	\$22,993	\$16,262		\$30,942	\$30,942	\$0	\$464	\$46,741
26	\$47,228	\$22,557	\$16,750		\$30,942	\$30,942	\$0	\$464	\$47,228
27	\$47,731	\$22,133	\$17,253		\$30,942	\$30,942	\$0	\$464	\$47,731
28	\$48,248	\$21,721	\$17,770		\$30,942	\$30,942	\$0	\$464	\$48,248
29	\$48,782	\$21,321	\$18,303		\$30,942	\$30,942	\$0	\$464	\$48,782
30	\$18,853	\$8,000	\$18,853	(\$30,942)	\$0	\$30,942	\$0	\$0	\$18,853
Totals	\$1,297,501		\$380,603			\$928,269	\$0	\$11,371	\$1,297,501

6.0 CONCLUSIONS AND RECOMMENDATION

The District is an incorporated entity with the ability to enter into a contract with the CWCB for the purpose of obtaining a Construction Fund loan. The District is in the process of designing and permitting the project. The project will restore the District's ability to utilize its valuable storage at Lake 4 for replacement of obligations under its augmentation plan decreed in Case No. 02CW334 (Division 1) and will preserve the value of the District's Lake 4 facilities and water rights. The project is technically and financially feasible.

APPENDIX A
DISTRICT AND BOULDER COUNTY
INTERGOVERNMENTAL AGREEMENT
2016

**AMENDMENT TO 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 Amendment to Intergovernmental Agreement between Boulder County and the St. Vrain and Left Hand Water District (the "IGA Amendment") is entered into as of the 8th day of September, 2016, 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 ("Decree").
- 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. 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. To help fund its portion of the Project costs, the District obtained a loan from the Colorado Water Conservation Board. Pursuant to obligations placed upon the District thereunder, the Parties entered into an *Amended Intergovernmental Agreement Between Boulder County and the St. Vrain and Left Hand Water Conservancy District Related to Repairs of Western Mobile Lake No. 4* (the "IGA") on August 13, 2015.
- F. For the purposes of this IGA Amendment, the Parties agree that the repairs to Lake 4 which are the subject of the IGA include repairs to the outlet structure for Lake 4 up to the point of connection between the outlet structure and the pipeline that conveys water from the outlet structure to the St. Vrain Creek. The Parties further agree that, because that pipeline was not damaged by the Flood, costs related to the repair of the pipeline are not eligible for FEMA reimbursement.
- G. The purpose of this IGA Amendment is to set forth the understanding of the Parties regarding design parameters for repairs to Lake 4 and to the pipeline that conveys water from the outlet structure for Lake 4 to the St. Vrain Creek (the "Pipeline Project") and the payment and contractor obligations of the Parties therefor. The Parties agree the Pipeline

Project is a capital improvement as contemplated in ¶8 of the Parties' *November 29, 2001 Tenancy In Common Agreement* ("TIC Agreement"). This IGA Amendment doesn't change any of the ownership benefits or obligations created by and existing pursuant to the TIC Agreement.

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 Parties share the common interest in, and responsibility for, repairing Lake 4 to safely impound, and regulate the release of, water pursuant to the decree for Lake 4 and shall cooperate in good faith with each other to accomplish this goal. An important element in the Lake 4 infrastructure prior to the Flood was the infrastructure for releasing water from Lake 4 and conveying water to the St. Vrain Creek. Subsequent to the Flood, the Parties agreed upon a design by which to repair Lake 4, which design included the outlet structure. The Pipeline Project, which is the subject of this IGA Amendment, focuses specifically on the repair of the existing pipeline through which water is conveyed from the Lake 4 outlet structure to the St. Vrain Creek to enable the Parties to better regulate releases from Lake 4.
2. The IGA provides that the County has primary responsibility for reconstruction of Lake 4, including the outlet structure that was destroyed by the Flood. The IGA did not identify with specificity what the components the "outlet structure" included. This IGA Amendment clarifies that the "outlet structure", subject of the IGA, includes all the outlet works components required to fully repair the dam at Lake 4, up to the point of connection to the pipeline that conveys water from the outlet structure for Lake 4 to the St. Vrain Creek and does not include the pipeline itself. This IGA Amendment also clarifies that the design for reconstruction of Lake 4 is intended to, and shall, unless otherwise agreed to in writing by the Parties, replicate Lake 4's liner and shoreline elevations to those which existed prior the Flood. In particular, the berm and liner located between Lake No. 3 and Lake 4 shall be designed to pre-Flood event elevations. In connection with the reconstruction of Lake 4, the County will remove flood debris that was deposited by the Flood into Lake 4 and relocate that debris to other locations on County-owned property. The Parties agree that the Pipeline Project shall be accounted for, and contracted for, as a separate project from the reconstruction of Lake 4 and its outlet structure.
3. The ability to regulate and measure releases from Lake 4 is a legal requirement of the Parties' Decree. Pursuant to the TIC Agreement, the District operated Lake 4 through the management of diversions into and releases from Lake 4 to the St. Vrain Creek. The Parties acknowledge and agree that, until they negotiate and enter into an Operating Agreement for the management of Lake 4, the District's primary use of Lake 4 to ensure storage of water sufficient to allow augmentation releases pursuant to its decree in Case No. 02CW334, elevates the District's interest in the Pipeline Project above the County's level of interest. Accordingly, the Parties agree that the District is well-positioned to manage the timing and the costs of the Pipeline Project and that the District shall be the

party responsible for design, construction and management of the Pipeline Project. The District shall keep the County apprised of the contracts into which it enters and provide progress reports to the County. As such, the County agrees that, to the extent required, it will modify the current Lake 4 repair contract with the Parties' consultant such that the Pipeline Project is removed from the scope of services for that contract. The County has previously represented, and re-affirms to the District that such modification will not create any additional financial liability to the District. The District agrees to cooperate with the County to document expenses associated with the Pipeline Project in a manner that is satisfactory to the County.

4. The County shall contribute \$298,750 towards the Pipeline Project, with the District to pay the remainder of the costs of the Pipeline Project. The District will invoice the County for 34% of the expenses incurred for the Pipeline Project ("Participation Rate") until the County has reimbursed the District \$298,750.00. If the completed Pipeline Project costs less than \$890,000.00, the County shall pay the District the difference between \$298,750.00 and the amount the District has invoiced the County at the County's Participation Rate. The County agrees that it shall pay the District the amount invoiced within fifteen (15) days of the date of the invoice.
5. The County agrees to provide the District with an easement or easements over, across, and through any real property owned by the County, provided those easements are reasonably necessary for the construction, operation, maintenance, repair and replacement of the Pipeline Project. Any conveyance of an easement or easements to the District must comply with the County's disposition of open space procedures. The County agrees that such easements shall be conveyed at no cost to the District.
6. 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 IGA Amendment, including workers' compensation, automobile liability and general liability.
7. 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 IGA Amendment, 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.
8. The Parties shall perform all services under this IGA Amendment 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 IGA Amendment 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.

9. To the extent that the terms of the IGA, and the TIC Agreement between the Parties are not amended by the express terms of this IGA Amendment, the IGA and the TIC Agreement shall remain in full force and effect.
10. No waiver of any breach or default under this IGA Amendment shall be a waiver of any other or subsequent breach or default.
11. Invalidity of any specific provisions of this IGA Amendment shall not affect the validity of any other provision of this IGA Amendment or the IGA.
12. This IGA Amendment shall be governed and construed in accordance with the laws of the State of Colorado. Venue for any action arising under this IGA Amendment shall be in Boulder County, Colorado.
13. This IGA Amendment 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 IGA Amendment. Facsimile and other electronic signatures shall be acceptable to and binding upon all Parties.

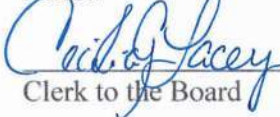
IN WITNESS WHEREOF, the Parties hereto have executed this IGA Amendment which shall be in full force and effect the day and year first written above.

BOULDER COUNTY



Elise Jones, Chair
Board of Boulder County Commissioners

Attest:


Clerk to the Board

ST. VRAIN AND LEFT HAND WATER CONSERVANCY DISTRICT

Dennis Jandrusak
President

Attest:

William Hassellman
Secretary

APPENDIX B
DISTRICT AMENDED AND RESTATED BY-LAWS

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 and federal laws. 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 Bylaws, 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 April, 2015.


President

ATTEST:

William Haselholz
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: April 13, 2015

William Haselbrook
Secretary

APPENDIX C
ENTERPRISE FUND BUDGET REPORTS
2014 AND 2015



ST. VRAIN AND LEFT HAND WATER CONSERVANCY DISTRICT
9595 Nelson Road, Suite 203 • Longmont, CO 80501 • 303-772-060 • www.svlhwcd.org

November 16, 2016

Colorado Water Conservation Board
Finance Section
Attn: Anna Mauss, P.E.
1313 Sherman St., Room 718
Denver, CO 80203

Re: Water Project Loan Program – Water Project Loan Request: Lake 4 Outlet Pipeline Repair

Dear Ms. Mauss:

In August, 2013 (immediately prior to the flood of September, 2013) the St. Vrain and Left Hand Water Conservancy District (District) had embarked on an investigation into what repairs might be needed for the outlet works pipeline from Rock'n WP Lake No. 4 (Lake 4). Operations had suggested that the pipeline (installed as part of the post-aggregate mining reclamation of the property) might be leaking and intercepting groundwater, thus making it difficult if not impossible to accurately quantify Lake 4 releases to St. Vrain Creek for purposes of the District's decreed water augmentation plan (Case No. 02CW334, Water Division 1) and for reservoir administration.

On September 13, 2013 the flood breached the dam at Lake 4 and the District and Boulder County (co-owner of Lake 4) are jointly undertaking repairs to the Lake 4 dam, reservoir, and outlet works structure within the dam with the majority of the repairs eligible for FEMA and Colorado OEM reimbursement funds. The unreimbursable portion of this project was approved for an emergency loan by the Colorado Water Conservation Board (CWCBC). However, the flood did not cause further damage to the outlet works pipeline and therefore any project to repair the pipeline is not eligible for those flood recovery funds or the CWCBC emergency loan.

Therefore, based on an August, 2016 IGA with Boulder County, the District is undertaking repair of the Lake 4 outlet works pipeline with the County agreeing to provide up to \$298,750 toward that effort. The preliminary estimate of the total project cost is \$912,000, leaving an estimated \$613,250 cost to the District (67 percent of the total project cost).

Enclosed with this letter, is the District's application for a CWCBC Water Project Loan for its part of the total project cost. A feasibility study prepared by Deere & Ault Consultants, Inc. in accordance with the CWCBC guidelines is also enclosed.

On behalf of the District, thank you for this opportunity, and please do not hesitate to call me or Mark McLean if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Sean T. Cronin".

Sean T. Cronin
Executive Director

Ms. Anna Mauss
November 16, 2016

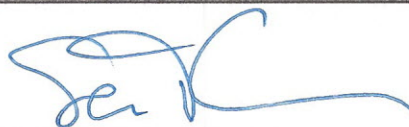
Enclosures

cc: Mark A. McLean – Deere & Ault Consultants, Inc. (w/ enclosures)
Scott E. Holwick – Lyons Gaddis (w/ enclosures)

**COLORADO**Colorado Water
Conservation Board

Department of Natural Resources

Water Project Loan Program

Application Type	
<input type="checkbox"/> Prequalification (Attach 3 years of financial statements)	<input checked="" type="checkbox"/> Loan Approval (Attach Loan Feasibility Study)
Agency/Company Information	
Company / Borrower Name: St. Vrain and Left Hand Water Conservancy District	
Authorized Agent & Title: Sean Cronin, Executive Director	
Address: 9595 Nelson Road, Suite 203 Longmont, CO 80501	
Phone: (303) 772-4060	Email: office@svlhwcd.org
Organization Type: <input type="checkbox"/> Ditch Co, <input checked="" type="checkbox"/> District, <input type="checkbox"/> Municipality <input type="checkbox"/> Other: _____	Incorporated? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
County: Boulder	Number of Shares/Taps: n/a
Water District: District 5, Division 1 (South Platte)	Avg. Water Diverted/Yr <u>n/a</u> acre-feet
Number of Shareholders/Customers Served: n/a	Current Assessment per Share \$ <u>n/a</u> (Ditch Co)
Federal ID Number: 84-6113250	Average monthly water bill \$ <u>n/a</u> (Municipality)
Contact Information	
Project Representative: Sean Cronin, Executive Director	
Phone: (303) 772-4060	Email: sean.cronin@svlhwcd.org
Engineer: Mark A. McLean, PE; Deere & Ault Consultants, Inc. 600 S. Airport Rd, Suite A-203 Longmont, CO 80503	
Phone: (303) 651-1468	Email: mark.mclean@deereault.com
Attorney: Scott Holwick; Lyons Gaddis, P.O. Box 978, Longmont, CO 80502-0978	
Phone: (303) 776-9900	Email: sholwick@lyonsgaddis.com
Project Information	
Project Name: Lake 4 Outlet Pipeline Repair	
Brief Description of Project: (Attach separate sheets if needed)	
Installation of an HDPE liner, access manholes, control valve and measurement structure in the Rock'n WP Lake No. 4 ("Lake 4") outlet works pipeline.	
Project is to repair leakage and facilitate better measurement and inspection/maintenance and to remove portion of pipeline from private property.	
Costs are preliminary estimates and include unlisted items (10%) and contingencies (15%) which are listed below as "Other Costs".	
Project participant Boulder County will provide \$298,750 (33%) toward total project cost.	
General Location: (Attach Map of Area)	
Estimated Engineering Costs: \$146,000 (design and const.)	Estimated Construction Costs: \$613,000
Other Costs (Describe Above): \$153,000	Estimated Total Project Costs: \$912,000
Requested Loan Amount: (Limit 90% of Total Project Costs) \$613,250 (67%)	Requested Loan Term (10, 20, or 30 years): <u>30</u> Years
Project Start Date(s) Design: <u>October 1, 2016</u> Construction: <u>October 1, 2017</u>	
Signature	
 Signature / Title	Return to: Finance Section Attn: Anna Mauss 1313 Sherman St #718 Denver, CO 80203 Ph. 303/866.3449 e-mail: anna.mauss@state.co.us
<u>11/21/16</u> Date	