

OLIGARCHY IRRIGATION COMPANY
OLIGARCHY RESERVOIR NO. 1
DAM OUTLET WORKS REHABILITATION
FEASIBILITY STUDY



Sponsored by the

OLIGARCHY IRRIGATION COMPANY
P.O. Box 1826
Longmont, CO 80502-1826

In conjunction with the

COLORADO WATER CONSERVATION BOARD

June 1, 2015

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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.
Deane 7/1/2015
Signed Date

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TABLE OF CONTENTS

	<u>Page</u>
PROJECT BACKGROUND	1
PROJECT SPONSOR.....	2
PROJECT SERVICE AREA AND FACILITIES	2
HYDROLOGY AND WATER RIGHTS	2
PROJECT DESCRIPTION AND ALTERNATIVES	3
SELECTED ALTERNATIVE.....	4
COST ESTIMATE.....	5
IMPLEMENTATION SCHEDULE.....	5
PERMITTING	5
INSTITUTIONAL CONSIDERATIONS.....	5
FINANCIAL ANALYSIS AND CREDIT WORTHINESS	6
ALTERNATIVE FINANCING CONSIDERATIONS	6
COLLATERAL	7
ECONOMIC ANALYSIS	7
SOCIAL AND PHYSICAL IMPACTS	7
CONCLUSIONS.....	7

List of Tables

Table 1 Estimated Project Cost

List of Figures

Figure 1 Map of Historical Oligarchy Irrigation Company Service Area

List of Appendices

Appendix A Oligarchy Irrigation Company Articles of Incorporation and By Laws

Appendix B Preliminary Plan Drawings

- Figure No.B-1: Vicinity Map
- Figure No. B-2: 1937 Aerial Photo
- Figure No. B-3: Existing Outlet Works Downstream Arch Pipe Photographs
- Figure No. B-4: Existing Outlet Works, Exploratory Boring Location and Summary Logs of Exploratory Borings
- Figure No. B-5: Existing Outlet Works Profile
- Figure No. B-6: Plan and Profile of Proposed Outlet Works

Appendix C Five Years of Financial Statements

Appendix D Oligarchy Shareholder List

Appendix E CWCB Loan Application

**FEASIBILITY STUDY
OLIGARCHY IRRIGATION COMPANY
OLIGARCHY No.1 RESERVOIR
DAM OUTLET WORKS REHABILITATION**

PROJECT BACKGROUND

The Oligarchy No. 1 Reservoir and Dam, also known as Burch Lake, is classified as a Significant Hazard Dam by the SEO. The reservoir is offstream, filled via the Palmerton Ditch. The dam embankment is approximately 18 feet high located on the west side of the reservoir, having a crest elevation of approximately 5,172 feet and a crest width of about 12 feet with upstream and downstream slopes of approximately 2.5:1 (horizontal to vertical). The reservoir stores approximately 1,737 acre-feet of water at the normal water line (NWL) with reportedly 3.1 feet of freeboard.

The existing outlet works provides some historical perspective for the dam and reservoir. The outlet works includes an arched concrete intake pipe, two feet wide by three feet high, extending approximately 330 feet out into the reservoir from an existing upstream concrete intake structure. The concrete intake structure is near the upstream toe of the dam embankment. The intake end of the arch pipe at the low point in the reservoir has a date etched in the concrete of 1910. According to the water rights records, the first storage decree of 1,080 acre-feet for the reservoir was adjudicated in 1890 with an enlargement of 357 and 386 acre-feet dated 1907 and an enlargement dated 1926 for another 306 acre-feet.

The arch pipe and the concrete intake structure were probably constructed for the original dam. There was an old gate and operator stem in the upstream intake structure that due to deterioration through time became inoperable. Sometime after 1910, the dam embankment was probably raised and the present pressurized outlet pipe with downstream control came to be used. The outlet pipe is cast in the downstream wall of the concrete intake structure. There is no upstream gate or operator. With the reservoir at the normal operating level, the upstream concrete intake structure is submerged.

Downstream of the dam embankment there is a square concrete gate vault that houses the in-line gate valve. The outlet pipe, both upstream and downstream of the gate valve, is buried in soil in the bottom of the vault. The downstream in-line gate valve is operable. However, a long "cheater bar" is required to open and close the valve. The future serviceability of the gate valve is probably severely limited.

The cast iron pipe through the dam embankment from the upstream intake structure to the downstream gate valve is reportedly 22 inches in diameter. An internal video inspection of this pipe completed in January 2000 showed a pipe with a corroded interior through the dam embankment to the disk of the in-line gate valve. The actual condition of the pipe other than the obvious severe internal corrosion could not be assessed based on the video.

Downstream of the gate valve, the outlet conduit consists of a 24-inch by 36-inch cast-in-place arch pipe (similar to the upstream arch pipe) discharging into an open ditch that delivers the flows to the Oligarchy Ditch. This is no construction information on the arch pipe downstream of the valve vault, and the arch pipe is buried to the discharge point in the ditch.

Having the pressurized outlet pipe through the dam embankment is risky, especially considering the worn and difficult operating condition of the downstream valve and the corroded nature of the cast iron outlet pipe. Assuming the outlet pipe dated to the 1930s or 40s means the pipe is at least 70+ years old. For reliable service and dam safety, the entire outlet system needs to be updated and reconstructed with a new outlet pipe and an upstream control gate.

The SEO dam inspection performed in August 20, 2012 by John Batka, P.E had a request regarding the outlet works system condition. The request was as follows: *“That given the undesirable condition of having a pressurized conduit through the embankment, difficult access for inspection and difficult operation of the valve, the condition of the outlet structure is rated poor. The company (Oligarchy Irrigation Company) is strongly encouraged to construct a new outlet structure that will allow upstream control of the conduit.”*

PROJECT SPONSOR

The Oligarchy Irrigation Company is a Colorado non-profit mutual irrigation ditch company. There are 97 shareholders and 300 shares of ditch company stock. The Oligarchy Irrigation Company has the power to set annual assessments to be paid by the shareholders, the power to cut off water deliveries to shareholders that fail to pay their assessments, and the power to offer stock for sale to pay back assessments. The Oligarchy Irrigation Company Articles of Incorporation and By Laws are included in **Appendix A**.

PROJECT SERVICE AREA AND FACILITIES

The Oligarchy Reservoir No.1 historically provides irrigation water to approximately 2,700-acre service area in Boulder County. Oligarchy Reservoir No.1 and Dam is located in the Southeast One-Quarter, Northeast One-Quarter of Section 26, Township 3 North, Range 70 West, 6th P.M., Boulder County. The Oligarchy Reservoir No.1 releases its water into the Oligarchy ditch which extends easterly approximately 15 miles. The Oligarchy Ditch water is used by the Oligarchy Irrigation Company shareholders for agricultural use and irrigation of municipal parks, and schools. A map of the historical service area is included in **Figure 1**.

HYDROLOGY AND WATER RIGHTS

Oligarchy Reservoir No. 1 has the following decreed water rights:

Name	Adjudication Date	Appropriation Date	Amount (acre-feet)
Original	3/22/1890	7/2/1889	1,080
First Enlargement	3/13/1907	3/31/1890	357.4
Second Enlargement	3/13/1907	11/14/1892	386
Third Enlargement	6/1/1926	11/1/1911	306
Partial Refill	7/23/1951	12/31/1929	272
Refill (Conditional)	7/23/1951	12/31/1929	1,858

The source of water for the water rights is St. Vrain Creek and the reservoir is filled via the Palmerton Ditch which diverts from St. Vrain Creek near Lyons, Colorado.

According to State of Colorado Division of Water resources records, Oligarchy Reservoir No. 1 has provided an average of 795 acre-feet per year to the Oligarchy Ditch for irrigation use. This does not include water provided to the City of Longmont for use in its municipal treated water system.

PROJECT DESCRIPTION AND ALTERNATIVES

The purpose of this project is to rehabilitate the Oligarchy Reservoir No.1 dam outlet works in response to requests made by the SEO to have an unpressurized outlet pipe with an upstream guard gate and a way to inspect the outlet works system. Five alternatives were considered:

1. No-action
2. Hydraulic gate system using existing concrete intake structure
3. Bridge and gate using existing concrete intake structure
4. Slope stem gate system
5. New outlet works gate vault, outlet works piping, intake and discharge structures

Alternative No. 1 was considered unacceptable as the SEO 2014 Engineer's Inspection Report has requested that the outlet works pipe needs to be unpressurized and have access to inspect the entirety of the outlet works system to improve dam safety. The dam is considered a significant hazard dam by the SEO. If the outlet works fails in the future, significant costs from damages to private and public buildings and infrastructure in the vicinity of the Town of Hygiene is expected, which is not an acceptable risk.

Alternative No. 2 would involve using the existing concrete intake structure and installing a hydraulic gate system inside of it. The gate would be hydraulically operated from a concrete vault on the dam crest. A six-inch carrier pipe would need to be installed from the concrete vault to the concrete intake structure to protect the hydraulic lines. The advantage to this alternative is minimum disturbance to the existing dam. This alternative would allow the outlet works pipe to be unpressurized, but it will not address the condition of the existing outlet works pipe through the dam. The disadvantage to this alternative is that the reservoir would need to be completely dewatered in order to inspect the condition of the outlet works pipe and the concrete intake structure. To install a heavy duty sluice gate may not be suitable since the existing concrete intake structure condition is poor and is not structurally sound. A new concrete intake structure will be needed for this alternative to be feasible. This alternative was considered but deemed unacceptable.

Alternative No. 3 would involve using the existing concrete intake structure and installing a gate system inside of it. A bridge, approximately 80 feet long, would be built out to the concrete intake structure so that the operator could be mounted on the bridge. To support the bridge a series of drilled concrete pier supports would need to be constructed near the concrete intake structure and the mid-point between the dam crest and the concrete intake structure. The drilled concrete piers would need to extend down into the bedrock. The primary advantage of this alternative is a simple sluice gate system and using the existing concrete intake structure. Damages from ice loading may become an issue in the winter months. This alternative would also allow the outlet works pipe to be unpressurized, but it will not address the condition of the existing outlet works pipe through the

dam. The reservoir would need to be completely dewatered in order to inspect the condition of the outlet works pipe and the concrete intake structure. To install a heavy duty sluice gate may not be suitable since the existing concrete intake structure condition is poor and is not structurally sound. A new concrete intake structure will be needed for this alternative to be feasible. This alternative was considered but deemed unacceptable.

Alternative No. 4 would involve excavating into the upstream slope of the dam embankment to steepen and prepare the slope to construct the gate and stem. A concrete structure to support the gate would need to be constructed. Partial removal of the outlet pipe so that the concrete structure can be connected to existing outlet works system. The disadvantages for this alternative would be slope stability issues from excavating of the dam embankment on the upstream slope and not replacing the cast iron pipe through the dam embankment. This alternative would also allow the outlet works pipe to be unpressurized, but it will not address the condition of the existing outlet works pipe through the dam. The reservoir would need to be completely dewatered in order to inspect the condition of the outlet works pipe and the concrete intake structure.

Alternative No. 5 was considered acceptable. This alternative consists of replacing the whole outlet works system with a new intake and discharge structures, a gate vault which will be located on the upstream side of the dam that will also serve as the service spillway. The cast iron pipe will be replaced with PVC restrained pipe and below the dam embankment it will be encased in concrete. A sand filter will be constructed downstream of the gate vault and around the downstream portion of pipe to allow a path for water to drain from the dam embankment. The dam embankment will be excavated and recompacted with a 3:1 (horizontal to vertical) upstream slope and match existing downstream slope. This alternative will solve both the SEO concerns with the outlet works by having a gate in a structure upstream of the dam and also allow a way to inspect the outlet works pipe without draining the whole reservoir. It also provides new pipe to replace the 70+ year old outlet pipe of unknown condition.

SELECTED ALTERNATIVE

Alternative No. 5 is the selected alternative because it remedies all of the SEO requests about the outlet works system. This alternative will allow for an easier maintainable outlet works system than the other alternatives because the whole outlet works system can be inspected with the reservoir full. The gate will be installed in a new structure which is a less risky option than installing the gate in the existing concrete intake structure where the concrete conditions are unsatisfactory. This alternative will also add a service spillway which will allow the ability to control the reservoir surface water level. The outlet works system will be able to handle higher capacities since the existing 22-inch pipe will be replaced with a 24-inch pipe. The unknown condition of the cast iron outlet pipe will be resolved by replacing the outlet works pipe within the dam embankment with a new concrete encased pipe. Excavation of the dam embankment along the outlet works alignment will allow a sand filter to be placed behind the gate structure for drainage around the outlet works system. The downstream gate valve vault and upstream concrete intake structure will be replaced with precast manholes due to the existing unsatisfactory condition of both existing concrete structures. A concrete gate vault will be constructed on the upstream face of the dam with a heavy duty sluice gate and will have the ability to act as a service spillway. The dam embankment will be excavated along the outlet works alignment in order to replace the outlet works piping with a new PVC pipe which is concrete encased within the dam embankment. The dam embankment will be

constructed back to existing conditions after construction of the outlet works is completed. Preliminary level design plans are attached in **Appendix B**.

COST ESTIMATE

The estimated cost for the selected alternative totals \$860,000. A detailed Engineer's Opinion of Costs for the Dam Outlet Work Rehabilitation is attached as **Table 1**. A summary of the cost is presented below:

Task	Cost
Design Engineering	\$105,000
Construction Engineering	\$75,000
Construction	\$522,000
Permitting	\$15,000
Subtotal	\$710,000
Contingency @ 20%	\$143,000
Total	\$860,000

IMPLEMENTATION SCHEDULE

D&A is expected to complete the plans, technical specifications and design report and have it reviewed by the SEO before its submittal to CWCB in the spring of 2015. Once approval to proceed is obtained by the CWCB, construction will begin after the irrigation season in the fall months of 2015 and should be completed before the start of next year's irrigation season in late winter of 2016.

PERMITTING

Oligarchy Irrigation Company is in the process of determining if any county, state, or federal permits that may be required for this project.

INSTITUTIONAL CONSIDERATIONS

Entities that are, or may be, involved in the design, construction, and financing of the project include:

- Oligarchy Irrigation Company; financing and project management
- Colorado Water Conservation Board (CWCB); financing
- Deere & Ault Consultants, Inc., design and construction engineering

The Oligarchy Irrigation Company will be the lead for the financing, design and construction of the project and will be the entity entering into contracts and agreements with the various entities for the service provided by each.

FINANCIAL ANALYSIS AND CREDIT WORTHINESS

The Oligarchy Irrigation Company is applying for a loan from the CWCB for 90 percent of the estimated cost of \$860,000.00. The actual or estimated amounts by entity are given below:

Sources of Funding			
Entity	Grant	Loan	Percent Participation
CWCB	\$0	\$774,000	90%
Oligarchy	\$0	\$86,000	10%
Totals	\$0	\$860,000.00	100%

The Oligarchy Irrigation Company is requesting a 30-year loan from the CWCB. The standard blended agricultural and municipal lending rate would be 2.45 percent, resulting in annual payments of \$36,733.80. The blended lending rate for this loan used the same agricultural and municipal percentages as the emergency loan from 2013, provided by the CWCB. The following table provides a summary of the financial aspects of the project.

Financial Summary	
Project Cost	\$860,000.00
Loan Amount (90% of Project Cost)	\$774,000.00
Number of Shareholders	97
Number of Shares of Stock	300
Current Assessment per Share	\$200

Credit Worthiness: Oligarchy Irrigation Company's only existing debt is the CWCB Emergency Loan No. C150372 with a loan amount of \$1,262,500. Current financial statements show Oligarchy Irrigation Company operating at a net gain.

The Oligarchy Irrigation Company has three primary sources of income including: annual assessments from its shareholders, funds from 100 percent operation cost reimbursements per the carriage agreements with Union Reservoir and the City of Longmont, and revenues from a recreation lease on Oligarchy Reservoir No.1 (Burch Lake). Occasionally, the Company receives funds from crossing fees.

The following are attached as **Appendix C, D, and E** respectively:

- Five years of financial statements (2011, 2012, 2013, 2014, 2015)
- Shareholder list showing owner name, number of shares owned, and identifying each owner as agricultural or municipal
- CWCB Loan Application

ALTERNATIVE FINANCING CONSIDERATIONS

The Oligarchy Irrigation Company has investigated alternative financing sources such as a special assessment per share which would have to be approved by the Oligarchy Irrigation Company.

COLLATERAL

As security for the CWCB loan the Oligarchy Irrigation Company can pledge a revenue stream from assessment income.

ECONOMIC ANALYSIS

Water stored at Oligarchy Reservoir No.1 is used by the Oligarchy agricultural shareholders as the late season water supply necessary to finish irrigating crops after Oligarchy's direct flow water right have gone out-of-priority. Without the stored reservoir water agricultural shareholders would not be able to plant higher value, longer growing season crops and would suffer economically. Stored water is used by the non-agricultural shareholders for irrigation of parks, schools and landscaping. This is more efficient use of the resource than irrigating with treated municipal water. Without the water stored at Oligarchy Reservoir No.1 the more expensive treated water would have to be used for this irrigation. Oligarchy Irrigation Company derives income from a recreational lease of the surface rights to the reservoir. Without a viable outlet works the reservoir would not be allowed to store water and that income would be lost.

SOCIAL AND PHYSICAL IMPACTS

The Oligarchy Reservoir No.1's Dam is classified as a significant hazard dam and a failure of the outlet works system would result in significant property and infrastructure damage downstream of the dam.

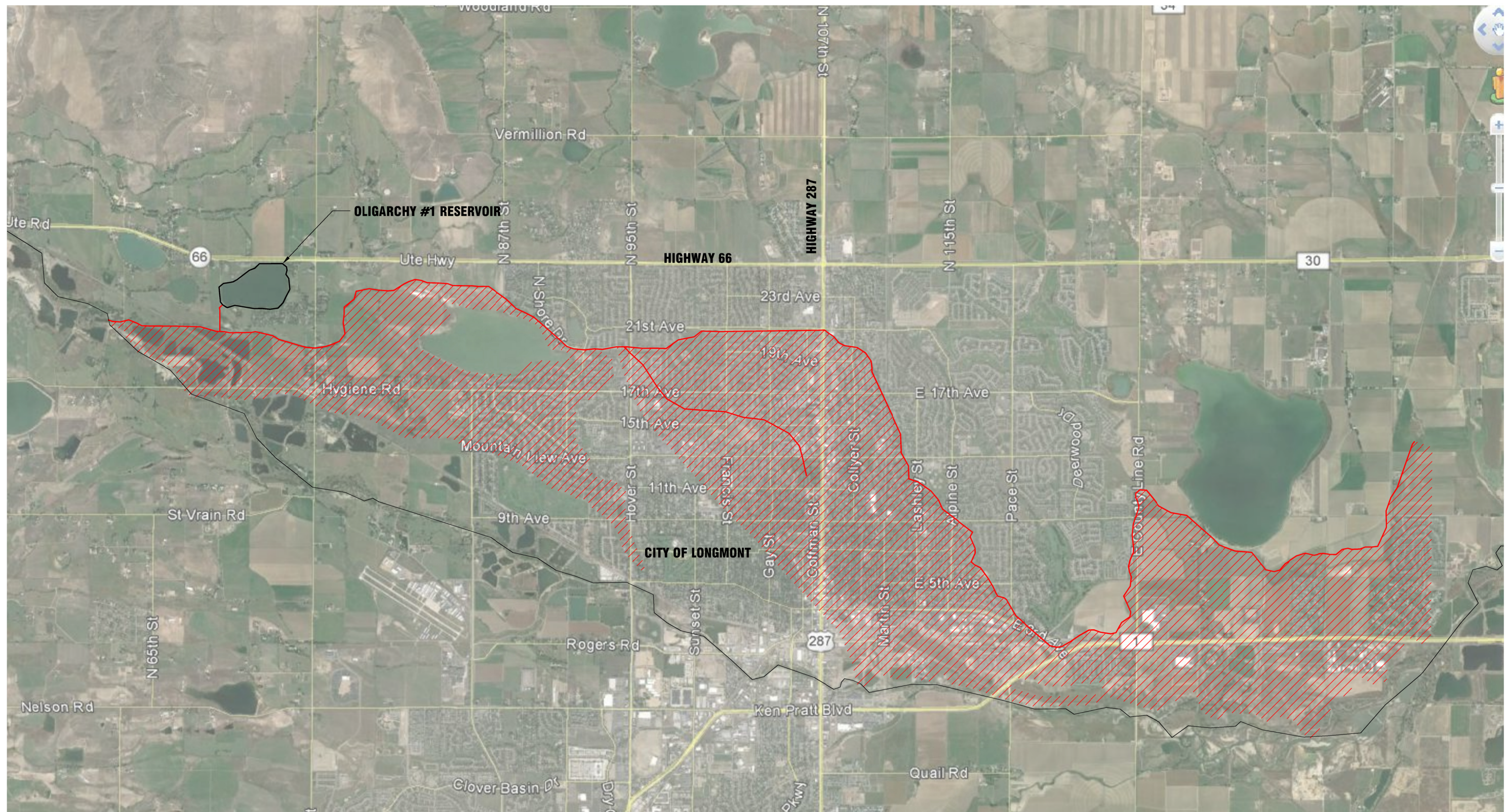
CONCLUSIONS

1. The Oligarchy Irrigation Company is an incorporated entity in the State of Colorado with the ability to enter into a contract with the CWCB for the purpose of obtaining a Construction Fund loan.
2. The Oligarchy Irrigation Company owns the land and no Right-of-Way Easement are required.
3. The project would provide for the continued ability to store water at Oligarchy Reservoir No.1 for delivery of irrigation water to shareholders.
4. The total estimated cost of the project is \$860,000. The Oligarchy Irrigation Company is applying for a \$774,000 loan from the CWCB Construction Fund for the amount not covered by its own reserves.
5. The project is technically and financially feasible and would resolve both requests made by the SEO on rehabilitating the outlet works system.

TABLE 1
Oligarchy Reservoir No. 1 (Burch Lake)
New Dam Outlet Works Vault & Pipe, Downstream Gate Valve Vault & Upstream Intake
ENGINEER'S OPINION OF CONSTRUCTION COST
June 1, 2015

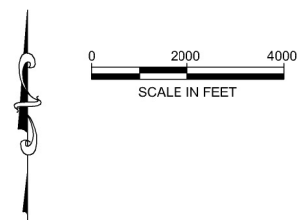
	Construction Item	Quantity	Unit	Cost	Extension
1	Mobilization (10%)	1	LS	\$ 47,000	\$ 47,000
				Subtotal	\$ 47,000
2	Outlet Works				
	i. Outlet Works Vault				
	a. 24" Dia Sluice Gate	1	LS	\$ 30,000	\$ 30,000
	b. Concrete Gate Vault (33 ft tall)	80	CY	\$ 1,000	\$ 80,000
	c. Trash Rack, Ladder, Miscellaneous Metals	1	LS	\$ 25,000	\$ 25,000
	d. Vent Pipe	1	LS	\$ 7,500	\$ 7,500
	e. Excavation and Recomposition of Embankment	6,000	CY	\$ 10	\$ 60,000
	f. Outlet Works Turn Out	1	LS	\$ 5,000	\$ 5,000
	g. Rip Rap & Bedding	50	CY	\$ 100	\$ 5,000
	h. Dewatering	1	LS	\$ 30,000	\$ 30,000
				Subtotal	\$ 243,000
	ii. Upstream Outlet Works Pipe				
	a. 24" Dia Outlet Works Pipe - Restrained	25	LF	\$ 400	\$ 10,000
	b. 24" Dia Concrete Encased Outlet Works Pipe	35	LF	\$ 700	\$ 24,500
	c. Precast Manhole w/ Trashrack	1	LS	\$ 15,000	\$ 15,000
	d. Arch Pipe Connection to Pre-Cast Manhole	1	LS	\$ 2,500	\$ 2,500
	e. Over Excavation and Fill Replacement	100	CY	\$ 17	\$ 1,700
	f. Hydrostatic Test	1	LS	\$ 2,500	\$ 2,500
				Subtotal	\$ 56,000
3	Replace Outlet Works Pipe from New Outlet Works Structure to Downstream Gate Vault				
	a. Remove 22" CIP & Existing Downstream Gate Vault	1	LS	\$ 3,000	\$ 3,000
	b. 24" Dia Outlet Works Pipe - Restrained	30	LF	\$ 400	\$ 12,000
	c. 24" Dia Concrete Encased Pipe	60	LF	\$ 700	\$ 42,000
	d. Excavation and Recomposition of Embankment	2,000	CY	\$ 10	\$ 20,000
	e. Filter Diaphragm	1	LS	\$ 10,000	\$ 10,000
	f. Replace Toe Drain, Cleanouts, and Monitoring Well	1	LS	\$ 8,000	\$ 8,000
	g. Hydrostatic Test	1	LS	\$ 2,500	\$ 2,500
				Subtotal	\$ 98,000
4	Replacing Downstream Gate Valve Vault				
	a. New 72" Dia Pre-Cast Vault	1	LS	\$ 15,000	\$ 15,000
	b. Miscellaneous Metal Work & Riprap	1	LS	\$ 6,000	\$ 6,000
	c. Earthwork	1	LS	\$ 7,500	\$ 7,500
	d. Dewatering	1	LS	\$ 15,000	\$ 15,000
	e. Pipe Connection	1	LS	\$ 4,000	\$ 4,000
				Subtotal	\$ 48,000
5	Miscellaneous				
	a. Seeding & Revegetation	1	LS	\$ 4,500	\$ 4,500
	b. Miscellaneous Riprap & Metal Work	1	LS	\$ 1,500	\$ 1,500
	c. Regrade Road / Replace Crest Road	1	LS	\$ 7,500	\$ 7,500
	d. Bollards	2	EA	\$ 600	\$ 1,200
	e. Surveying, As-Builts & Laboratory Testing	1	LS	\$ 15,000	\$ 15,000
				Subtotal	\$ 29,700
	Total Construction Items (Items 1 through 5)			\$	522,000
				Permitting	\$ 15,000
				Design Engineering	\$ 105,000
				Engineering Services During Construction	\$ 75,000
				Subtotal	\$ 717,000
				Contingency @ 20%	\$ 143,000
	ESTIMATED TOTAL (rounded to nearest \$1,000)			\$	860,000

Thursday, May 28, 2015 4:32:45 PM DRAWING: P:\0147_Oligarchy_Ditch\023_Burch Lake Outlet Work\CAD\DAC Drawings\Service Area.DWG



LEGEND

	OLIGARCHY DITCH
	SERVICE AREA
	SAINT VRAIN RIVER



JOB NO. C147.023.00	
OLIGARCHY 31 DAM AND RESERVOIR	
HISTORICAL OLIGARCHY IRRIGATION COMPANY SERVICE AREA	
DEERE & AULT CONSULTANTS, INC.	FIGURE NO. 1
DATE: 5/28/15	SCALE: AS NOTED

APPENDIX A
OLIGARCHY IRRIGATION COMPANY
ARTICLES OF INCORPORATION AND BY LAWS

ARTICLES OF INCORPORATION

OF

THE OLIGARCHY IRRIGATION COMPANY

KNOW ALL MEN BY THESE PRESENTS, That, we, A. L. GIBSON, E. L. MONTGOMERY and C. E. PUGHE, residents of the State of Colorado, have associated ourselves together as a corporation under the name and style of THE OLIGARCHY IRRIGATION COMPANY for the purpose of becoming a body corporate and politic, under and by virtue of the laws of the State of Colorado, and in accordance with the laws of said state, we do hereby make, execute and acknowledge, in duplicate, this certificate in writing of our intention so to become a body corporate, under and by virtue of said laws.

FIRST:

The corporate name of our said company shall be THE OLIGARCHY IRRIGATION COMPANY.

SECOND:

The objects for which the company is created are as follows:

(a). To acquire and become the owner by purchase, or other lawful means, of all of the decrees, rights, appropriations, franchises, ditches, laterals, reservoirs, and ditch and reservoir rights, and all other corporate property, both real and personal of every nature and description of The Oligarchy Irrigating Ditch Company, a corporation organized and heretofore existing and doing business under and by virtue of the laws of the State of Colorado, and to assume, carry out and perform all contracts and other obligations entered into

in the name of the said last mentioned company, and to have,
~~exercise and enjoy all its rights, privileges and immunities,~~

(b). To acquire and become the owner by purchase, condemnation or other lawful means of lands, reservoirs and reservoir sites in Boulder County, Colorado, and particularly to obtain title to that certain ditch known as the "Oligarchy Ditch" and to that certain reservoir known as the "Oligarchy Reservoir", in said Boulder County, Colorado, together with sufficient contiguous territory to construct, operate and maintain said property and all necessary headgates, weirs, checks, dams, embankments, inlet and outlet ditches, and a margin along said ditch and beyond and above the high water line of said reservoir for right of way to construct, enlarge and maintain the same.

(c). To erect and construct the necessary embankments, cuts, fills and all appliances to maintain said reservoir in a manner suitable for the storage of water and for drawing the same off for irrigation purposes.

(d). To acquire from canal and ditch companies diverting water from St. Vrain Creek, the right to use their headgates, canals and other property as feeders for filling said reservoir, and to construct, operate and maintain other canals and ditches for the purpose of filling said reservoir from said stream, and for the purpose of supplying other water for the use of its stockholders; to appropriate water for storage from the said stream by means of said ditches and canals, also to construct canals and ditches to convey water from said reservoir and to acquire all necessary rights of way therefor, and to construct dams and appurtenances for the

purpose of diverting water to said ditches and reservoirs.

(e). To construct, operate and maintain the whole of said property and to superintend and control the diversion and storage of said water.

(f). To acquire other ditches, reservoirs and reservoir sites for the purpose of supplying water for irrigation purposes to the stockholders of this company.


(g). To acquire other water or other appropriations of water heretofore made by others, if deemed expedient by the board of directors hereinafter constituted, for the purpose of increasing the water supply of its stockholders, and for this purpose it may acquire, hold, own and vote the stock and become a stockholder in other irrigation, reservoir and ditch corporations.

(h). To borrow money on its bond, note, or otherwise, for corporate purposes whenever deemed necessary by its board of directors, and to provide for the payment of the same by assessment of its full capital stock or by deed of trust or mortgage on its corporate property or franchises.

(i). To take, own and convey real estate the same as a natural person, and to purchase, acquire, hold or sell, convey, mortgage and dispose of the same as the board of directors in their judgment may think either necessary or convenient for the purposes for which the company was organized, and to promote its business.

(j). To take stock in telephone companies and to construct telephone lines of its own or assist other therein, for the purpose of facilitating its own business and maintaining and operating its own property.

(k). To take over, operate, carry on and continue



the affairs and business of said The Oligarchy Irrigating Ditch Company giving and granting to the stockholders of said last named company the same rights and privileges in this corporation, pro rata, as they would be entitled to in said The Oligarchy Irrigating Ditch Company had the corporate existence thereof not terminated.

(1). To do any and all business necessary, convenient or incident for the purpose of carrying on the business for which this corporation is organized and to operate its business and affairs as a mutual irrigation company.

THIRD:

The stream and source from which water is taken and diverted is the St. Vrain Creek in said Boulder County, Colorado. Water is diverted at a point or place on the east bank of St. Vrain Creek at a point from whence the quarter corner on the east side of section twenty-seven (27), in township three (3) north, of range seventy (70) west of the 6th P.M., in Boulder County, Colorado, bears south 42° east a distance of five hundred (500) feet. From said headgate water is carried through said Oligarchy Ditch, the line of which ditch as near as may be is as follows: Beginning at said headgate and running thence in a general easterly and southeasterly direction along or near the center of sections twenty-seven (27), twenty-six (26), and twenty-five (25), in township three (3) north, of range seventy (70) west of the 6th P.M., to a point in the northeast quarter (N.E. $\frac{1}{4}$) of said section twenty-five (25), on the McKelvie farm, in said township three (3) north, of range seventy (70) west of the 6th P.M. near the south line of said quarter section, at which there is a large concrete

check or drop on the said ditch, and which is the lower check on said premises, including said check or drop, at which point said Oligarchy Ditch ends and which point is also the head of the Oligarchy Extension Ditch.

FOURTH:

The said "Oligarchy Reservoir", also known as "Oligarchy Reservoir No. 1", is located as near as may be on the northwest quarter (N.W. $\frac{1}{4}$) of section twenty-five (25), and the northeast quarter (N.E. $\frac{1}{4}$) of section twenty-six (26), in said township three (3) north, of range seventy (70) west of the 6th P.M. Water for the filling of said reservoir is diverted from St. Vrain Creek at a point or place which is the headgate of the Palmerton Ditch, a well defined landmark on the north or east bank of said St. Vrain Creek near the center of section twenty (20), in township three (3) north, of range seventy (70) west of the 6th P.M., and the line of which said ditch to said reservoir as near as may be is as follows: From said headgate running easterly across sections twenty (20), twenty-one (21), and twenty-two (22) and easterly and southerly across section twenty-three (23), and southerly across part of the northeast quarter (N.E. $\frac{1}{4}$) of section twenty-six (26), all in township three (3) north, of range seventy (70) west of the 6th P.M., to said reservoir.

FIFTH:

The use to which water is intended to be applied is for irrigation and domestic purposes.

SIXTH:

This corporation shall have a first lien on all the

shares of stock of the registered holder thereof for any and all indebtedness of such stockholder to the corporation, ~~whether due and payable or not due and payable at the time~~ when the corporation shall seek to enforce such lien, and whether such indebtedness to the corporation occurred before or after such stockholder became a stockholder of the company, and such lien shall continue until such indebtedness shall have been paid in full, and such stock shall not be transferred on the books of the corporation until such indebtedness shall be paid.

SEVENTH:

The amount of the capital stock of said company is six thousand (\$6,000.00) dollars, to be divided into three hundred (300) shares, of a par value of twenty (\$20.00) dollars each.

EIGHTH:


The number of directors of said company shall be three (3), and the names of those who shall manage the affairs of said company for the first year of its existence are A. L. GIBSON, E. L. MONTGOMERY and C. E. PUGHE.

NINTH:

The term of the existence of said corporation shall ~~be~~ twenty (20) years from the date of these articles.

TENTH:

The principal office of the company shall be kept in the City of Longmont in the County of Boulder, State of Colorado, and the principal business of the company shall be carried on in the said County of Boulder.



ELEVENTH:

The board of directors shall have power to make such prudential by-laws as they may deem proper for the management of the affairs of the company, not inconsistent with the laws of this state, for the purpose of carrying on all kinds of business within the purposes of such company.

TWELFTH:

At all meetings of the stockholders of the said company cumulative voting shall be allowed.

IN TESTIMONY WHEREOF, We have hereunto set our hands and seals and caused this instrument to be executed, in duplicate, this first day of February , A.D. 1921.

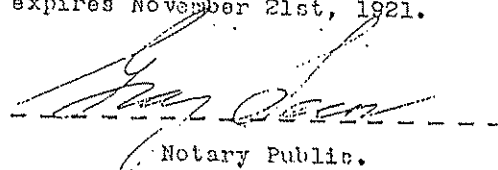
 C. L. Gibson (SEAL)
 E. L. Montgomery (SEAL)
 L. E. Pugh (SEAL)

State of Colorado,)
County of Boulder,) ss.

I, GRAY SECOR, a Notary Public in and for the said Boulder County, in the state aforesaid, do hereby certify that A. L. GIBSON, E. L. MONTGOMERY and C. E. PUGHE, who are personally known to me to be the persons whose names are subscribed to the foregoing articles of incorporation, appeared before me this day in person, and acknowledged that they signed, sealed and delivered the said instrument of writing as their free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and notarial seal this first day of February, A.D. 1921.

My commission expires November 21st, 1921.


Notary Public.

THE OLIGARCHY IRRIGATION COMPANY

Longmont, Colorado.
February 7, 1921.

Minutes of first meeting of Board of Directors of
The Oligarchy Irrigation Company.

The meeting was held at the office of the company
in Longmont, Boulder County, on February 7, 1921.

Present: Directors, A. L. Gibson, E. L. Montgomery
and C. E. Pughe.

On motion, A. L. Gibson was elected chairman and
W. L. McCaslin, secretary.

On motion, duly seconded, the articles of incorpora-
tion as filed in the office of the Secretary of State, and in
the office of the County Clerk of Boulder County were accepted
as the articles of incorporation of this company.

The following by-laws were then submitted. Their
adoption was moved by Director, E. L. Montgomery, seconded
by Director, C. E. Pughe, and the same were unanimously ad-
opted as the by-laws of the company, to-wit:

ARTICLE I.

The officers of this company shall be a president,
vice-president, secretary, treasurer and superintendent. The
president and vice-president shall be elected by the board of
directors at the first meeting after the annual election, and
shall hold office for one year, and until their successors
are chosen. The other officers may be appointed by the board
of directors at any regular meeting, and shall hold office at
the will of the board.

ARTICLE II.

President.

The president shall preside at all meetings of the
company and at all directors' meetings. He shall be the
chief executive officer and shall have a general oversight
over the affairs of the company. He shall sign all orders
upon the treasurer, and all certificates of stock. In the ab-
sence or inability to act of the president, the vice-president
shall perform his duties.

ARTICLE III.

Secretary.

The secretary shall keep a correct record of all
meetings of the company and of the directors. He shall collect

all moneys due the company and shall pay the same over to the treasurer. He shall be the custodian of the books and papers of the company, and shall countersign all orders and certificates of stock.

ARTICLE IV.
Treasurer.

The treasurer shall receive all moneys of the company, and shall keep a correct account of the same and pay them out only on the order of the president, countersigned by the secretary.

ARTICLE V.
Superintendent.

The superintendent shall have charge of the ditch and the repairs thereof; he shall keep the time of the laborers and report the same to the Board of Directors at each regular meeting, or whenever called upon by the president. He shall have control of all headgates and measuring boxes, and of the flow of water into the ditch, and its distribution therefrom.

In all his duties he shall be under the supervision of the Board of Directors.

ARTICLE VI.
Meetings of Stockholders.

The annual meetings of the stockholders shall be held at some suitable place in Longmont, on the third Saturday in January, for the election of directors and for the transaction of such other business proper to come before the meeting.

Whenever a vacancy shall occur in the Board of Directors, the remaining directors shall fill such vacancy by appointment, for the remainder of the year. Special meetings of the stockholders may be called at any time, upon notice given in the manner provided by law for calling annual meetings; the object of such meetings to be specified in the call.

ARTICLE VII.
Meetings of Directors.

The regular meetings of the Board of Directors shall be held on the third Saturday of each month, at the office of the secretary. Special meetings shall be held at any time or place by giving twelve hours notice of the time and place, by the president or secretary, to each member of the Board of Directors. At all meetings of the directors two (2) shall constitute a quorum. Presence of a director or written waiver notice thereof at a meeting shall be considered the same as if proper notice had been given.

ARTICLE VIII.

Shares of stock may be transferred by the holder by surrendering the certificates therefor to the secretary, accompanied by an order of transfer therefor.

ARTICLE IX.
Directors.

It shall be the duty of the directors, by a majority vote, and they are hereby authorized to make all contracts that may be deemed necessary for the carrying on of all kinds of business, within the objects and purposes of the company. They shall make a memorandum of such contracts upon the minutes of the meeting and all such contracts when so made and entered of record shall be signed by the president on behalf of the company, and when so signed shall be binding upon the company.

ARTICLE X
Assessment.

All assessments shall be paid in cash within thirty (30) days after due notice thereof, and in case of failure to pay said assessment the stock shall be sold, or such an amount thereof as may be necessary to pay said tax or indebtedness, together with cost of sale.

Stock shall be sold to highest bidder after having been duly advertised for thirty (30) days. Any money remaining shall be paid over to the party whose stock was sold.

Unpaid assessments shall draw interest at the rate of ten per centum per annum from date due until paid.

No transfer of stock shall be made upon the order of any stockholder from whom assessments are due or who is in any way indebted to the company.

No stockholder shall be entitled to water from the company's irrigation system until all past due assessments are paid.

ARTICLE XI.

These by-laws may be altered, amended or repealed at any meeting of the Board of Directors by a majority vote of all the directors.

ARTICLE XII.

The company adopts as its corporate seal a circular disc with its name around the outer edge and the word "Seal" in the center.

ARTICLE XIII.

To those who now appear as shareholders in the former corporation known as The Oligarchy Irrigating Ditch Company, as said stockholders are now shown to be the owners of its stock by the books of said company, and according to the number of shares therein to which each would now be entitled had the existence of said last named corporation not terminated, and upon presentation and surrender of the certificates of stock issued by the said The Oligarchy Irrigating Ditch Company or by its officers heretofore purporting to act for it, a certificate for stock in this company equivalent in amount to that

7-20-19

represented by the certificate surrendered shall be issued by this company of its stock in lieu thereof. Until the stock shall be otherwise transferred or assigned, and transfers and assignments entered upon the books of this company, the rights of ownership of stock in this company and the rights of pledgees thereof shall be taken, considered and regarded by this company in all respects as if such rights were in The Oligarchy Irrigating Ditch Company and the corporate existence of said last named company had not terminated.

ARTICLE XIV.
Certificates of Stock.

In case of loss of original certificate of stock, either in The Oligarchy Irrigating Ditch Company or in this company, and for which a new or duplicate certificate in this company may be desired, the secretary shall require proof of such loss and upon the giving of an indemnity bond in double the value of the stock, such bond in no case to be less in amount than one thousand dollars, and to be approved by the president or secretary, a new certificate of stock of this company or duplicate certificate in this company may be issued.

ARTICLE XV.
Salary.

The secretary shall receive an annual salary of twenty (\$20.00) dollars, and each member of the board shall be paid the sum of three (\$3.00) dollars for attendance upon any regular or special meeting of the board of directors and a like compensation, per diem, for each day services are rendered by him on behalf of the company.

ARTICLE XVI.

As additional compensation for extra services rendered by him in transferring stock upon the books of the company, either on account of sale, pledge or release, the secretary shall be entitled to charge a fee of ten (\$.10) cents for each share of stock so transferred, which amount shall be at least fifty (\$.50) cents in every case.

After the adoption of the by-laws, election of the following officers provided for in the by-laws was had: A. L. Gibson, President, E. L. Montgomery, Vice-president, and W. L. McCaslin, Secretary and Treasurer.

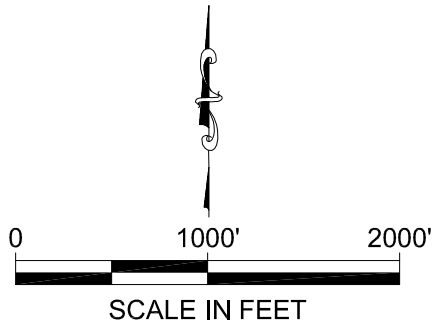
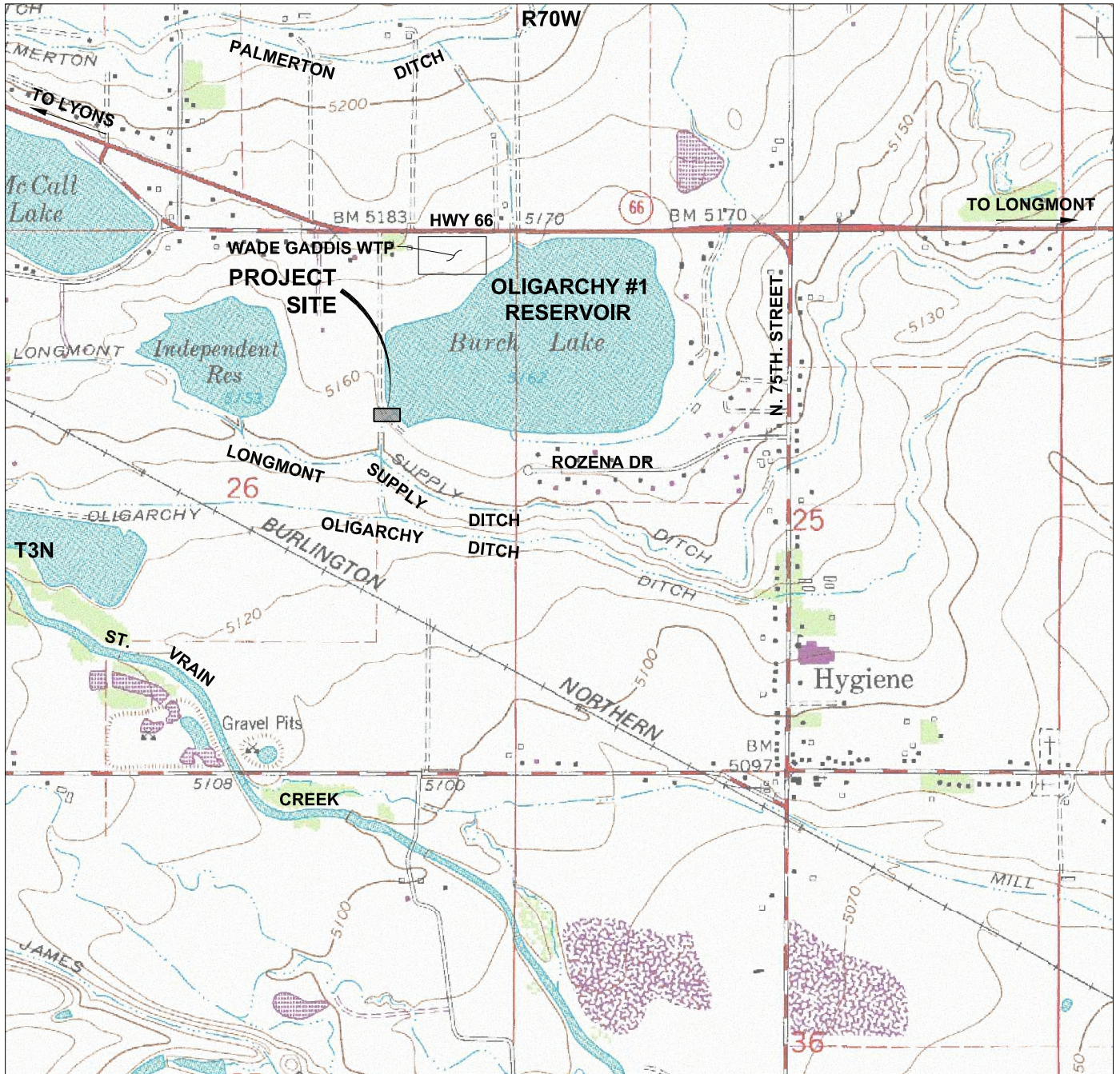
There being no further business to come before the meeting, upon motion, the same was adjourned.

Secretary.

APPENDIX B

PRELIMINARY PLAN DRAWINGS

Monday, June 01, 2015 9:32:33 AM DRAWING: P:\0147 Oligarchy Ditch\023 Burch Lake Outlet Works\CAD Drawings\OLIGARCHY RESERVOIR NO. 1 & DAM FIGURES.DWG



DEERE & AULT
CONSULTANTS, INC.

OLIGARCHY RESERVOIR NO. 1 & DAM

VICINITY MAP

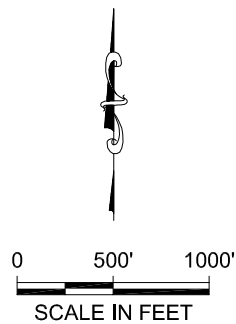
JOB NO. 0147.023.00

SCALE: AS NOTED

FIGURE NO.

B-1

Monday, June 01, 2015 9:33:09 AM DRAWING: P:\0147 Oligarchy Ditch\023 Burch Lake Outlet Works\CAD Drawings\OLIGARCHY RESERVOIR NO. 1 & DAM FIGURES.DWG



DEERE & AULT
CONSULTANTS, INC.

OLIGARCHY RESERVOIR NO. 1 & DAM

1937 AERIAL PHOTO

JOB NO. 0147.023.00

SCALE: AS NOTED

FIGURE NO.

B-2

Monday, June 01, 2015 9:56:41 AM DRAWING: P:\0147 Oligarchy Ditch\023 Burch Lake Outlet Works\CAD\DAC Drawings\OLIGARCHY RESERVOIR NO. 1 & DAM FIGURES.DWG



EXISTING CONCRETE INTAKE STRUCTURE WITH CRACKS
AND IS IN UNSUITABLE CONDITION



EXISTING CAST IRON PIPE THROUGH DAM EMBANKMENT THAT IS VERY CORRODED
AND IN UNSUITABLE CONDITION DURING 2000 SEO DAM INSPECTION

DEERE & AULT
CONSULTANTS, INC.

OLIGARCHY RESERVOIR NO. 1 & DAM

EXISTING OUTLET WORKS PHOTOGRAPHS

JOB NO.

0147.023.00

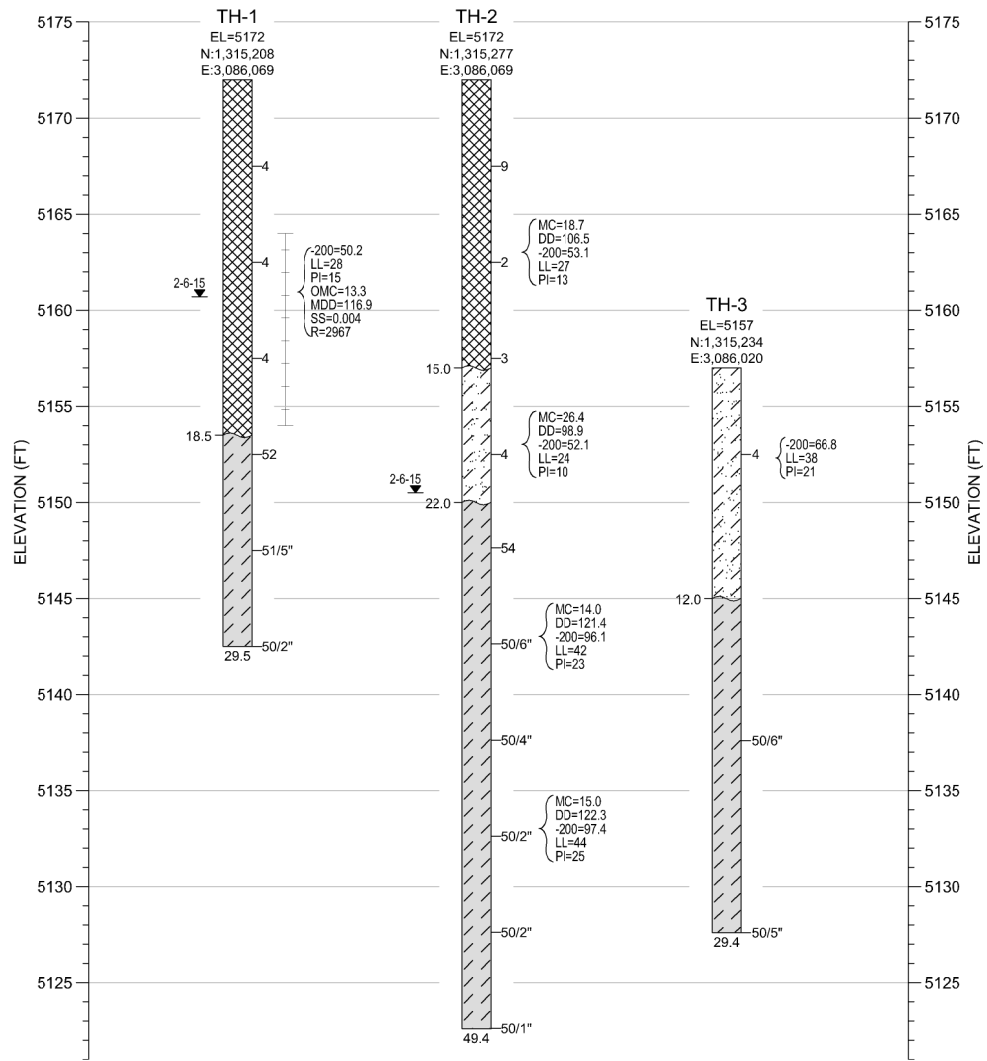
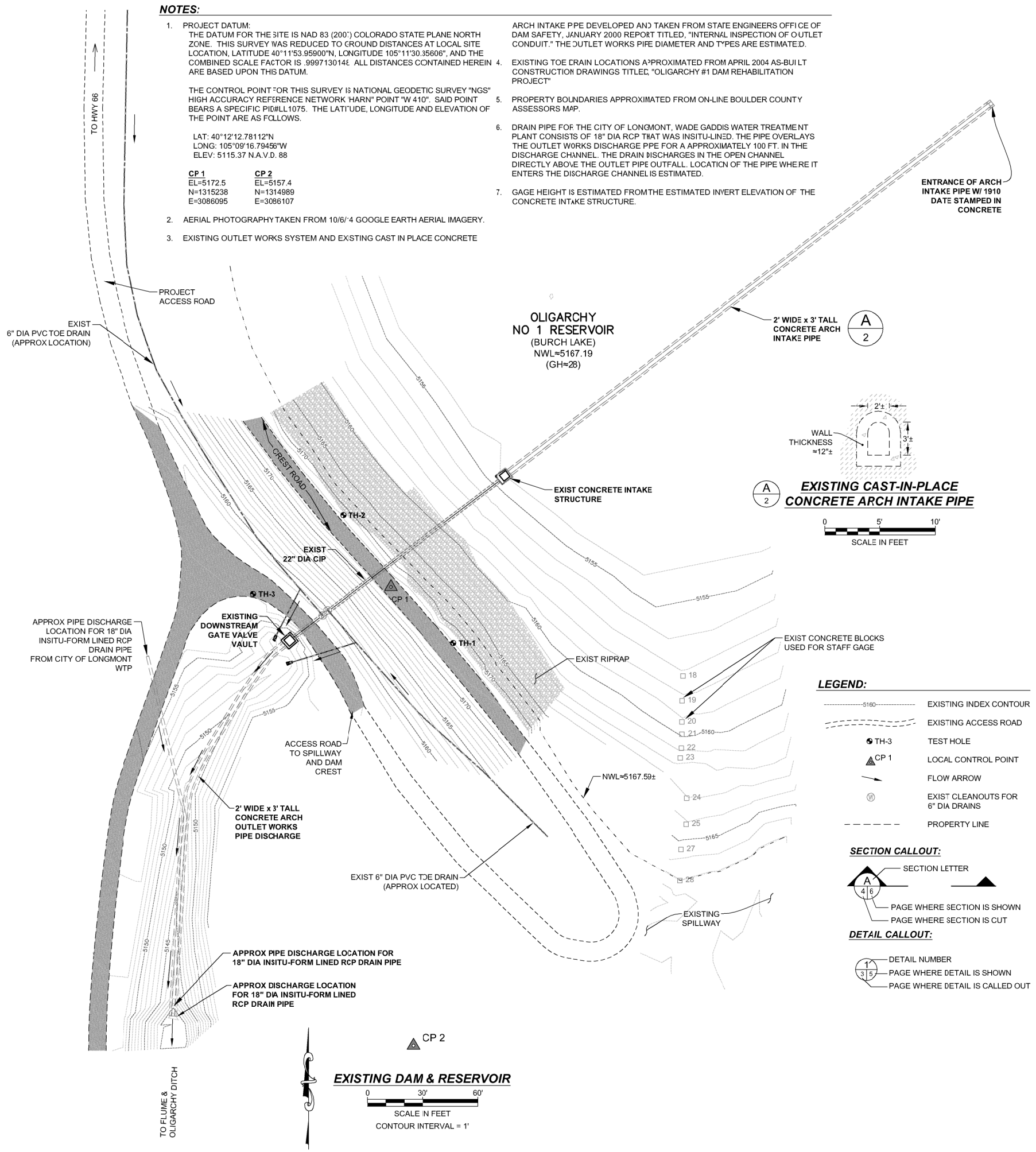
SCALE:

AS NOTED

FIGURE NO.

B-3

Monday, June 01, 2015 9:36:31 AM DRAWING: P:\0147 Oligarchy, Ditch\023 Burch Lake Outlet Works\CAD\Drawings\Burch-Ex_Cond.DWG



- DAM EMBANKMENT FILL:** CLAYEY SAND TO VERY SANDY CLAY, SILTY, FINE GRAINED, MODERATELY PLASTICITY, SLIGHTLY MOIST TO WET, VERY SOFT TO SOFT, VERY LOOSE TO MEDIUM DENSE, BROWNISH GRAY TO GRAY, CALCAREOUS (CL)
- VERY SANDY CLAY:** LOOSE TO MEDIUM DENSE, SILTY, FINE GRAINED, SLIGHTLY MOIST TO WET, LIGHT BROWN TO GRAYISH BROWN, LOW TO MODERATELY PLASTIC, LOCAL PLANT ROOTS (CL)
- BEDROCK, PIERRE SHALE:** HARD TO VERY HARD (SOILS), VERY LOW TO LOW STRENGTH BEDROCK, DRY TO SLIGHTLY MOIST, CLAYEY, SILTY, LOCALLY SANDY, VERY FINE GRAINED, GRAY TO DARK GRAY, LOW TO MODERATELY PLASTIC, PLATY

SUMMARY LOG NOTES:

- EXPLORATORY BORINGS WERE DRILLED 2-6-15 USING A TRUCK-MOUNTED CME 55 DRILL RIG. BORINGS TH-1 & TH-2 WERE DRILLED WITH 8 INCH O.D. HOLLOW STEM AUGERS. BORING TH-3 WAS DRILLED WITH 4.25 INCH SOLID STEM AUGERS.
- THE LOCATIONS OF THE EXPLORATORY BORINGS WERE SURVEYED WITH A SUBMETER ACCURATE GPS. BORING ELEVATIONS WERE APPROXIMATED BASED ON AN TOPOGRAPHIC SURVEY BY SURVEY SYSTEMS ON OCTOBER 22, 2012.
- LINE BETWEEN MATERIALS REPRESENT APPROXIMATE BOUNDARIES BETWEEN TYPES AND TRANSITIONS MAY BE GRADUAL
- GROUNDWATER LEVELS WERE MEASURED AT THE TIME OF DRILLING. GROUNDWATER LEVELS MAY FLUCTUATE SEASONALLY AND ARE IMPACTED BY THE RESERVOIR WATER ELEVATION.
- AN OBSERVATION WELL (PIEZOMETER) WAS CONSTRUCTED IN BORING TH-1.
- LAB TESTING:
MC = NATURAL MOISTURE CONTENT (%)
DD = NATURAL DRY DENSITY (PCF)
-200 = % BY WEIGHT PASSING THE #200 SIEVE (% FINES)
LL = LIQUID LIMIT (%)
PI = PLASTICITY LIMIT (%)
OMC = OPTIMUM MOISTURE CONTENT (%)
MDD = MAXIMUM DRY DENSITY (PCF)
SS = SOLUBLE SULFATE (%)
R = RESISTIVITY (OHM/CM)

Oligarchy Reservoir #1 & Dam
Existing Outlet Works, Exploratory Boring Locations & Summary Logs of Exploratory Borings

DEERE & AULT
CONSULTANTS, INC.

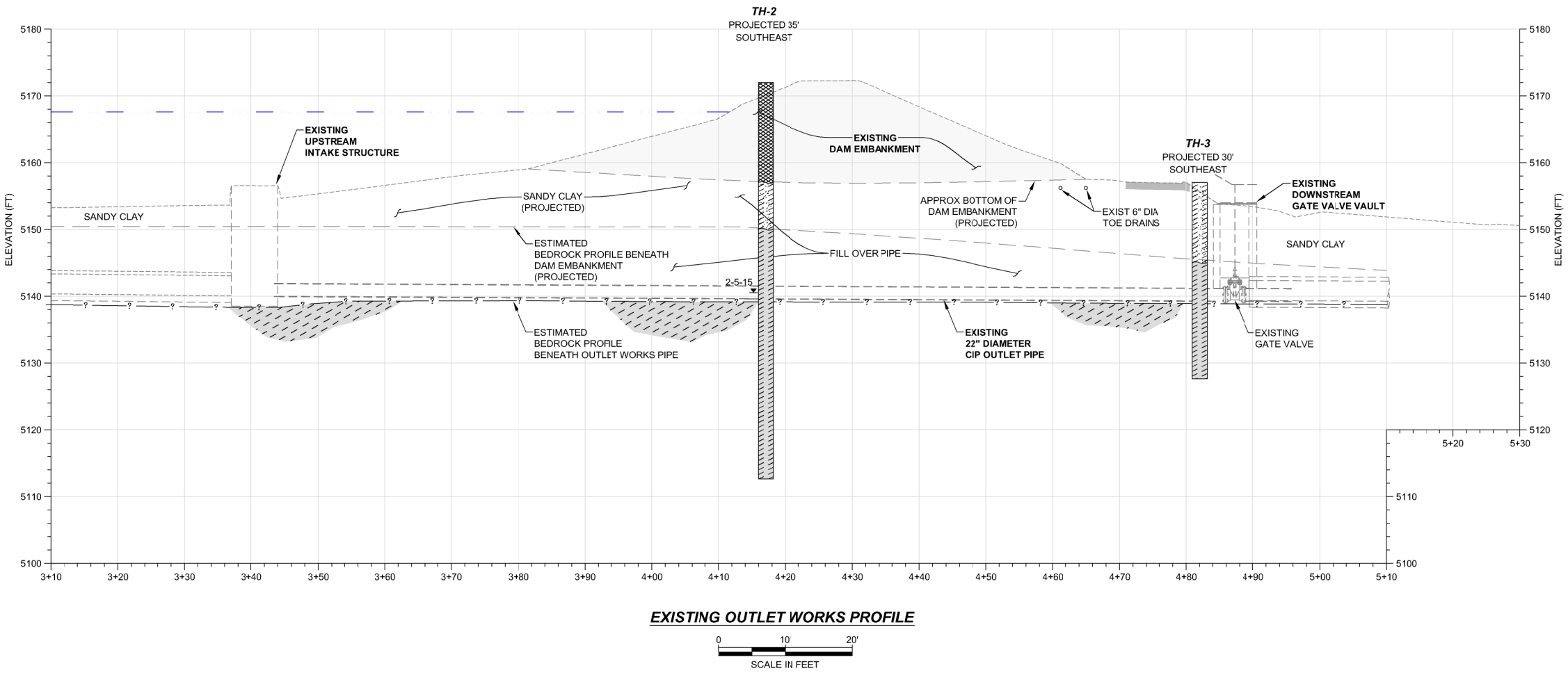
FIGURE NO. B-4

DATE: 6/1/2015

SCALE: AS NOTED

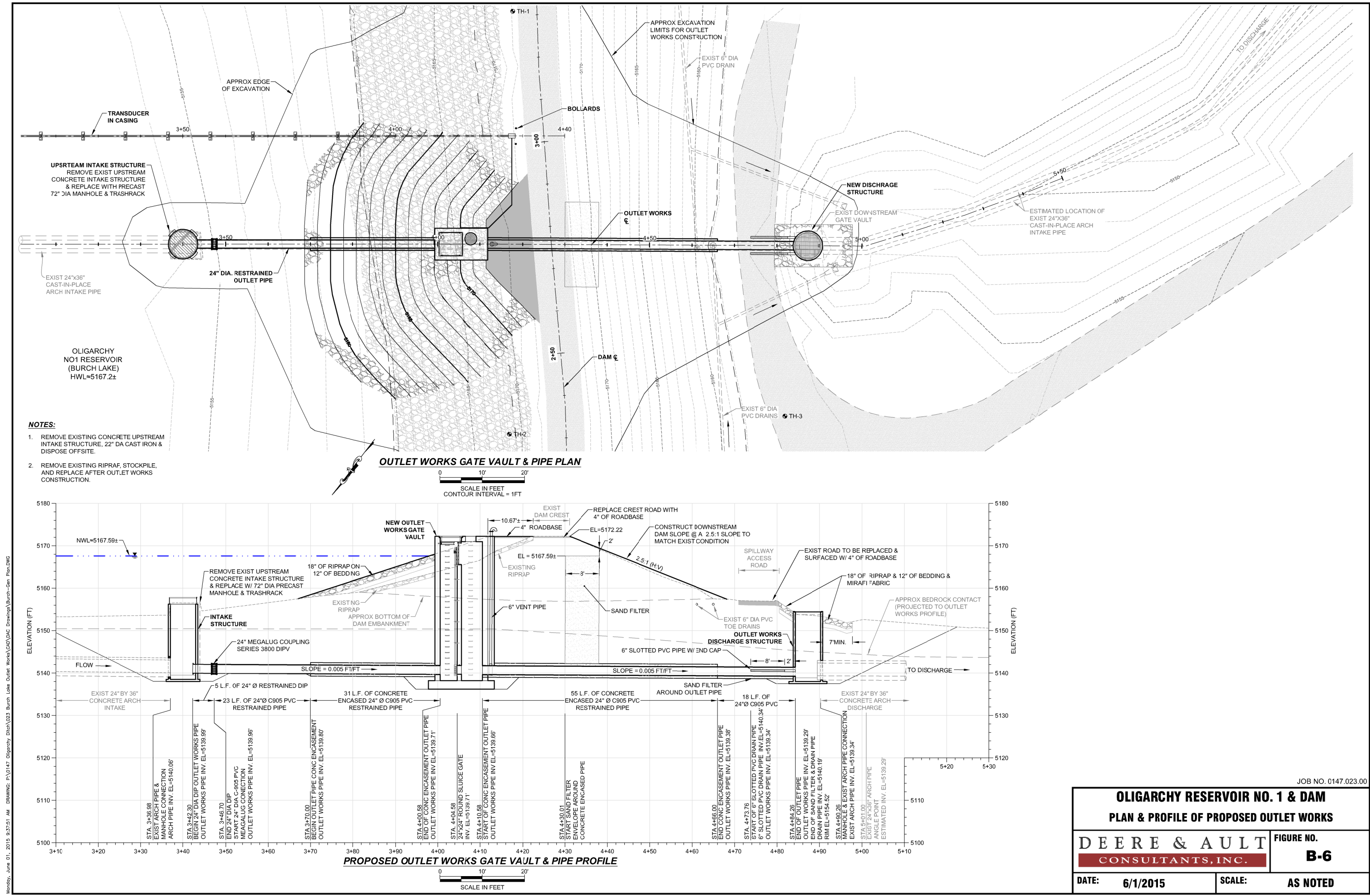
JOB NO. C147.023.00

Monday, June 01, 2015 5:37:19 AM DRAWING: P:\0147 Oligarchy Ditch\023 Burch Lake Outlet Works\CAD\DWG Drawings\Burch-Lake Plan.DWG



JOB NO. 0147.023.00

OLIGARCHY RESERVOIR NO. 1 & DAM	
EXISTING OUTLET WORKS PLAN & PROFILE	
DEERE & AULT CONSULTANTS, INC.	FIGURE NO. B-5
DATE: 6/1/2015	SCALE: AS NOTED



Monday, June 01, 2015 9:37:51 AM DRAWING: P:\0147 Oligarchy, Ditch\023 Burch Lake Outlet Works\CAD\Drawings\Burch-Gen Plan.DWG

OLIGARCHY RESERVOIR NO. 1 & DAM
PLAN & PROFILE OF PROPOSED OUTLET WORKS

DEERE & AULT
CONSULTANTS, INC.

FIGURE NO.
B-6

DATE: 6/1/2015

SCALE: AS NOTED

JOB NO. 0147.023.00

APPENDIX D

OLIGARCHY SHAREHOLDER LIST

Oligarchy Irrigation Company
Customer & Job List
May 29, 2015

Customer	Bill to 2	Bill to 3	Bill to 4	Resale Num
Oligarchy Ditch Co.	6000.00 Total Shares	Each Share = 20.00		
Adam Farm Property, LLC	11684 W.C.R. 5 1/2	Longmont, Co. 80504		120.00 Shares
Anaya, Filano & Ramona	710 Martin St.	Longmont, Co. 80501		1.50 Shares
Aspen Moon Farm, LLC, as Equity Owner	8020 Hygiene Road	Longmont, Co. 80501		30.00 shares
Bankert, Neil & Darla	8023 Hygiene Rd.	Longmont, Co. 80503		11.00 shares
Beck, Darrell L.	P.O. Box 976	Longmont, Co. 80502-0976		8.67 Shares
Bldr. Co. Parks & Op Sp. (1)	(T.A. & Tracy D. Bragg)	5201 St. Vrain Road	Longmont, Co. 80503	30.00 Shares
Bldr. Co. Parks & Op Sp. (2)	(Neil R. Lohr)	5201 St. Vrain Road	Longmont, Co. 80503	105.00 Shares
Butley, Martin S. & Gayle A.	P.O. Box 6095	Longmont, Co. 80501-6095		5.00 Shares
Christopher G. Adrian Qualified Personal	Residential Trust, The	P.O. Box 1205	Holmes Beach, FL 34218	11.98 Shares
Cole, Don R. & Marilyn R.	7826 Hygiene Road	Longmont, Co. 80503		2.00 Shares
Dalbec, Vernetta	50 Ruby Mountain Road	Clancy, MT 59634		2.00 Shares
Darby, James P.	820 Martin Street	Longmont, Co. 80501		1.50 Shares
Davis, R. Lea	P.O. Box 77	Hygiene, Co. 80533		3.75 Shares
Dayton, Nancy L.	7691 Hygiene Rd.	Longmont, Co. 80503		32.25 Shares
Donahue, L.E. & Eileen J.	7794 Hygiene Rd.	Longmont, Co. 80501		2.00 Shares
Dunn, Cliff	P.O. Box 11	Hygiene, Co. 80533		108.60 Shares
Elliott, Stephan K.	800 Martin St.	Longmont, Co. 80501		1.50 shares
Elms Community Association	C/O MSI, LLC	11002 Benton Street	Westminster, Co. 80020-3200	13.33 Shares
Ertl, Jann	460 W.C.R. 26	Longmont, Co. 80504		5.85 shares
Faith Baptist Church of	Longmont	833 - 15th Ave.	Longmont, Co. 80501	5.00 Shares
Fife, Lee & Rosenfeld, Beth A.	7733 Hygiene Rd.	Longmont, Co. 80501		5.00 Shares
Gilbert, Eleanor B., Trust	c/o Michael Beutz, Trustee	8441 West Bowles Avenue, #240	Littleton, Co. 80123	10.00 Shares
Giffels, Donald Carl 2014 Trust	8664 Portico Lane	Longmont, CO 80503		2.50 Shares
Goodloe, Amy T.	8080 Hygiene Road	Longmont, Co. 80503		2.66 Shares
Grace, David M.	P.O. Box 42	Hygiene, Co. 80533		2.50 Shares
Grubbs, Barton J. & Emilia	& Gonzales, Paul A. & Shirley	10051 N.E. Co. Line Rd.	Longmont, Co. 80501	1.69 Shares
Hagen, Jeffrey A. &	Cerame, Margaret M.	0509 Hwy 119	Longmont, Co. 80501	5.00 Shares
Hanson, Sheree A.	8438 Hygiene Road	Longmont, Co. 80503		3.00 Shares
Harbert, Sharon M.	760 Martin Street	Longmont, Co. 80501		1.50 Shares
Hardy, Roy	860 Martin St.	Longmont, Co. 80501		4.50 Shares
Hess, Gene M. & Jessie M.	1716 W. 17th Ave.	Longmont, Co. 80501		.22 Shares
Highland Ditch Company	P.O. Box 649	Mead, Co. 80542-0649		40.00 Shares
Highway 119 Holdings, LLC	Attn: Randy Crane	Church Development Fund, Inc.	2050 Main Street #400	110.60 Shares
Holmes, James F.	601 Loomis Court	Longmont, Co. 80501		93.00 Shares
Holmes, James F. & Virginia A.	601 Loomis Court	Longmont, Co. 80501		113.60 Shares
Horizon Investments LLC	c/o Lyle Dehning	1835 Faith Place	Longmont, Co. 80501	20.41 Shares
Horn, Joseph R.	P.O. Box 25	Hygiene, Co. 80533		10.00 Shares
Hughes, Gerald F. & Edna D.	c/o Darlene Hughes	8109 Hygiene Road	Longmont, Co. 80503	2.00 Shares
Hygiene Methodist Church	P.O. Box 76	Hygiene, Co. 80533		.75 Shares
Johnson, Carl R.	1816 - 17th Ave.	Longmont, Co. 80501		1.50 Shares
Jordan, Michael Gregory & Marie Anne, Jt	1708 - 17th Ave.	Longmont, Co. 80501		.22 Shares
Kelley, David K. & Koepsel Kelley, Cindy	8113 Hygiene Rd.	Longmont, Co. 80501		2.50 Shares
Kevan, Lois & Robert L.	1408 - 17th Ave.	Longmont, Co. 80501		2.00 Shares
Kuepper, William G. III & Janet D.	P.O. Box 500	Hygiene, Co. 80533-0500		5.00 Shares
Lifebridge Christian Church	10345 Ute Highway	Longmont, Co. 80501		49.40 Shares
Longmont Cemetery Assn.	620 11th Ave.	Longmont, Co. 80501		148.80 Shares
Longmont, City of	Attn: Nelson Tipton	1100 So. Sherman	Longmont, Co. 80501	3,586.71 Shares
Lgmt., City (Water Utility Enterprises)	Attn: Nelson Tipton	1100 So. Sherman Street	Longmont, Co. 80501	80.00 Shares
Longs Peak Water District	9875 Vermillion Road	Longmont, Co. 80504		120.00 Shares
Longview Community LLC	RHP Properties, Inc.	11135 Longview	Longmont, Co. 80504	90.00 Shares
Loper, Richard	7800 Hygiene Rd.	Longmont, Co. 80501		2.00 Shares
Lundgren, Sharon A. & Cech, Donald E., Jt	1808 17th Ave.	Longmont, Co. 80501		1.50 Shares
McArthur, Andrew D. & Gayle B.	P.O. Box 224	Hygiene, Co. 80533-0224		.80 Shares
McCormick, Margaret C.	c/o M. McCormick Grant	3416 9 St. NE	Great Falls, MT 59404	.67 Shares
McGill, Edgar W. & Pringle, Billie	7980 Hygiene Rd.	Longmont, Co. 80501		5.34 Shares
McIntire, Victor	730 Martin St.	Longmont, Co. 80501		2.00 Shares
Meadow Vale Farm Homeowners Asso.				110.00 Shares

Oligarchy Irrigation Company
Customer & Job List
May 29, 2015

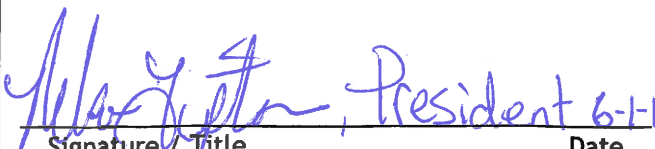
Customer	Bill to 2	Bill to 3	Bill to 4	Resale Num
Mehl, Allan	11898 No. 75th St.	Longmont, Co. 80503		7.50 Shares
Meyer, Sue A.	8171 Hygiene Road	Longmont, Co. 80503		2.50 shares
Minkler, John E. & Strassner, Mary Ellen	11753 North 85th Street	Longmont, Co. 80503		1.00 Shares
Mix, Kevin R. & Helen M.	7215 Hygiene Rd.	Longmont, Co. 80503		5.00 Shares
Nelson, Kent P.	1449 Ajax Way	Longmont, Co. 80504		22.00 Shares
Nelson, William O. & Shelly M.	P.O.Box 44	Hygiene, Co. 80533		3.20 Shares
Newby Farms, LLC	12250 W.C.R. 5	Longmont, Co. 80504		168.00 Shares
Nix, Scott & Sharon	10694 County Road #1	Longmont, Co. 80504		5.04 Shares
O'Brien, Russell	1516 - 17th Avenue	Longmont, Co. 80501		2.33 shares
Oligarchy Company				142.63 Shares
Our Savior's Evangelical	Lutheran Church	1217 - 17th Ave.	Longmont, Co. 80501	1.67 Shares
Outlot, LLC	4845 Pearl East Circle	Suite 101; Box 101	Boulder, Co. 80301	2.50 share
Owen, Donald L.	1508 - 17th Ave.	Longmont, Co. 80501		2.22 Shares
Peterson, James W. & Pamela J.	1526 Westshore Drive	Loveland, Co. 80538		5.00 Shares
Pickering, Edmund F. &	Mary Ann	P.O. Box 29	Hygiene, Co. 80533	8.50 Shares
Roark, Mary Jo	1500 - 17th Ave.	Longmont, Co. 80501		2.70 Shares
St. Vrain & Left Hand Water Cons. Dist.	9595 Nelson Road, Box c	Suite 203	Longmont, Co. 80501	96.33 Shares
Sadar, Roberta	P.O. Box 121	Hygiene, Co. 80533		62.50 Shares
Sadar, Rodney K. & Roberta L.	P.O. Box 121	Hygiene, Co. 80533		63.86 Shares
Sardinia, Jennifer & Michael C.	11761 N. 85th Street	Longmont, Co. 80503		1.00 Shares
School Dist. Re 1-J	Administration Bld.	395 So. Pratt Parkway	Longmont, Co. 80501	30.25 Shares
Shaffer, John M. & E. Glendora	743 Windflower Drive	Longmont, Co. 80501		30.00 Shares
Sherrelwood, Inc.	2400 - 28th St.	Boulder, Co. 80301		10.10 Shares
Stalter, Cece & Theresa Retzliff	8127 Hygiene Road	Longmont, Co. 80503		2.00 Shares
Stennette Trust, Les D., The	Linda Glass, Trustee	2195 W. Quick Draw Way	San Tan Valley, AZ 85142	3.20 Shares
Tebo, Stephen D. D/B/A	Tebo Development Company	c/o Bob Stemwedel	P.O. Box T	4.09 Shares
Three Elephants, LLC	Limited Liability Company	6407 32nd Street, NW	Washington, DC 20015	4.00 shares
Trevethick, Michael P. & Penny	P.O. Box 145	Hygiene, Co. 80533		1.00 Shares
Turner, Darrel	P.O. Box 6618	Longmont, Co. 80501		2.23 Share
Turner, Darrel & Judy K.	P.O. Box 6618	Longmont, Co. 80501		5.12 Shares
Tyler, Terry L.	45 - 069 Kaneohe Bay Drive	Kaneohe, HI 96744-2417		1.33 Shares
Voyage Ventures, LLC, A Co. Lmt'd Liab Co	Limited Liability Company	PO Box 54	Longmont, CO. 80502	36.00 Shares
Weinstein, Amy J.	13850 North 87th Street	Longmont, Co. 80503		1.50 Shares
Welter, David J.	1600 17th Ave.	Longmont, Co. 80501		2.90 Shares
Winterbauer, Arthur E. & Therese M.	1897 Hygiene Road	Longmont, Co. 80503		2.50 Shares
Zephyr Management LLC	1425 Onyx Cr.	Longmont, Co. 80504		30.00 Shares
*Union Reservoir Co.	P.O. Box 445	Greeley, Co. 80632		No Stock
*St. Vrain & Left Hand Water	Conservancy Dist.	9595 Nelson Rd.	Longmont, Co. 80501	no stock

APPENDIX E
CWCB LOAN APPLICATION

**COLORADO**Colorado Water
Conservation Board

Department of Natural Resources

Water Project Loan Program

Application Type	
<input checked="" 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: Oligarchy Irrigation Company	
Authorized Agent & Title: Nelson Tipton, President	
Address: P.O. BOX 1826, LONGMONT, CO. 80502-1826	
Phone: (303) 776-7207	Email: drgnlg@msn.com
Organization Type: <input checked="" type="checkbox"/> Ditch Co, <input 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: 300 Shares
Water District: 5	Avg. Water Diverted/Yr <u>7,966</u> acre-feet
Number of Shareholders/Customers Served: 97 Shareholders	Current Assessment per Share \$ <u>200.00</u> (Ditch Co) Average monthly water bill \$ _____ (Municipality)
Contact Information	
Project Representative: Dan Grant, Secretary/Treasurer	
Phone: (303) 776-7207	Email: dan@dangrantbookkeeping.com
Engineer: Deere and Ault Consultants, Inc. 600 S. Airport Road, Suite A205, Longmont, Co. 80503	
Phone: (303) 651-1468	Email: glen.church@deereault.com
Attorney: Phil Wong, P.O. Box 267, Longmont, Co. 80502-0267	
Phone: (303) 776-3511	Email: pwong8543@aol.com
Project Information	
Project Name: Oligarchy #1 Dam and Reservoir (Burch Lake) Outlet Works Rehabilitation	
Brief Description of Project: (Attach separate sheets if needed)	
The Oligarchy #1 Dam and Reservoir has had a request from the SEO to improve the outlet works for the dam. The request made by the SEO included installing an upstream guard gate so that the outlet works pipe will not be pressurized through the dam embankment.	
The SEO also requested that there needs to be a way to inspect the whole outlet works system. This project consists of replacing the whole outlet works pipe and replacing it with new PVC concrete encased pipe beneath the dam embankment, replacing the wet well and the existing gate valve vault with a new structure constructing a gate vault and a sand filter within the dam embankment, excavation and recompaction of the dam embankment.	
General Location: (Attach Map of Area)	
Other costs is a Contingency of 20%, permitting is included in engineering costs	
Estimated Engineering Costs: \$195,000	Estimated Construction Costs: \$522,000
Other Costs (Describe Above): \$140,000	Estimated Total Project Costs: \$860,000
Requested Loan Amount: (Limit 90% of Total Project Costs) \$756,000	Project Start Date(s) Design: <u>2015</u> Construction: <u>2015-2016</u>
Signature	
 Signature: _____ Title: President Date: 6-1-15	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