

**SOLDIER CANYON WATER TREATMENT AUTHORITY**  
**Monthly Meeting Agenda**  
**4424 Laporte Avenue**  
**Fort Collins, CO 80521**

**Thursday June 8, 2023**

Mission – The Authority delivers the highest quality treated water to its customers with financial responsibility, and following policies established by the Board in a professional, efficient, and ethical manner.

1. Call to Order 10:00 AM
2. Meeting Minutes for May 11, 2023 - **Action Item – Approve Minutes** - “Motion to approve the minutes from the meeting on May 11th, 2023”.
3. Financial Update – Brenda Griffith, **Action Item - Approve Financial Report** - “Motion to approve the SCWTA April 2023 Financial Report”.
4. Manager’s Update – Jacob Stephani.
  - a. Update on proposed Horsetooth Auxiliary Outlet (see PowerPoint)
5. Backup Generator project – Status Update – Jacob Stephani
6. 2022 Financial Audit results from Baker Tilly- Brenda Griffith and Jessica Gonifas.
7. Review of proposed Authority Creation Agreement additions to include new physical facilities – Mark Kempton – Include new 42” HT pipeline, PVP Sedimentation Basin and Screen, PVP Pipeline and additional pipe agreements.
8. Other Business

**The next scheduled Authority Board Meeting is July 13, 2023, at 10:00 a.m.**

**Soldier Canyon Water Treatment Authority**  
**Board Meeting**  
**May 11, 2023**

**Present at the meeting:**

Board Chairman, Eric Reckentine, NWCWD Manager  
Board Vice Chairman, Chris Pletcher, FCLWD Manager  
Board Treasurer, Mike Scheid, ELCO Manager  
Board Director, Jim Borland, FCLWD Director  
Board Director, Rod Rice, ELCO Director  
Mark Kempton, SCWTA Manager  
Richard Raines, SCWTA Water Resources Manager

**The meeting was called to order at 10:07 a.m. by Board Chairman Eric Reckentine.**

**Business Conducted**

**1. Minutes from April 13, 2023, Soldier Canyon Water Authority Board Meetings**

Minutes from the April 13, 2023, meeting were presented. Mike Scheid made a motion to approve the minutes. Chris Pletcher seconded the motion. The motion was unanimously approved.

**2. Financial Update**

Mark Kempton presented and reviewed with the Authority Board monthly billing records, a review of the March 2023 O&M expenses and the financial dashboard. A question was posed if the Board wished to see more detail on credit card purchases. The Board agreed that those purchases are reviewed monthly by the Manager and also during the annual independent financial audit, so no monthly Board review was necessary. Chris Pletcher made a motion to approve the financial reports. Rod Rice seconded the motion. The motion was unanimously approved.

**3. Managers Update**

Mark Kempton updated the Board on plant flows and water quality, operations, and maintenance, PVP and River flows, and projects going on in the plant and at the PVP.

**4. Approval of the Munroe Ditch Water Loss Study by Ayres Associates – Richard Raines**

The Board was given a copy of the Proposal from Ayres Associates for a continuation of a Water Loss Study on the Munroe Canal near the PVP. Rod Rice made a motion to approve the Proposal. Jim Borland seconded the motion. The motion was unanimously approved.

**5. Approval of Materials Procurement from Leopold for Filters 5-8 – Mark Kempton**

The Board was given a copy of the Proposal from Leopold to acquire filter media, underdrains, and piping for the Filters 5-8 Rehabilitation Project. Rod Rice made a motion to approve the Proposal. Jim Borland seconded the motion. The motion was unanimously approved.

**6. Discussion item – Mark Kempton – Stantec Draft Expansion Capacity Feasibility Study –**

Mark Kempton posed a question to the Board if they wished to follow up on any of the study's recommendations for expanding Plant capacity or need more time to consider? The Board wished to proceed with a scope and budget request from Stantec to further investigate and get to CDPHE approval of rating the Plant to 67 MGD or possibly to 72 MGD. Rod Rice made a motion to approve the Proposal. Chris Pletcher seconded the motion. The motion was unanimously approved.

**7. Review of proposed Authority Creation Agreement additions to include new physical facilities – Mark Kempton – Include new 42" HT Pipeline, PVP Sedimentation Basin and Screen, PVP Pipeline**

Mark Kempton shared updated tables detailing existing and proposed percent ownerships in the Pleasant Valley Pipeline and the Horsetooth Line. These percent ownerships are part of a proposed future amendment to the Authority Creation Agreement to include ownership of the PVP Sed Basin and Screen. The Districts will continue to search their records to locate agreements or financial data that are needed to finalize the Creation Agreement Amendments.

**8. Other Business**

An email from Brian Hood at CSU regarding possible land purchase was distributed to the Board via email on 5/9/2023. The email is included as part of these minutes. A discussion on this topic resulted in deciding to wait for the completion of the Soldier Canyon Water Treatment Authority Master Plan to follow up on a request to purchase more land to the north from CSU.

Mark Kempton asked Mike Scheid and Eric Reckentine if they wished to keep individual chlorine dosing equipment in place for their respective districts as part of a planned rehabilitation of the Plant's chlorine feed system. They both said yes, they would prefer the chlorine systems to be kept in place.

**9. Adjournment**

Mike Scheid made a motion to adjourn the meeting. Chris Pletcher seconded the motion. The motion was unanimously approved, and the meeting was adjourned at 10:41 a.m.

Authority Board Minutes  
May 11, 2023  
Page 3

Respectfully submitted,

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Mark Kempton – Board Secretary, Soldier Canyon Water Treatment Authority

Approved by Authority Board

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Eric Reckentine - Board Chairman, Soldier Canyon Water Treatment Authority

Attachment: CSU Land Purchase email from 5/9/23

**From:** [Mark Kempton](#)  
**To:** [cpletcher@fclwd.com](mailto:cpletcher@fclwd.com); [ericr@nwcwd.org](mailto:ericr@nwcwd.org); [Jim Borland \(jim@jimborland.com\)](mailto:Jim.Borland(jim@jimborland.com)); [mikes@elcowater.org](mailto:mikes@elcowater.org); [Rodney Rice](#); [Scott Cockroft](#)  
**Subject:** FW: CPW Foothills  
**Date:** Tuesday, May 9, 2023 9:54:00 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image004.png](#)

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Hello all,

Please see below in yellow for an update from Brain Hood with CSU on the CSU owned/CPW leased land to the north of the Plant.

We can discuss more on Thursday if you wish.

Mark

**Mark Kempton, P.E, CWP**

Manager, Soldier Canyon Water  
Treatment Authority  
4424 LaPorte Ave.  
Fort Collins, CO 80521  
O: (970) 482-3143 | C: (970) 286-9533  
[mkempton@soldiercanyon.com](mailto:mkempton@soldiercanyon.com)

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**From:** Hood,Brian <[Brian.Hood@colostate.edu](mailto:Brian.Hood@colostate.edu)>  
**Sent:** Tuesday, May 9, 2023 9:47 AM  
**To:** Mark Kempton <[mkempton@soldiercanyon.com](mailto:mkempton@soldiercanyon.com)>  
**Subject:** FW: CPW Foothills

Mark,

Here is some of the latest information regarding the CSU land north of you. I would be happy to discuss it further with you. Are we still on for a site visit tomorrow? If so, where do we meet you?

Thanks,



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**From:** Hansen,David <[David.Hansen@colostate.edu](mailto:David.Hansen@colostate.edu)>  
**Sent:** Tuesday, May 9, 2023 8:37 AM

**To:** Hood,Brian <[Brian.Hood@colostate.edu](mailto:Brian.Hood@colostate.edu)>  
**Cc:** Duttgupta,Gargi <[Gargi.Duttgupta@colostate.edu](mailto:Gargi.Duttgupta@colostate.edu)>  
**Subject:** RE: CPW Foothills

Brian,

We are not at a point to approach CPW about their lease and anticipate we are at least 18-24 months from any action regarding it. CPW is fully aware that their ground is in the path of Soldier Canyon's expansion and are actively working to determine their future needs. I believe two things need to transpire before there are any conversations:

1. Kickoff of Soldier Canyon site planning which will inform how much ground they actually are going to need to occupy as it may be less than their master plan represents.
2. CPW will be initiating a feasibility study on their ground east of Wellington in the next fiscal year, this will determine their next steps. They have suggested to Gargi and I that they may want to keep their operations side of the house (+/-15 Ac.) at the Foothills Campus and/or as much ground as we are able to maintain after Soldier Canyon advances their plans.

Two additional actions were also identified for STRATA and FM to consider that might assist CPW should their feasibility study result in an unacceptable location east of Wellington.

1. It was suggested in our last monthly STRATA meeting that you would look to see if the Maxwell Ranch might be a viable option to provide some ground to CPW.
2. It was also suggested that FM might approach the city Natural Areas leadership team to see if there is an option that would allow them to occupy some ground immediately north of their current lease, this conversation has not occurred. CPW represented that their leadership team had already had a conversation with the city to this regard and were told no.

All of this said, we are in a holding pattern for the time being.

Thanks,

David Hansen (he/him)  
University Landscape Architect  
Colorado State University Facilities Management  
p: 970.567.0031

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**From:** Hood,Brian <[Brian.Hood@colostate.edu](mailto:Brian.Hood@colostate.edu)>  
**Sent:** Monday, May 8, 2023 4:46 PM  
**To:** Hansen,David <[David.Hansen@colostate.edu](mailto:David.Hansen@colostate.edu)>  
**Subject:** CPW Foothills

David,

As I understand it, CSU has determined that they will not be renewing the CPW lease at Foothills, is that correct? If so, I need to get something in writing before I send a formal letter to CPW notifying them their lease will expire in nine years or so.

Thanks,

A handwritten signature in blue ink that reads "Brian". The signature is written in a cursive style with a large, stylized initial "B".

**Brian Hood**

Senior Real Estate Specialist

Office | 970.491.6673

[csustrata.org](http://csustrata.org)

**Soldier Canyon Water Treatment Authority**  
**Custom Transaction Detail Report**

May 2023

Date	Num	Name	Memo	Amount
<b>May 23</b>				
05/01/2023	Auto pay	Silver Peaks Accounting	May A/P - Monthly Fee	-750.00
05/10/2023	6005	4Rivers Equipment	Apr. A/P - Tractor repair/service	-4,141.87
05/10/2023	6006	A-Z Safety Supply	Apr. A/P - First Aid Sup./Safety	-874.92
05/10/2023	6007	A.R.C. Incorporated	Apr. A/P - Cleaning Services	-300.00
05/10/2023	6008	A1 Organics	Apr. A/P - Sludge	-12,471.60
05/10/2023	6009	Airgas	Apr. A/P - Breathing Air	-64.23
05/10/2023	6010	American Datapath	Apr. A/P - Fiber work	-1,095.00
05/10/2023	Auto pay	American Heritage Life Ins. Co.	Apr. A/P - Voluntary Ins.	-179.21
05/10/2023	6011	Capital Business Systems	Apr. A/P - Lab Copier, shop printer	-28.74
05/10/2023	6012	CEBT	Apr. A/P - May Ins.	-25,118.05
05/10/2023	6013	CenturyLink2	Apr. A/P - Phones	-66.03
05/10/2023	6014	Chemtrade Chemicals US LLC	Apr. A/P - Alum	-6,886.34
05/10/2023	6015	Colo Dept of Labor	Apr. A/P - Annual Boiler Inspection	-90.00
05/10/2023	6016	Ditesco	R & R - Filters 1-4 & 5-8	-7,504.98
05/10/2023	6017	DPC Industries, Inc.	Apr. A/P - chlorine	-8,573.60
05/10/2023	6018	FEDEX	Shipping	-29.74
05/10/2023	6019	Ferguson	Apr. A/P - maint. sup	-88.55
05/10/2023	6020	Frank Parts Company	Apr. A/P - Maint. Sup.	-19.04
05/10/2023	6021	Grainger	Apr. A/P - Maint. Sup.	-2,792.72
05/10/2023	6022	Greystone Technology	IT Mgmt, email, backups	-3,071.10
05/10/2023	6023	HACH Company	Apr. A/P - Lab Sup.	-5,286.74
05/10/2023	6024	Harcros Chemicals Inc	Soda Ash	-18,323.42
05/10/2023	6025	Hillyard - Denver	Apr. A/P - Janitorial Sup.	-643.63
05/10/2023	Pd online	Home Depot	Apr. A/P - maint. supplies	-2,249.81
05/10/2023	6026	Jax Inc. Mercantile Company	Apr. A/P - Uniforms, Maint. Sup.	-277.05
05/10/2023	6027	Laporte Hardware	Apr. A/P - Maint. Sup.	-233.91
05/10/2023	6028	Larimer County Solid Waste Mgmt	Apr. A/P - Plant clean up	-284.90
05/10/2023	6029	Logical Systems, LLC	R & R - PVP Control Imp, PLC Upgrade	-54,855.00
05/10/2023	6030	Mallory Safety & Supply LLC	Apr. A/P - Safety	-742.86
05/10/2023	6031	Matsuda Enterprises	Apr A/P - sludge hauling	-8,520.00



**Soldier Canyon Water Treatment Authority  
Custom Transaction Detail Report**

May 2023

Date	Num	Name	Memo	Amount
05/10/2023	6032	Municipal Treatment Equipment, Inc.	Grunfos pump, maint. Sup.	-8,153.96
05/10/2023	6033	Norit Americas Inc.	Apr. A/P - PAC	-10,226.00
05/10/2023	6034	ONEPOINTSUNC	Apr. A/P - Phones	-220.55
05/10/2023	Pd online	Phillips 66 CO/SYNCB	Apr. - Fuel	-239.26
05/10/2023	6035	PT Hose & Bearing	Apr. A/P - Maint. Sup.	-145.09
05/10/2023	6036	Ryan Herco	Maint. Sup.	-262.47
05/10/2023	6037	Sam's Club	Apr. A/P - Misc Admin/Ops Sup., TVs for control ro	-1,201.95
05/10/2023	6038	SGS North America, Inc.	Apr. A/P - Samples	-130.98
05/10/2023	Pd online	Shell	Apr. A/P - Fuel	-725.52
05/10/2023	6039	Special District Association	Apr. A/P - Leadership Academy J. Stephani	-225.00
05/10/2023	6040	Ted D. Miller Associates Inc.	Apr. A/P - Lab Sup	-2,641.75
05/10/2023	6041	US Bank	Mar. A/P - Copier Lease	-642.75
05/10/2023	6042	US Standard Products	Apr. A/P - Safety Sup, Shop Sup.	-565.07
05/10/2023	6043	USALCO	Apr. A/P - CC 2000	-9,554.50
05/10/2023	6044	Veolia Analytical Instruments	Apr. A/P - Lab Sup	-651.60
05/10/2023	6045	Verizon Wireless	Apr. A/P - Cell phones	-503.20
05/10/2023	6046	Wal-Mart	Misc. sup.	-36.77
05/10/2023	Auto pay	Waste Management of No. Colo	Apr. A/P - Trash/Recycling	-650.22
05/10/2023	6047	Western States Fire Protection	Apr. A/P - Annual Fire Sprinkler Inspection	-810.00
05/10/2023	Pd online	Xcel Energy	Apr. A/P - Electric & Gas	-4,432.42
05/10/2023	6048	Larimer County Canal NO. 2 Irrigating C	Apr. A/P - Overland Ponds Modifications	-5,450.00
05/10/2023	6049	Lyons Gaddis Attorneys & Counselors	Apr. A/P - General	-1,373.23
05/15/2023	6050	First National Bank	Apr. A/P - Education, Misc., Safety, Maint.	-977.50
05/15/2023	6051	First National Bank Omaha	Apr. A/P - Misc., Office Sup.	-84.40
05/15/2023	6052	Stantec Consulting, Inc.	Apr. A/P - Expansion Feasibility Study	-4,884.00
05/15/2023	6053	First National Bank	Apr. A/P - Education, Off. Sup., Maint., Uniforms	-658.75
05/16/2023	Auto pay	BASIC Benefits	HRA Accts. Monthly fee	-50.00
05/18/2023	6059	Ditesco	R & R - Filters 5-8 Improvements	-4,465.45
05/18/2023	6060	Logical Systems, LLC	R&R-PVP Control Imp, PLC Upgrade, Filters 5-8	-26,006.91
05/18/2023	6061	Restruction	Apr. A/P - Crack injection on front of Plant	-27,978.75
05/22/2023	6063	Petty Cash	May A/P - Board Mtgs., Shop Sup.	-214.36

## Soldier Canyon Water Treatment Authority Custom Transaction Detail Report

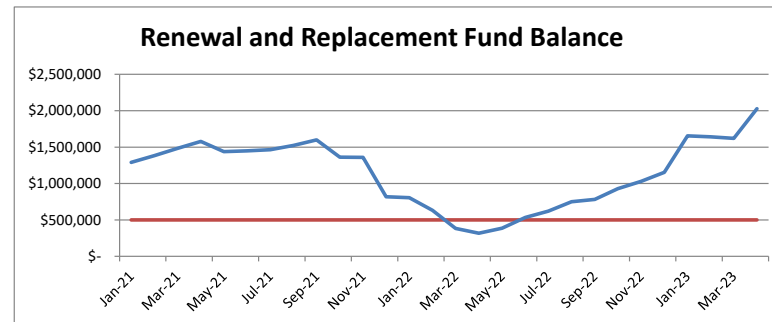
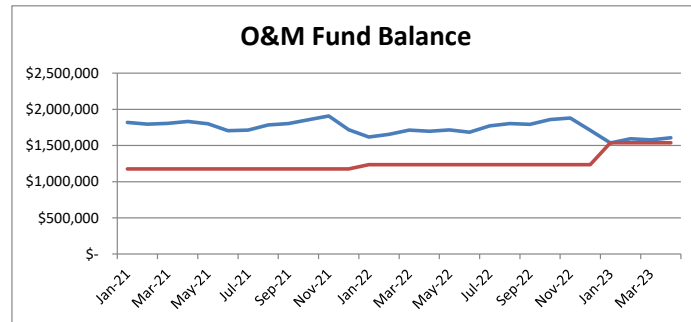
May 2023

Date	Num	Name	Memo	Amount
05/22/2023	6065	Goltz Asphalt Company	Apr. A/P - Crack seal driveway	-27,394.43
05/23/2023	6066	Harcros Chemicals Inc	Apr. A/P - Soda Ash	-10,208.70
05/25/2023	Pd online	Xcel Energy	Apr. A/P - Electric & Gas	-5,888.65
<b>May 23</b>				<b>-323,217.23</b>

- Plant expenses that aren't normal monthly expenses
- Chemicals
- Renewal & Replacement
- Water Resources

	Months												YTD Total	Budget	% To Budget
	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23			
<b>Revenue Total</b>	968,282	463,025	464,463	971,141	-	-	-	-	-	-	-	-	2,866,911	8,154,204	35.16%
<i>Fixed O&amp;M Revenue Total</i>	400,936	400,936	400,936	400,936									1,603,744	4,811,235	33.33%
<i>Variable O&amp;M Revenue Total</i>	61,794	55,287	58,635	64,235									239,951	1,338,719	17.92%
<i>Renewal and Replacement Revenue Total</i>	500,999	-	-	500,999									1,001,998	2,004,000	50.00%
<i>Misc./Interest Income</i>	4,553.00	6,802.00	4,892.27	4,971									21,218	250	84.87308
<b>Expenses Total</b>	676,279	418,830	501,775	533,725	-	-	-	-	-	-	-	-	2,130,609	7,850,549	27.14%
<i>Fixed O&amp;M Expenses</i>	556,678	379,324	384,955	366,799									1,687,756	4,811,235	35.08%
<i>Variable O&amp;M Expenses</i>	119,601	25,161	95,753	74,094									314,609	1,035,314	30.39%
<i>Energy Expenses</i>	17,248	17,447	14,084	10,321									59,100	105,969	55.77%
<i>Chemical Expenses</i>	102,353	7,714	81,669	63,773									255,509	1,232,750	20.73%
<i>Renewal and Replacement Expenses</i>	-	14,345	21,067	92,832									128,244	2,004,000	6.40%

**Reserves**



Emergency Reserve Fund Balance end of April  
 Minimum Emergency Reserve Target  
 +/- Target

1,606,731
1,537,489
69,242

2,027,202
500,000
1,527,202

# Soldier Canyon Water Treatment Authority

## ***Soldier Canyon Water Treatment Authority Board Meeting – Plant Manager's Update***

***Thursday, June 8, 2023***

- River turbidities continue to be periodically very high, in excess of 100 ntu. We bring the Plant on when we can, but we are forced off the river occasionally with high turbidities.
- Coordinated with Stantec on expanding the Plant rating to 67 or 72 MGD. Stantec is working on a scope of work, budget, and schedule.
- Horsetooth Reservoir Auxiliary (Redundant) Outlet by Northern Water
  - Northern presented 3 alternatives for redundancy.
  - Ranged in cost from \$31M to \$46M.
  - Northern looking into possible Federal funding options.
  - Consensus to follow up on Option 1 – New Soldier Canyon Dam Outlet.
- HDR performed data gathering interviews with each District and Plant staff as part of the 20-Year Master plan.



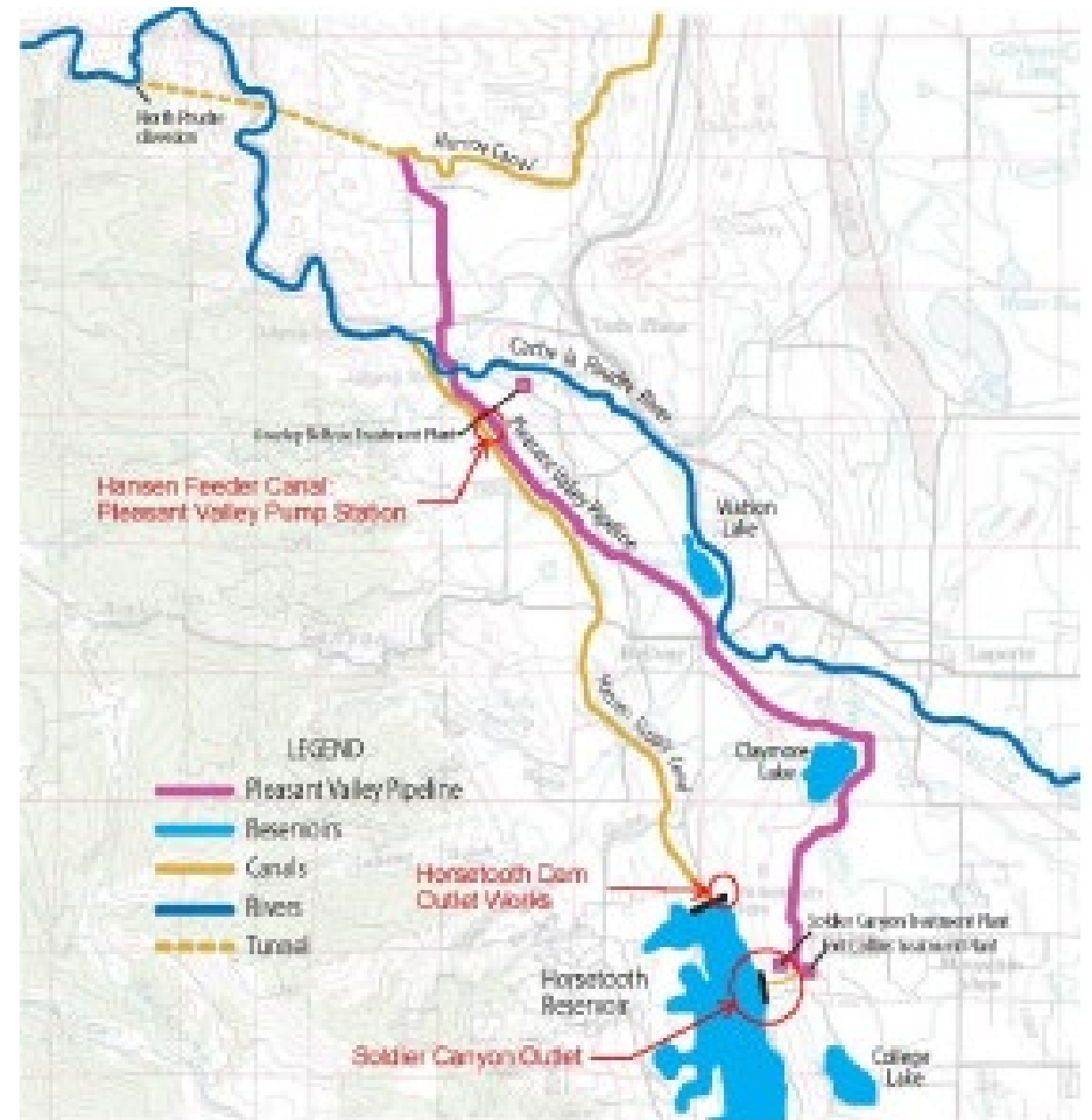
# Horsetooth Auxiliary Outlet Works Study Project Updates

05-19-2023



## Agenda

- Draft Purpose and Need
- Review of Alternatives
- Construction Cost Estimates
- Comparison of Alternatives
- Summary
- Schedule Status



## Purpose and Need

### **PURPOSE AND NEED:**

The purpose of the Horsetooth Reservoir Auxiliary Outlet Works project is to provide for long-term reliability in water supply deliveries out of Horsetooth Reservoir for existing water users via the Pleasant Valley Pipeline.

The need is to develop redundancy in the current water delivery system from Horsetooth Reservoir, in a manner that maintains the seasonal water quality of current deliveries, to alleviate periodic constraints on delivery due to maintenance shutdowns, outages, fire management, or other emergency situations.

Northern Water has identified several limitations on its current water delivery system, particularly in relation to water quality, redundancy, and water delivery to three water treatment plants (WTPs) within Northern Water's system boundaries.

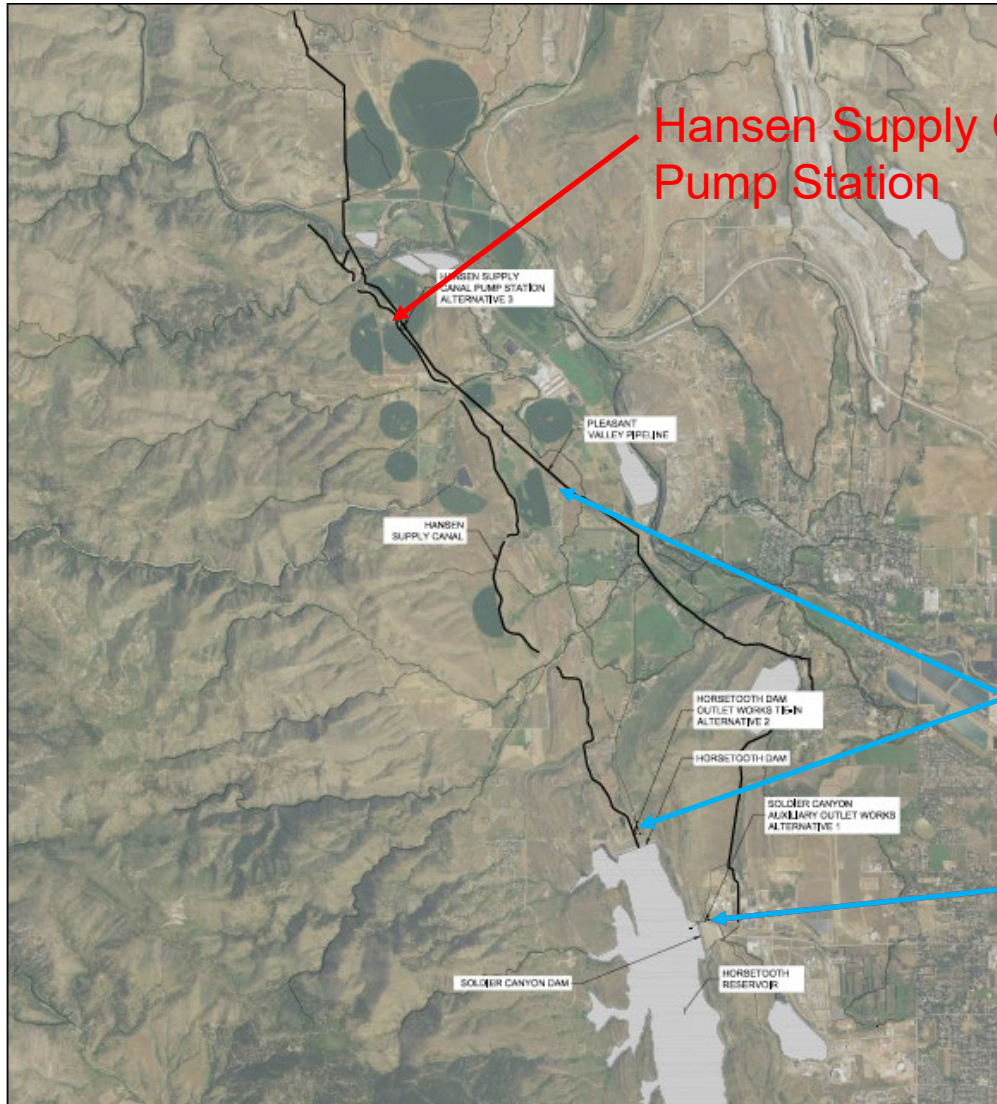
- Soldier Canyon Filter Plant (Tri-Districts)
- City of Fort Collins Water Treatment Facility (City of Fort Collins)
- Bellvue Water Treatment Plant WTP (City of Greeley)

## Conceptual Alternatives Considered

- **Alternative 1. Soldier Canyon Auxiliary Outlet Works**
- **Alternative 2. Horsetooth Dam Outlet Works Tie-In**
- **Alternative 3. Hansen Supply Canal Pump Station**
- All of the alternatives will connect to the existing Pleasant Valley Pipeline (PVP)



# Conceptual Alternatives Considered



- **Alternative 1. Soldier Canyon Auxiliary Outlet Works**
- **Alternative 2. Horsetooth Dam Outlet Works Tie-In**
- **Alternative 3. Hansen Supply Canal Pump Station**

All of the alternatives will connect to the existing Pleasant Valley Pipeline (PVP)

Horsetooth Dam Outlet Works Tie-in

Soldier Canyon Auxiliary Outlet Works

# HORSETOOTH RESERVOIR AUXILIARY OUTLET WORKS

## WATER DIVISION: 1, WATER DISTRICT: 3

### LARIMER COUNTY, COLORADO

PREPARED FOR:  
 NORTHERN COLORADO WATER CONSERVANCY DISTRICT  
 APRIL, 2023



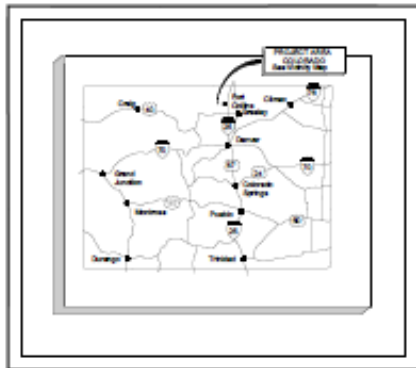
PROJECT  
 HORSETOOTH RESERVOIR  
 AUXILIARY OUTLET  
 WORKS PROJECT

CLIENT  

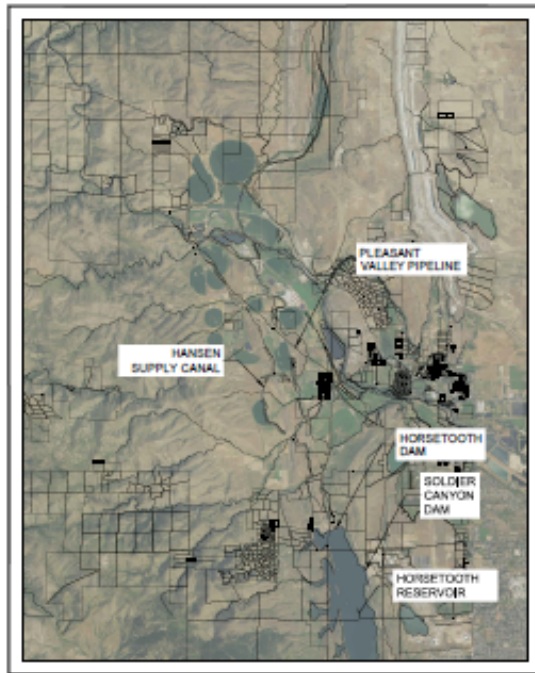
 Northern Colorado Water Conservancy District  
 228 Water Avenue • Fort Collins, Colorado 80513  
 970-369-7216 • www.northernwater.org

CONSULTANT  
 AECOM  
 1745 Technology Way  
 Suite 200, Denver, Colorado, 80227  
 303-944-2170  
 www.aecom.com

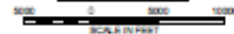
CONSULTANTS



COLORADO  
 STATE MAP  
 NOT TO SCALE



VICINITY MAP



DRAWING LIST	
SHEET NO.	SHEET TITLE
1	COVER SHEET - LOCATION MAP
2	GENERAL PLAN VIEW OF ALTERNATIVES
3	ALTERNATIVE 1 SOLDIER CANYON AUXILIARY OUTLET WORKS PLAN
4	ALTERNATIVE 1 SOLDIER CANYON AUXILIARY OUTLET WORKS PROFILE
5	ALT 1 SOLDIER CANYON AUX OUTLET WORKS INTAKE TOWER PLAN & SECTS
6	ALT 1 SOLDIER CANYON AUX OUTLET WORKS TOWER & TUNNEL SECTS
7	ALT 1 SOLDIER CANYON AUX OUTLET WORKS TUNNEL ACCESS VAULT
8	ALT 1 SOLDIER CANYON AUX OUTLET WORKS PIPE CONNECTION VAULT
9	ALT 1 OUTLET PIPE EXTENSION PLAN AND PROFILE
10	ALT 1 SOLDIER CANYON AUX OUTLET WORKS METER VAULT DETAILS
11	ALT 1 SOLDIER CANYON AUX OUTLET WORKS VALVE VAULT DETAILS
12	ALT 2 HORSETOOTH DAM OUTLET WORKS TIE-IN (ALTERNATE 2A)
13	ALT 2 HORSETOOTH DAM OUTLET WORKS TIE-IN PLAN (ALTERNATE 2B)
14	ALT 2 HORSETOOTH DAM OUTLET WORKS TIE-IN SECTION (ALTERNATE 2B)
15	ALT 2 HORSETOOTH DAM OUTLET PIPE EXTENSION PLAN & PROFILE SHT 1
16	ALT 2 HORSETOOTH DAM OUTLET PIPE EXTENSION PLAN & PROFILE SHT 2
17	ALT 2 HORSETOOTH DAM OUTLET PIPE EXTENSION PLAN & PROFILE SHT 3
18	ALT 2 HORSETOOTH DAM OUTLET PIPE EXTENSION VALVE VAULT DETAILS
19	ALT 2 HORSETOOTH DAM OUTLET PIPE EXTENSION METER VAULT DETAILS
20	ALT 3 HANSEN SUPPLY CANAL PUMP STATION PLAN OVERVIEW
21	ALT 3 HANSEN SUPPLY CANAL PUMP STATION PLAN
22	ALT 3 HANSEN SUPPLY CANAL PUMP STATION FORESBAY PLAN
23	ALT 3 HANSEN SUPPLY CANAL PUMP STATION SECTION
24	ALT 3 HANSEN SUPPLY CANAL PUMP STATION INTAKE DETAILS
25	ALT 3 HANSEN SUPPLY CANAL PUMP STATION METER VAULT DETAILS
26	ALT 3 HANSEN SUPPLY CANAL PUMP STATION VALVE VAULT DETAILS
27	ALT 3 HANSEN SUPPLY CANAL PUMP STATION HYDRAULIC PROFILE

REGISTRATION

SEO CONSTRUCTION NUMBER

PROJECT NUMBER

60684737

SHEET TITLE

COVER SHEET - LOCATION MAP

SHEET NUMBER

1

CONCEPTUAL DESIGN  
 NOT FOR CONSTRUCTION



## Design Criteria

Parameter	Value
Embankment Crest El. (feet)	5443
Normal Maximum Operating Pool El. (feet)	5430
Normal Minimum Operating Pool El. (feet)	5370
Minimum Operating Pool El. (feet)	5325
Existing Soldier Canyon Dam Intake El.	5270
Existing Horsetooth Dam Intake El.	5293
PVP Min. Operating Pressure (psi)	10 (assumed)
PVP Max. Operating Pressure (psi)	120
<b>Design Discharge (cfs)</b>	<b>190</b>

# Alternative 1

## Soldier Canyon Auxiliary Outlet Works

### Key Features:

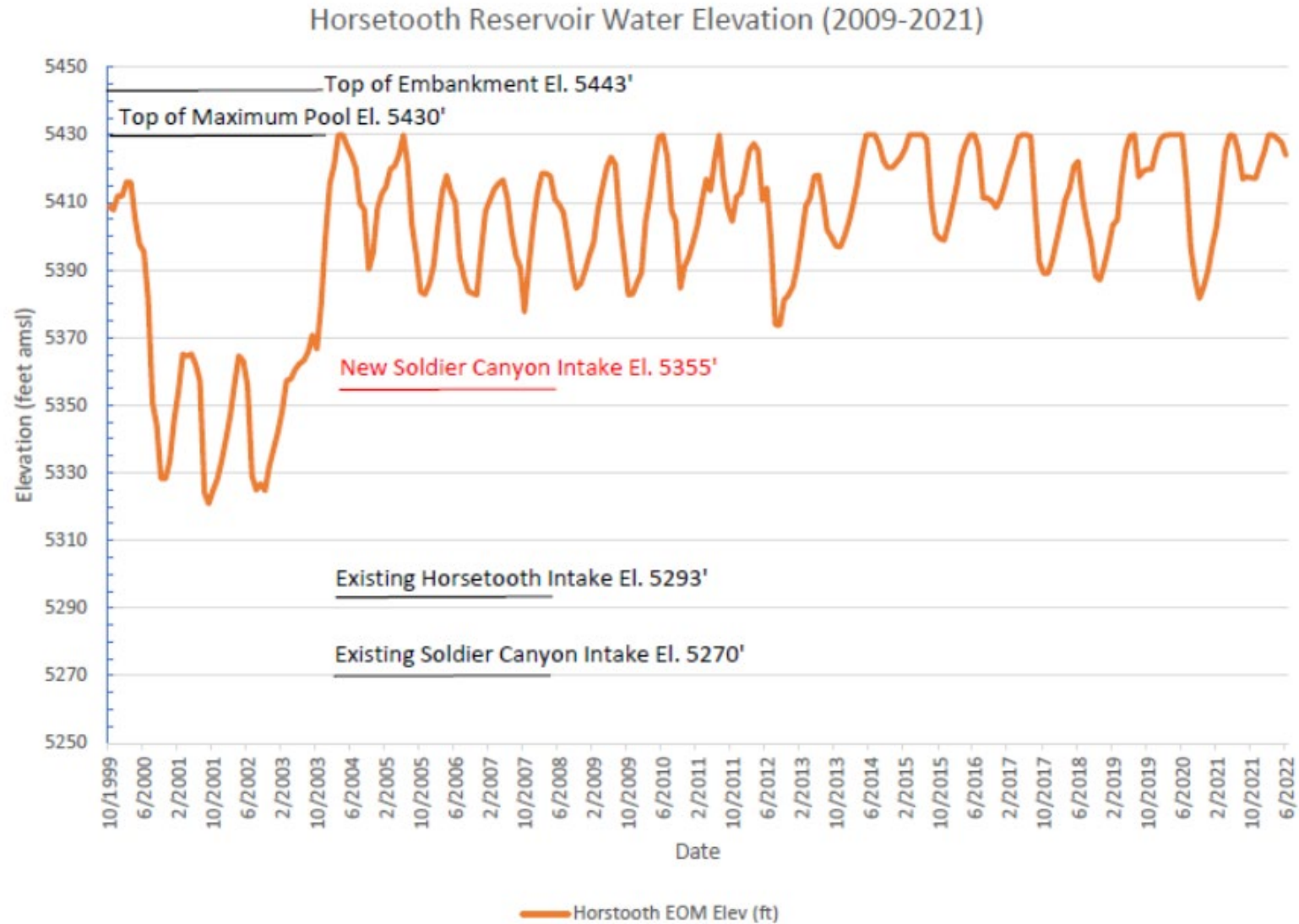
- New gated reinforced concrete intake tower (Intake El. 5,355 feet, 98 feet high)
- Tunnel and concrete encased 72-inch diameter steel outlet through left abutment (approx. 500' feet length)
- New 66-inch diameter steel pipeline to PVP (approx. 1,200 feet length)
- Crossing of existing Soldier Canyon pipelines
- Associated valves, vaults and measuring devices

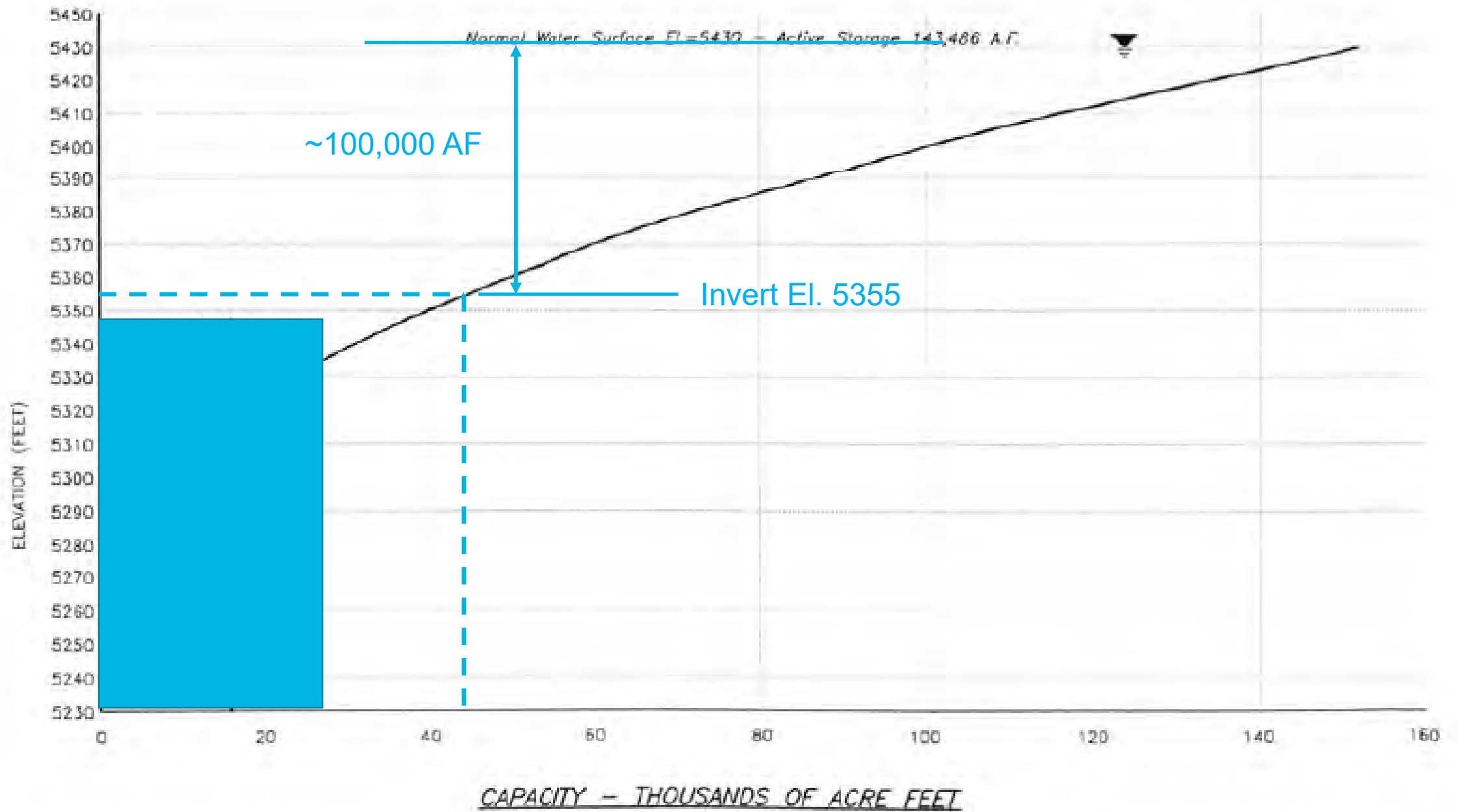
### Construction Considerations:

- Requires lowering of reservoir
- Access from right abutment (public swim beach)

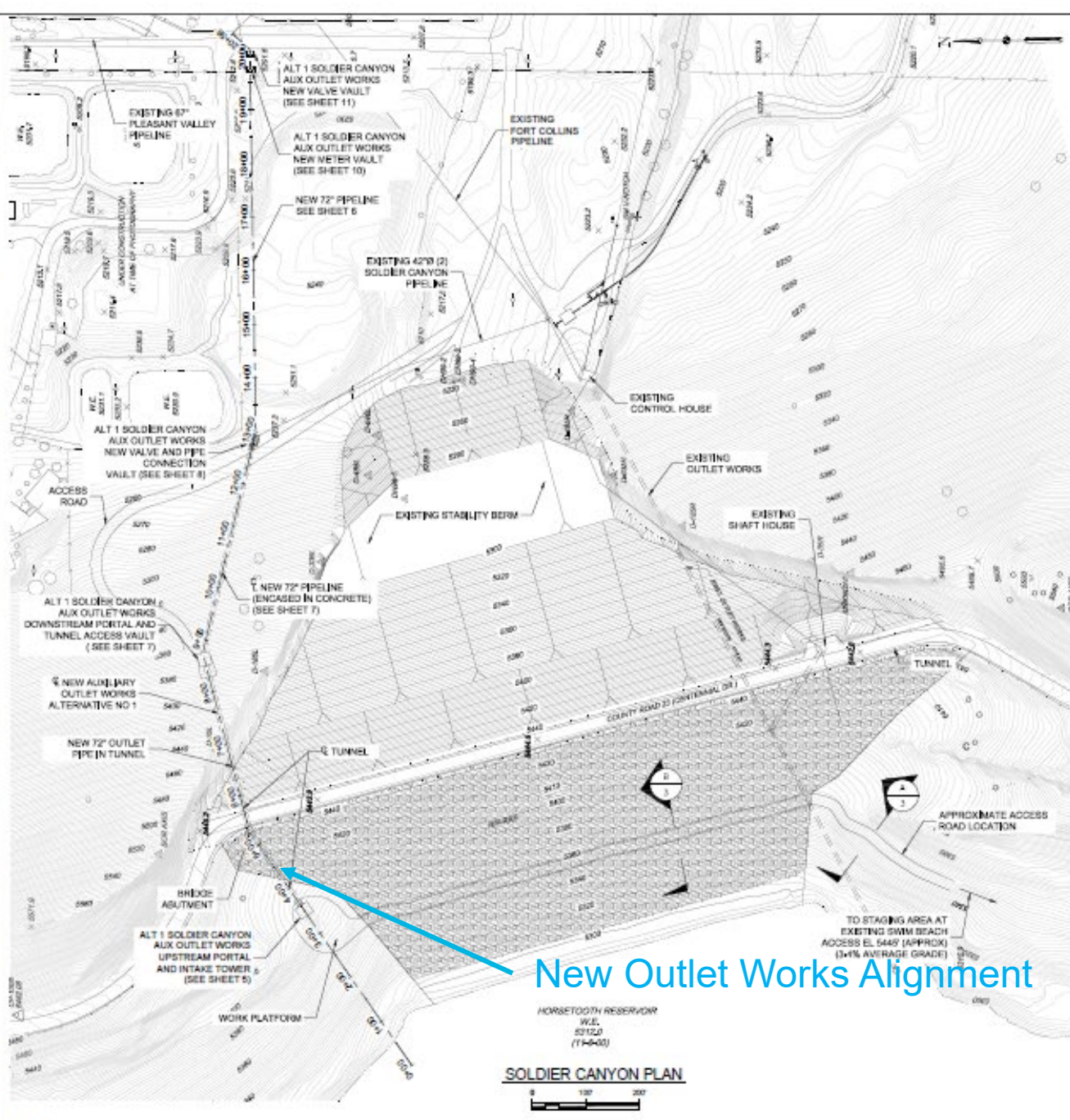


# Horsetooth Reservoir Elevations (2009-2021)



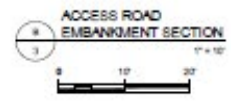
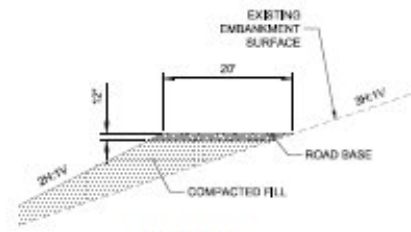
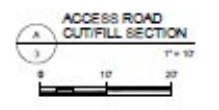
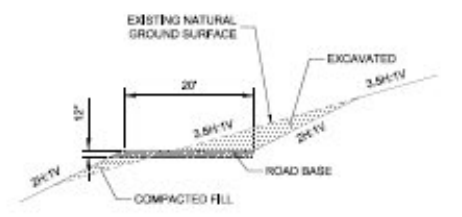


Approved: \_\_\_\_\_ Date: \_\_\_\_\_  
 Project Manager: \_\_\_\_\_  
 Designer: \_\_\_\_\_  
 Checker: \_\_\_\_\_  
 Engineer: \_\_\_\_\_  
 Surveyor: \_\_\_\_\_  
 Surveyor in Charge: \_\_\_\_\_  
 Surveyor License No.: \_\_\_\_\_  
 Surveyor Registration No.: \_\_\_\_\_  
 Surveyor State: \_\_\_\_\_  
 Surveyor Date: \_\_\_\_\_  
 Surveyor Title: \_\_\_\_\_  
 Surveyor Firm: \_\_\_\_\_  
 Surveyor Address: \_\_\_\_\_  
 Surveyor City: \_\_\_\_\_  
 Surveyor State: \_\_\_\_\_  
 Surveyor Zip: \_\_\_\_\_  
 Surveyor Phone: \_\_\_\_\_  
 Surveyor Fax: \_\_\_\_\_  
 Surveyor Email: \_\_\_\_\_  
 Surveyor Website: \_\_\_\_\_  
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 Surveyor Address: \_\_\_\_\_  
 Surveyor City: \_\_\_\_\_  
 Surveyor State: \_\_\_\_\_  
 Surveyor Zip: \_\_\_\_\_  
 Surveyor Phone: \_\_\_\_\_  
 Surveyor Fax: \_\_\_\_\_  
 Surveyor Email: \_\_\_\_\_  
 Surveyor Website: \_\_\_\_\_



**SOLDIER CANYON PLAN**

**New Outlet Works Alignment**



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**AECOM**  
 PROJECT  
**HORSETOOTH RESERVOIR  
 AUXILIARY OUTLET  
 WORKS PROJECT**

CLIENT  
  
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**AECOM**  
 7500 Technology Way  
 Suite 200, Denver, Colorado, 80237  
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REGISTRATION

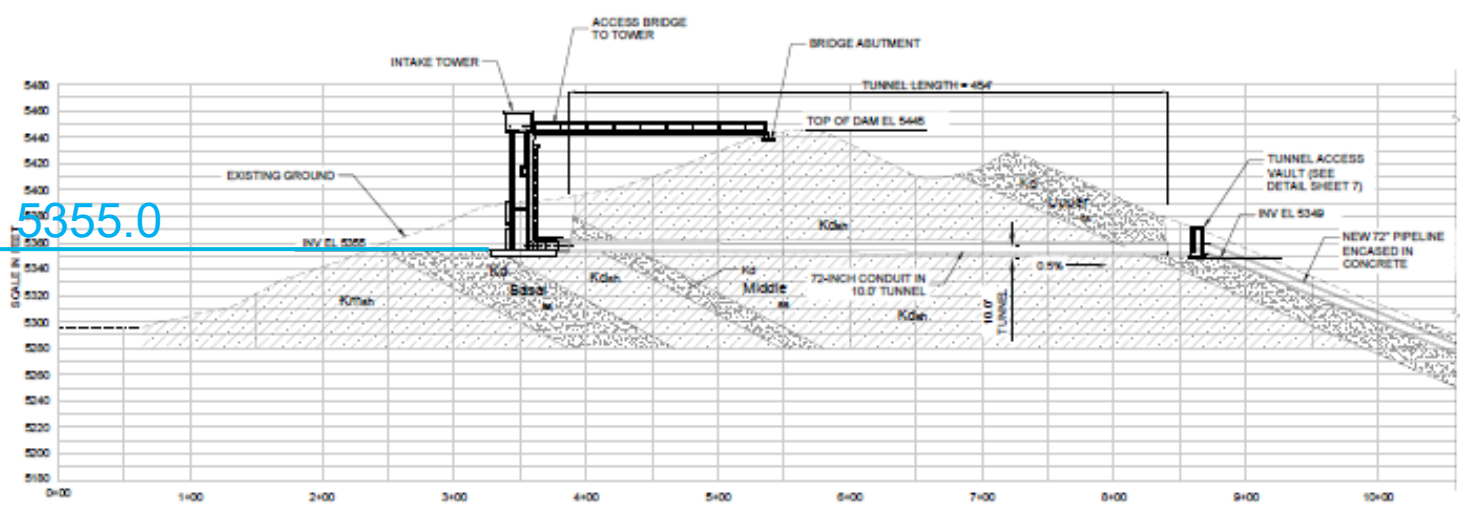
SEO CONSTRUCTION NUMBER

PROJECT NUMBER  
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 SHEET TITLE  
 ALTERNATIVE 1  
 SOLDIER CANYON  
 AUXILIARY OUTLET  
 WORKS PLAN  
 SHEET NUMBER  
 3

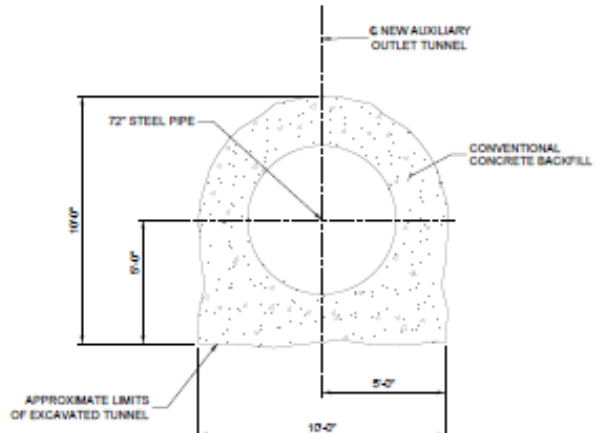
**AECOM**

Project Management: [Name], Design: [Name], Check: [Name], Approval: [Name], Date: [Date]  
 Project: HORSETOOTH RESERVOIR AUXILIARY OUTLET WORKS PROJECT, SHEET: 6084737-1, SCALE: 1"=100'  
 Project Location: SOLDER CANYON, COLORADO, PROJECT NUMBER: 6084737, SHEET NUMBER: 6084737-1, DATE: 10/20/17

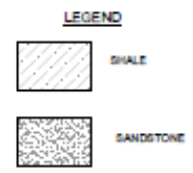
Inv El 5355.0



PROFILE ON OUTLET  
 0 50 100



TUNNEL SECTION  
 3/8" = 1'-0"  
 0 5 10



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 www.aecom.com

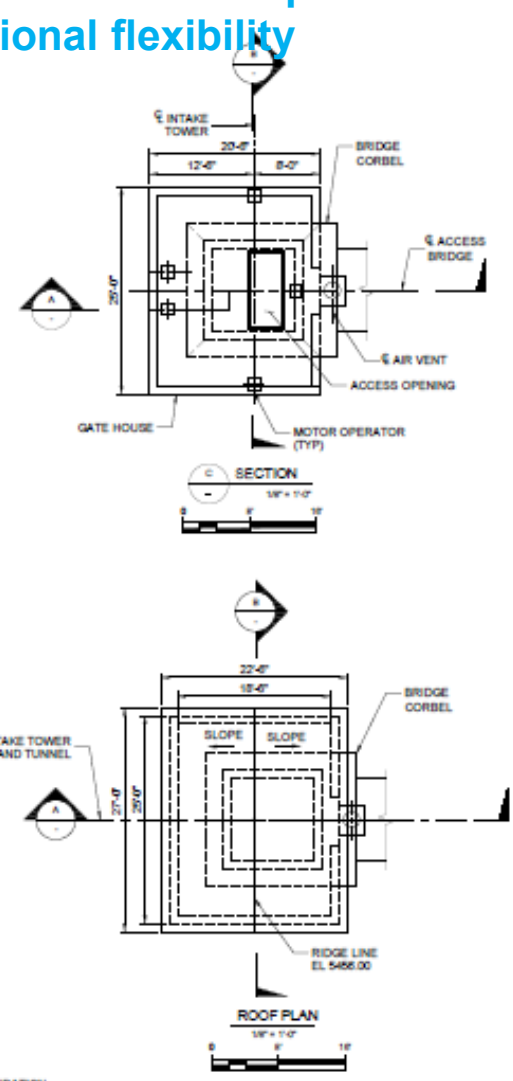
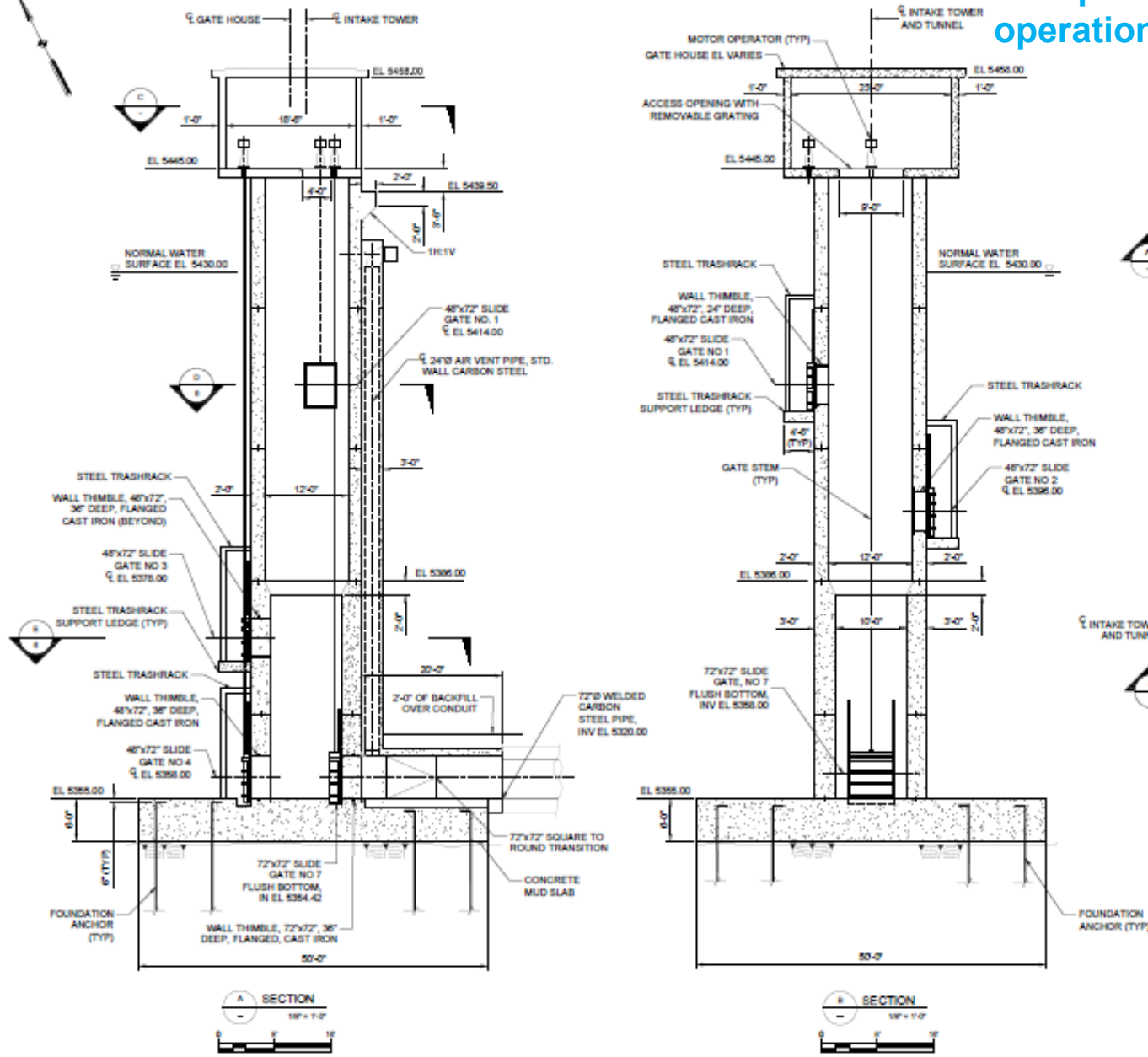
REGISTRATION

SEO CONSTRUCTION NUMBER

PROJECT NUMBER  
 6084737  
 SHEET TITLE  
 ALTERNATIVE 1  
 SOLDIER CANYON  
 AUXILIARY OUTLET  
 WORKS PROFILE  
 SHEET NUMBER



# Multiple Intake Gate provide operational flexibility



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WORKS PROJECT

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REGISTRATION

SEO CONSTRUCTION NUMBER

PROJECT NUMBER

80684737

SHEET TITLE

ALT 1 SOLDIER CANYON  
AUX OUTLET WORKS  
INTAKE TOWER PLAN &  
SECTS

SHEET NUMBER

5



Approved: \_\_\_\_\_  
 Checked: \_\_\_\_\_  
 Design: \_\_\_\_\_  
 Project Manager/Lead: \_\_\_\_\_  
 Lead Designer: J. BOUTCHER/DESIGNER: J. L. WATKINS/375 44-17  
 Review: M. GOSWAMI/DO NOT SCALE/DESIGNED BY: B. GOSWAMI/CONSTRUCTED BY: NEW 4713 HORSETOOTH, CO, 8780 VERCILLO/616-GATED BY: B. GOSWAMI TO: BERTHOUD



## Alternative 2

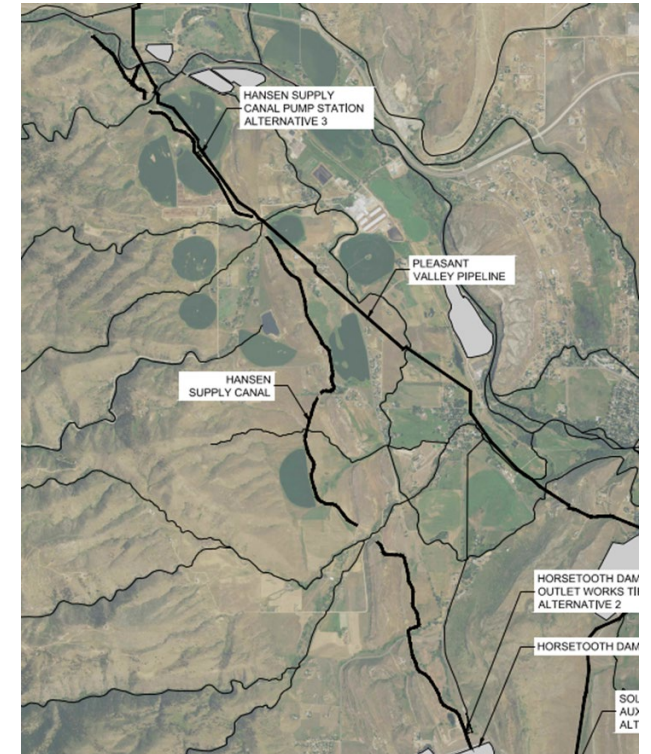
### Horsetooth Dam Outlet Works Tie-in

#### Key Features:

- Bifurcation and extension off existing 72-inch Horsetooth Dam outlet conduit
- New 66-inch diameter steel pipeline to PVP (approx. 10,300 feet length)
- Associated valves, vaults and measuring devices

#### Construction Considerations:

- 2 alternatives for connection to existing Horsetooth Dam outlet
- Requires easement acquisition
- Outlet and canal shut during construction of bifurcation



Project Manager: Steve ...  
 Designer: ...  
 Checker: ...  
 Approver: ...  
 Date: 03/27/14  
 File Path: ...  
 Revision: ...



**PROJECT**  
 HORSETOOTH RESERVOIR  
 AUXILIARY OUTLET  
 WORKS PROJECT

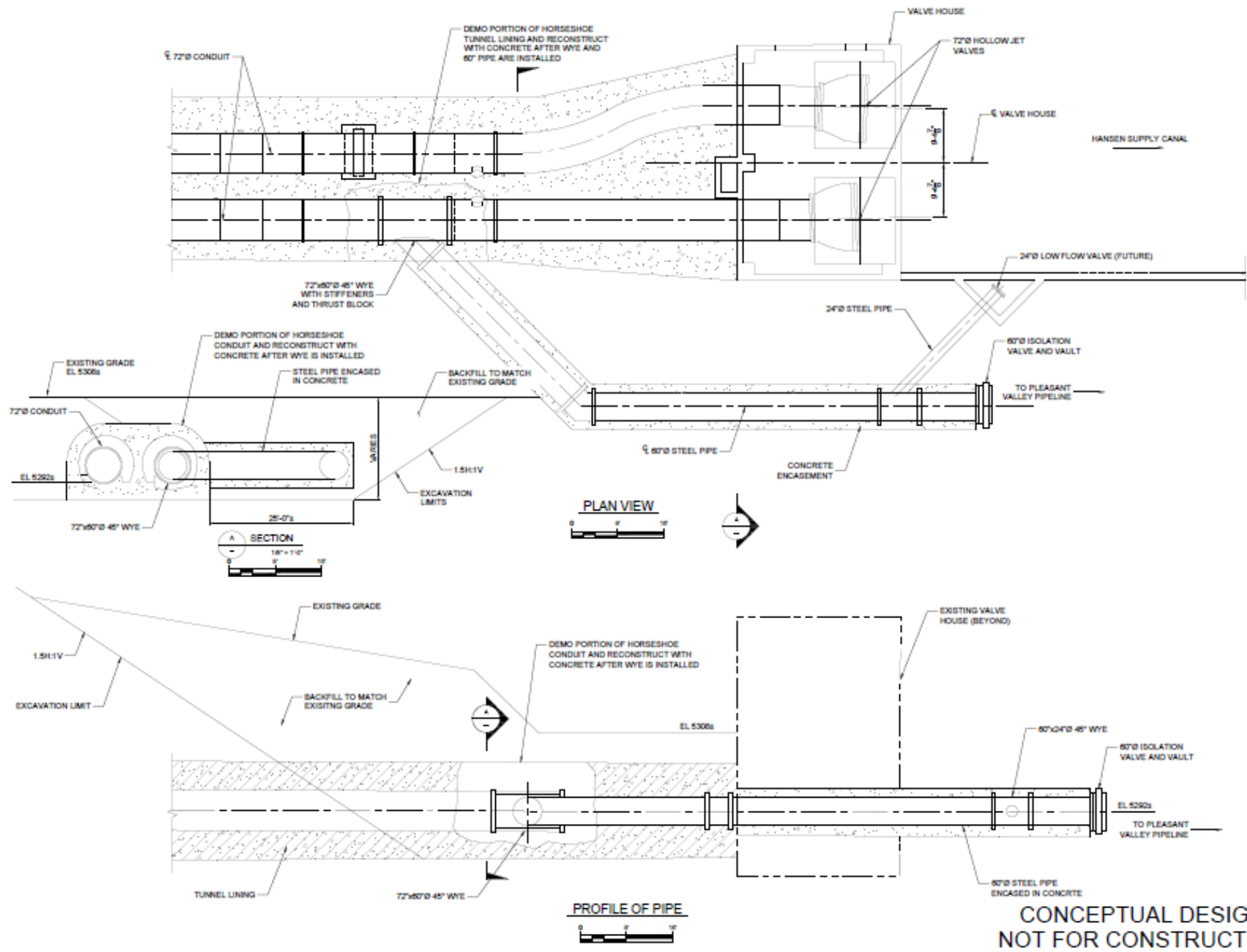
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**CONSULTANT**  
 AECOM  
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**REGISTRATION**

**SEO CONSTRUCTION NUMBER**

**PROJECT NUMBER**  
 60884737  
**SHEET TITLE**  
 ALT 2 HORSETOOTH  
 DAM OUTLET WORKS  
 TIE-IN (ALTERNATE 2A)  
**SHEET NUMBER**

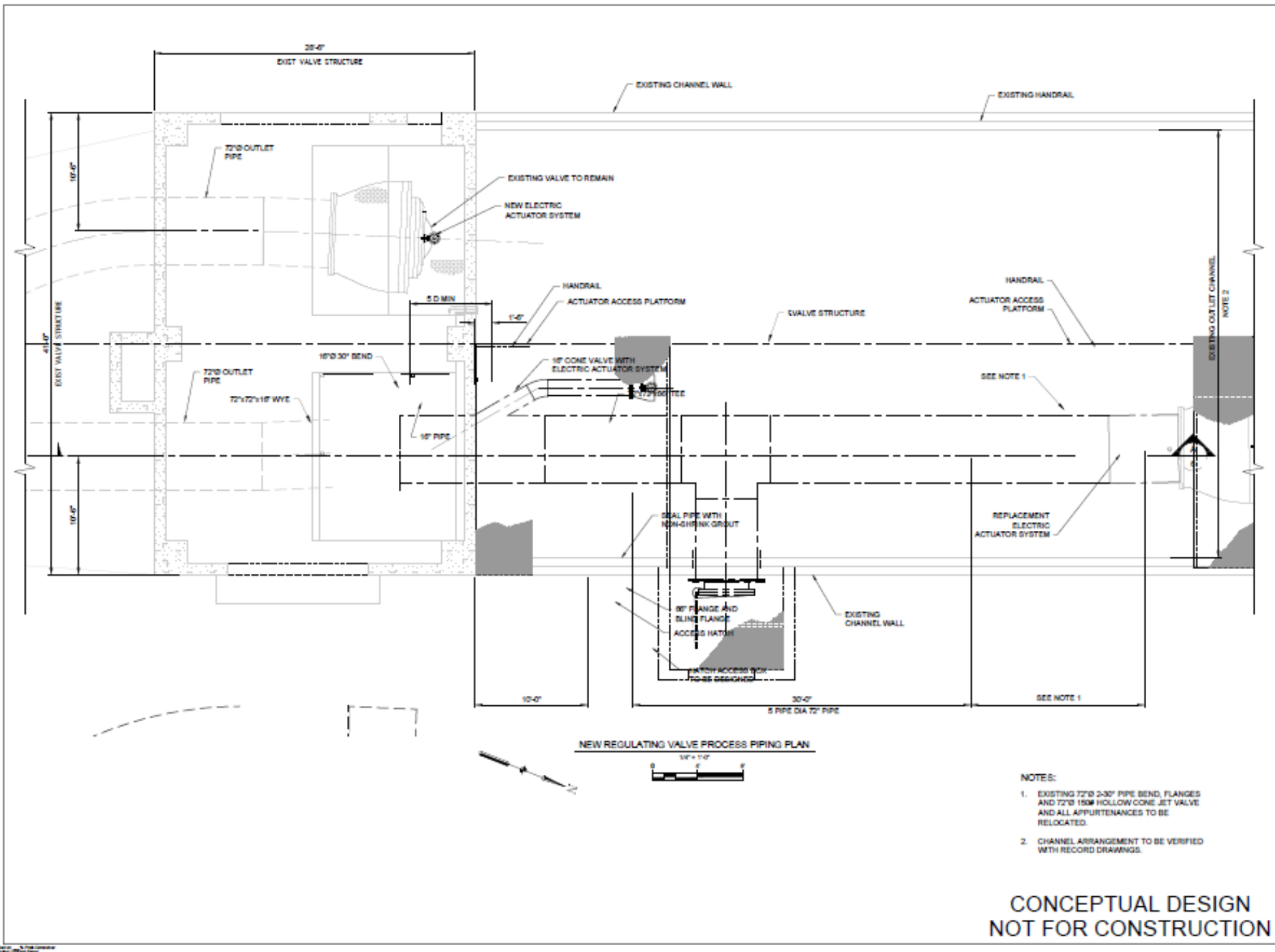


**CONCEPTUAL DESIGN**  
**NOT FOR CONSTRUCTION**

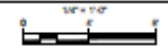




Project Management: [Name], Designer: [Name], Checker: [Name], Approved: [Name], Date: [Date]  
 Project: HORSETOOTH RESERVOIR AUXILIARY OUTLET WORKS PROJECT  
 Drawing: NEW REGULATING VALVE PROCESS PIPING PLAN AND ELECTRICALS  
 Scale: 1/8" = 1'-0"  
 Date: 10/15/2013  
 File Path: \\AECOM\PROJECTS\2013\10\15\HORSETOOTH\_RESERVOIR\_AUXILIARY\_OUTLET\_WORKS\_PROJECT\DRAWINGS\NEW REGULATING VALVE PROCESS PIPING PLAN AND ELECTRICALS.dwg



NEW REGULATING VALVE PROCESS PIPING PLAN



- NOTES:
- EXISTING 72" 2-30" PIPE BEND, FLANGES AND 72" 150# HOLLOW CONE JET VALVE AND ALL APPURTENANCES TO BE RELOCATED.
  - CHANNEL ARRANGEMENT TO BE VERIFIED WITH RECORD DRAWINGS.

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PROJECT  
HORSETOOTH RESERVOIR  
AUXILIARY OUTLET  
WORKS PROJECT

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Northern Colorado Water Conservancy District  
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AECOM  
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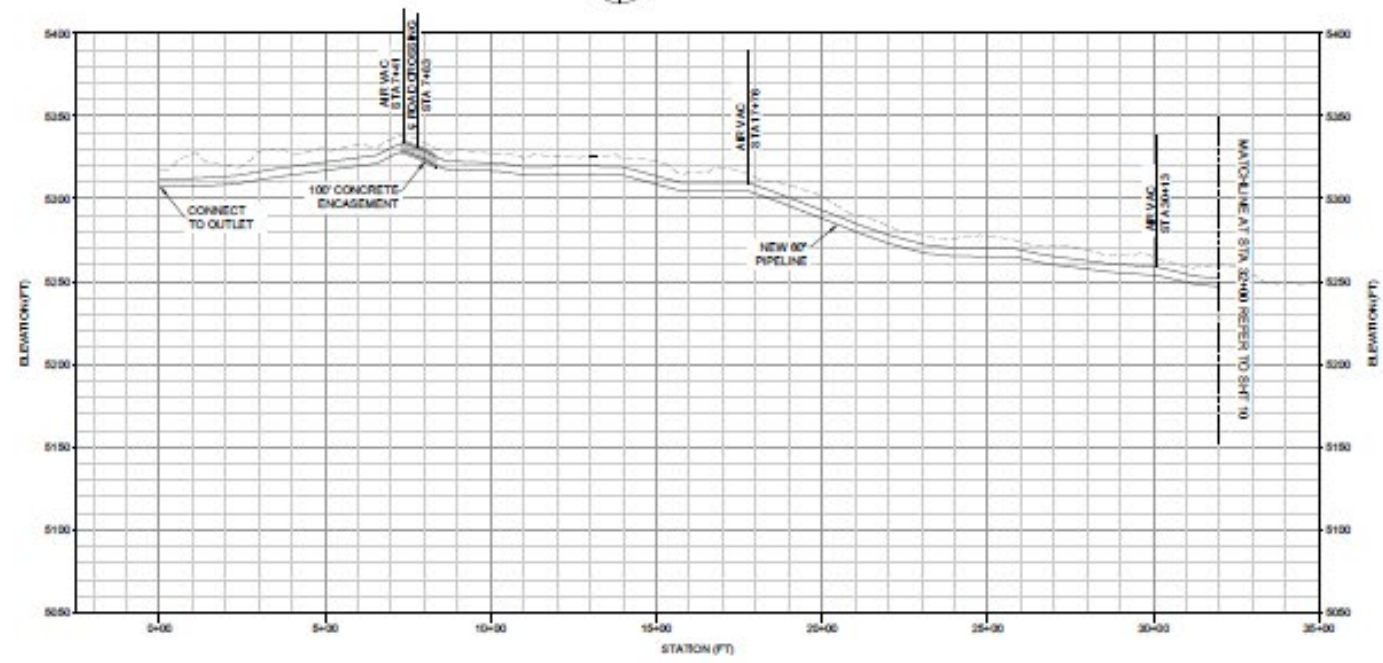
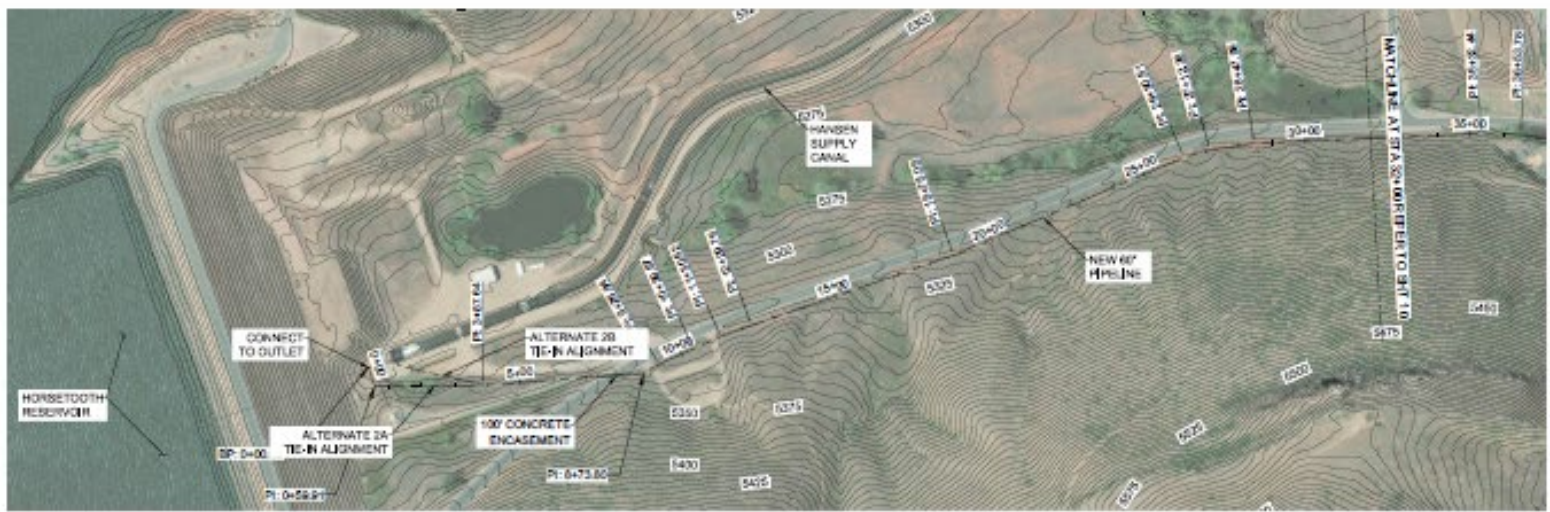
SEO CONSTRUCTION NUMBER

PROJECT NUMBER  
60684737  
SHEET TITLE  
ALT 2 HORSETOOTH DAM  
OUTLET WORKS TIE-IN PLAN  
(ALTERNATE 2B)  
SHEET NUMBER






PROJECT: HORSETOOTH DAM OUTLET PIPE EXTENSION PROJECT  
 SHEET: ALT 2 HORSETOOTH DAM OUTLET PIPE EXTENSION PLAN & PROFILE SHEET 1  
 DATE: 10/20/2017  
 DRAWN BY: JACOB L. COOPER  
 CHECKED BY: JACOB L. COOPER  
 APPROVED BY: JACOB L. COOPER  
 PROJECT NUMBER: 0004737  
 SHEET NUMBER: 15



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PROJECT  
**HORSETOOTH RESERVOIR  
 AUXILIARY OUTLET  
 WORKS PROJECT**

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REGISTRATION

SEO CONSTRUCTION NUMBER

PROJECT NUMBER

0004737

SHEET TITLE

ALT 2 HORSETOOTH DAM  
 OUTLET PIPE EXTENSION  
 PLAN & PROFILE SHEET 1

SHEET NUMBER

15









## Alternative 3

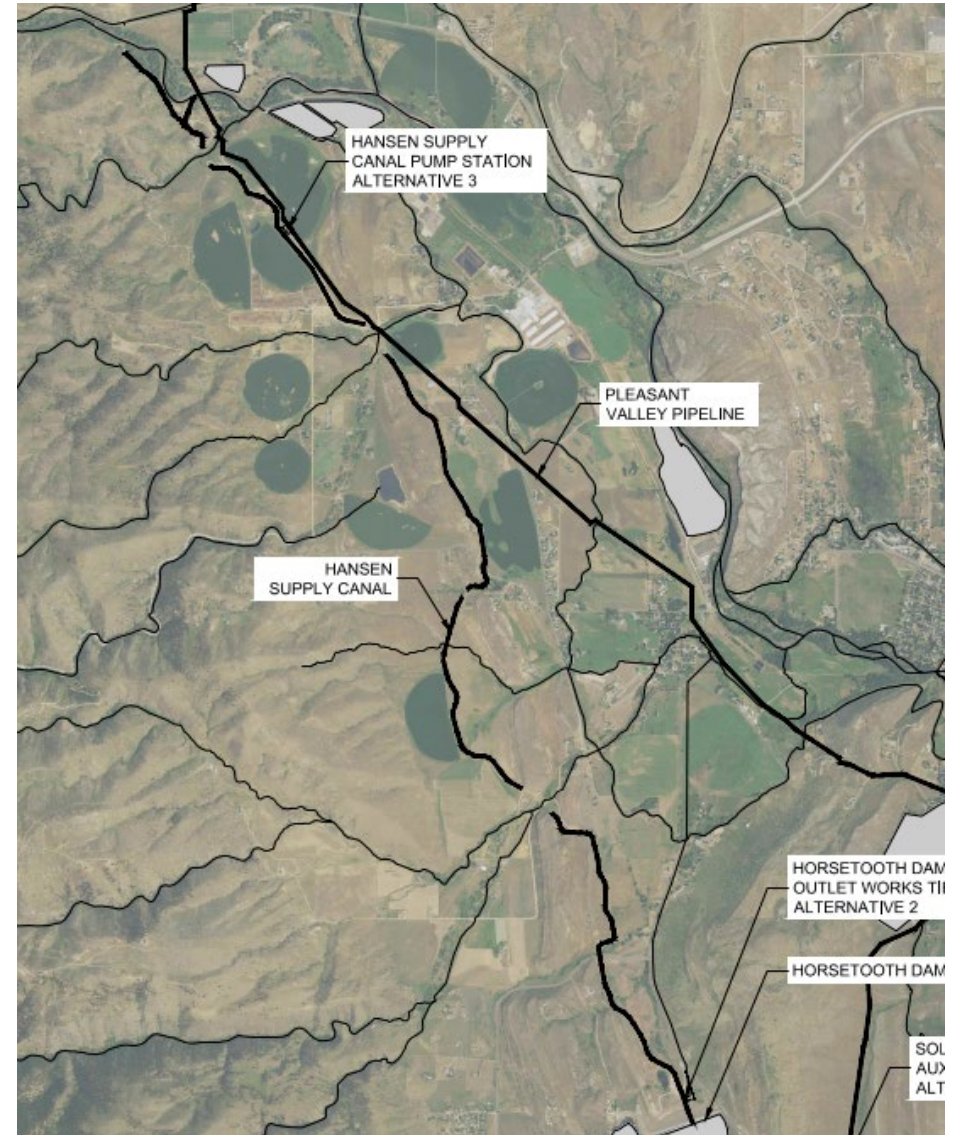
# Hansen Supply Canal Pump Station

### Key Features:

- Intake system within the existing Hansen Supply Canal
- Pump station (seven 700-hp vertical turbine pumps)
- New 67-inch diameter steel pipeline to PVP (approx. 140 feet length)
- Associated valves, vaults and measuring devices

### Construction Considerations:

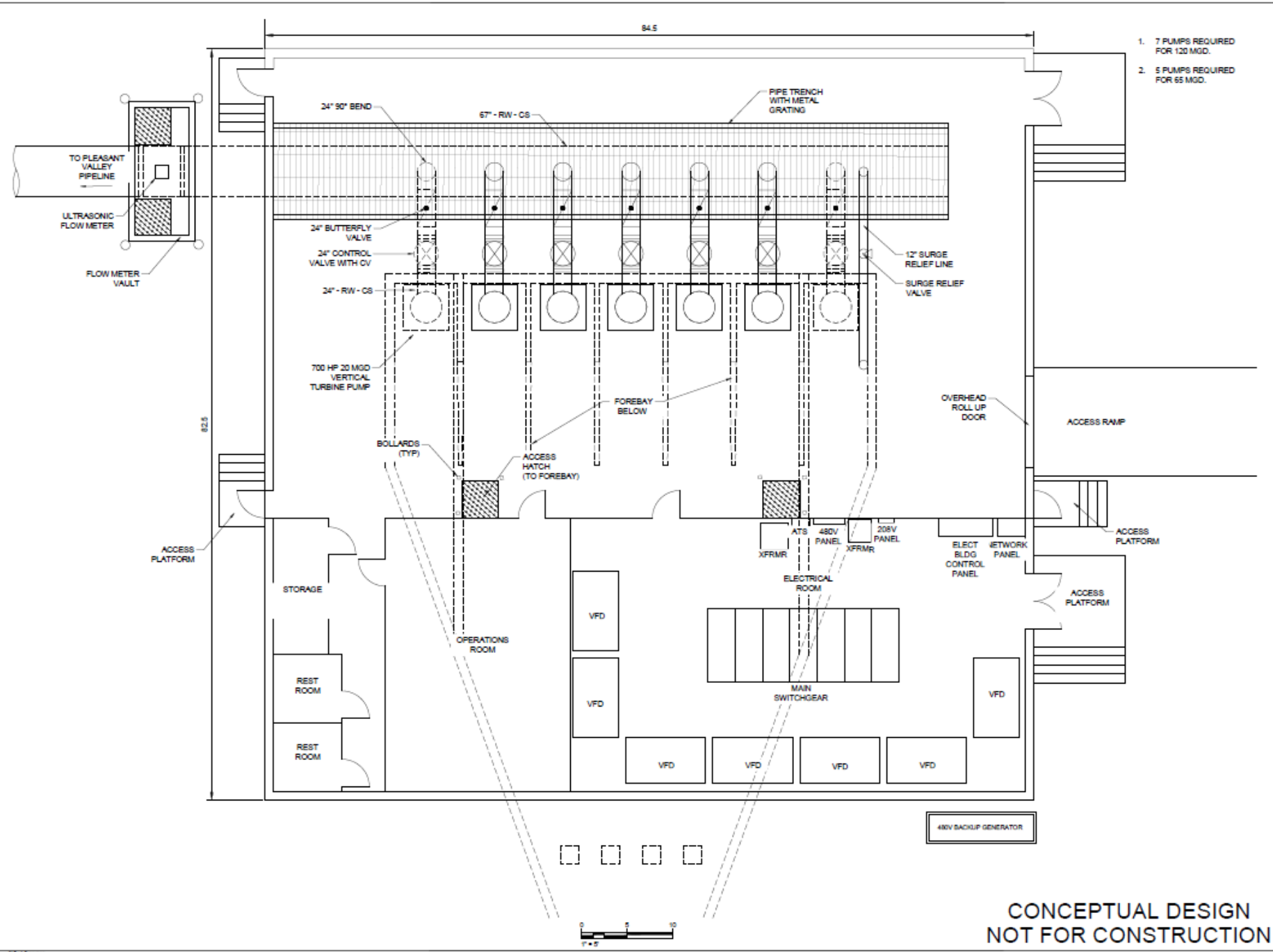
- Outlet and canal shut during construction of intake
- Requires power to be brought to site
- Requires property acquisition for pump station







Project Management: ANB (D2)'s 3d  
 Designer: \_\_\_\_\_  
 Checked: \_\_\_\_\_  
 Approved: \_\_\_\_\_  
 Last modified: C:\Users\jg\OneDrive\Documents\Projects\HORSE TOOTH\_AUX\_OUTLET\3D\PLAN\DWG\_001\HORSE\_TOOTH\_AUX\_OUTLET\_3D\PLAN\DWG\_001.dwg  
 Date: 11/14/2023 10:40 AM  
 Plotted: 11/14/2023 10:40 AM  
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 Plot Style: HP-DesignJet-1100e.ctb  
 Plot Range: All  
 Plot Scale: 1" = 8'  
 Plot Orientation: Landscape  
 Plot Color: Black  
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 Plot Linetype: Solid  
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 Plot Font Color: Black  
 Plot Font Style: Normal  
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 Plot Font Weight: Normal  
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 Plot Font Style: Normal  
 Plot Font Size: 10  
 Plot Font Weight: Normal



1. 7 PUMPS REQUIRED FOR 120 MGD.
2. 5 PUMPS REQUIRED FOR 65 MGD.



PROJECT  
**HORSETOOTH RESERVOIR  
 AUXILIARY OUTLET  
 WORKS PROJECT**

CLIENT  

**Municipal Subdistrict**  
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 220 Water Avenue • Berthoud, Colorado 80513  
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 AECOM  
 7505 Technology Way  
 Suite 200, Denver Colorado, 80237  
 303-964-2770  
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REGISTRATION

SEO CONSTRUCTION NUMBER

PROJECT NUMBER  
 60684737

SHEET TITLE

ALT 3 HANGEN SUPPLY CANAL  
 PUMP STATION PLAN

SHEET NUMBER  
 15

**CONCEPTUAL DESIGN  
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AECOM PROJECT NUMBER: 50084737 - HORSETOOTH RESERVOIR INTAKE AND SUPPLY CANAL PUMP STATION (SEE SHEET 50084737) - 11/15/2017  
 PROJECT LOCATION: HORSETOOTH RESERVOIR INTAKE AND SUPPLY CANAL PUMP STATION (SEE SHEET 50084737) - 11/15/2017  
 SHEET TITLE: ALT 3 HANSEN SUPPLY CANAL PUMP STATION INTAKE DETAILS (SEE SHEET 50084737) - 11/15/2017  
 SHEET NUMBER: 24 OF 24  
 PROJECT NUMBER: 50084737  
 SHEET TITLE: ALT 3 HANSEN SUPPLY CANAL PUMP STATION INTAKE DETAILS (SEE SHEET 50084737)  
 SHEET NUMBER: 24 OF 24

PROJECT  
**HORSETOOTH RESERVOIR  
 AUXILIARY OUTLET  
 WORKS PROJECT**

CLIENT  

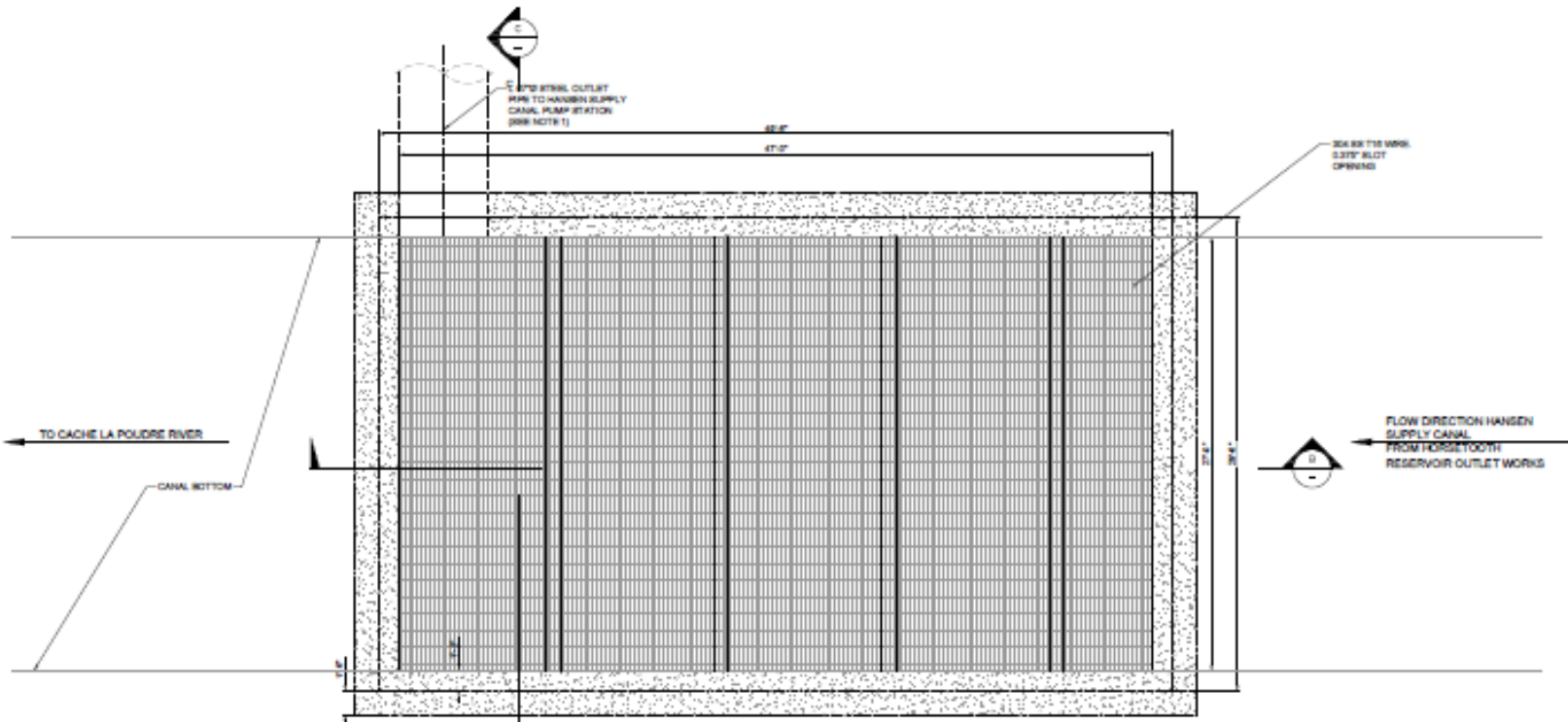
**Municipal Subdistrict**  
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 230 Water Street • Boulder, Colorado 80505  
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CONSULTANT  
**AECOM**  
 7500 Teeter Way  
 Suite 200, Denver, Colorado, 80221  
 303-464-3770  
 www.aecom.com

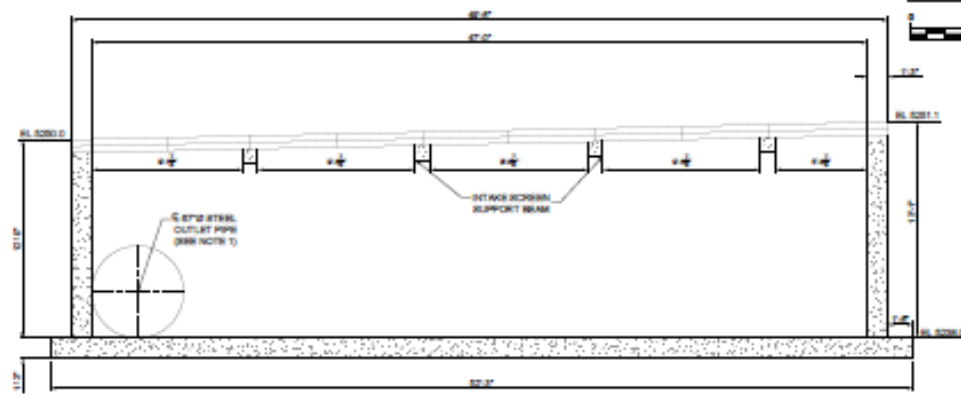
REGISTRATION

SEO CONSTRUCTION NUMBER

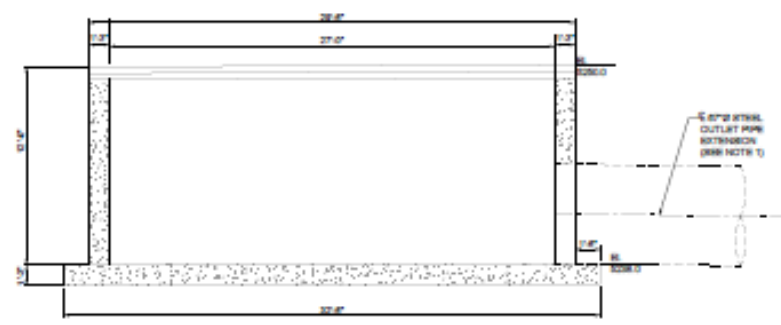
PROJECT NUMBER  
 50084737  
 SHEET TITLE  
 ALT 3 HANSEN  
 SUPPLY CANAL  
 PUMP STATION  
 INTAKE DETAILS  
 SHEET NUMBER



PLAN VIEW



SECTION A-A  
 1/4" = 1'-0"



SECTION B-B  
 1/4" = 1'-0"

NOTES:  
 1. OR CONCRETE BOX  
 CULVERT INSIDE GATE  
 (NOT SHOWN).

**CONCEPTUAL DESIGN  
 NOT FOR CONSTRUCTION**

## Cost Estimate Approach and Basis

- Quantities developed from preliminary design drawings
- Equipment and material costs obtained from actual vendor quotes or recent similar projects
- Installation costs added to unit rates or included as a percentage of equipment costs
- Provisions included for:
  - Contingency (20%)
  - Engineering (8%)
  - Administrative and Legal Costs (5%)
  - Constr. Oversight, QA/QC Testing, Reporting (10%)
- Costs do not include:
  - Price escalation and market at time of bid
  - Change order reserves
  - Sales and gross receipt taxes
  - Regulatory permits, environmental studies, and mitigation
  - Procurement
  - Owner construction management
  - Power to site (as required)

## Cost Estimate Summary

Alternative No.	Description	Estimated Cost (\$M)
1	Soldier Canyon Auxiliary Outlet Works	\$31.9
2	Horsetooth Dam Outlet Works Tie-in	\$41.4
3	Hanson Supply Canal Pump Station	\$46.8

# Alternative Comparison Basis

## Overall Approach

1. Evaluation criteria developed jointly between Northern and AECOM
2. Alternatives were qualitatively rated at the ability to meet the given criteria

# Evaluation Criteria

## Costs

- Construction Cost
- O&M Costs

## Construction Risks and Temporary Impacts

- Constructability
- Construction Risk
- Temporary Impacts to Reservoir Operations and Water Deliveries
- Temporary Recreation and Public Impacts
- Temporary Impacts to Existing Infrastructure
- Temporary Water Quality Impacts

## Environmental, Social and Cultural Impacts

- Potential Environmental Impacts
- Potential Social and Cultural Impacts
- Water Quality Impacts

## Permitting and Approvals

- Environmental Permitting Requirements
- USBR Reclamation Coordination/Approval
- Coordination with Stakeholders
- Right of Way (ROW) and Property Acquisition Requirements

## Operational Considerations and Long-term Impacts

- Redundancy
- Reliability of Water Deliveries
- Operation and Maintenance Requirements
- Value Added Opportunities\*
- Integration into Existing Operations\*
- Operational Flexibility\*

**\*Factor of consideration but not a driver.**



Criteria	Description	Alternative 1-Soldier Canyon Auxiliary Outlet Works	Alternative 2-Horsetooth Dam Outlet Works Tie-in	Alternative 3-Hanson Supply Canal Pump Station
<b>Costs</b>				
<b>Construction Cost</b>	Capital cost of the proposed alternative.	\$31.9 +	\$41.4 +/-	\$46.8 -
<b>O&amp;M Costs</b>	O&M costs associated with the proposed alternative.	Typical operation and maintenance associated with an intake tower and tunnel +/-	Minimal operation and maintenance associated with the pipeline +	Significant operation and maintenance costs associated with pumping/mechanical equipment and electrical systems -
<b>Construction Risks and Temporary Impacts</b>				
<b>Constructability</b>	Constructability is defined as the overall feasibility of construction.	Tunnel construction (geologic uncertainty), access restrictions -	Modifications to existing outlet works required, standard pipeline construction +	No modifications to existing dam facilities, +/-
<b>Construction Risk and Complexity of Construction</b>	Risk associated with the overall construction of the alternative including the potential for cost growth and schedule impacts.	Tunnel, access, winter concrete placement, scheduling associated with reservoir drawdown -	Modification to existing outlet works completed during periods of shut down +	Complex facility construction and potential long lead times for equipment +/-
<b>Temporary Impacts to Reservoir Operations and Water Deliveries</b>	Lowering of pool or impact to normal water deliveries during construction.	Requires lowering of reservoir during construction -	Requires temporary closure of discharges from existing Horsetooth outlets during periods of regularly scheduled shut down +	Requires temporary disruption of water discharges in Hanson Supply Canal during periods of regularly scheduled shut down +

Criteria	Description	Alternative 1-Soldier Canyon Auxiliary Outlet Works	Alternative 2-Horsetooth Dam Outlet Works Tie-in	Alternative 3-Hanson Supply Canal Pump Station
<b>Temporary Recreation and Public Impacts</b>	Impacts to general public or recreational facilities.	Requires lowering of reservoir during winter and temporary closure of recreational facilities during off-season -	Minimal impacts +	Minimal impacts +
<b>Temporary Impacts to Existing Infrastructure</b>	Impacts to existing utilities, roadways and irrigation systems.	Requires closure of swim beach and County road across dam during construction -	Crossings of existing roadways, private access roads and irrigation facilities required +/-	Minimal impacts +
<b>Temporary Water Quality Impacts</b>	Temporary impact to overall water quality during construction.	Requires lowering of Horsetooth Reservoir, may impact water quality -	Minimal water quality impacts during construction anticipated +	Minimal water quality impacts during construction anticipated +
<b>Environmental, Social and Cultural Resources</b>				
<b>Potential Environmental Impacts</b>	Extent of potential environmental impacts associated with the alternative.	Lowering of reservoir may have environmental impacts -	Conveyance pipeline construction may have associated environmental impacts +/-	Minimal environmental impact +
<b>Potential Social and Cultural Impacts</b>	Extent of potential social and cultural resource impacts associated with the alternative.	Social impacts during construction, potential cultural resource impacts for temporary access road -	Temporary impacts only, long-term impacts minimal +/-	Minimal impacts +

Criteria	Description	Alternative 1-Soldier Canyon Auxiliary Outlet Works	Alternative 2-Horsetooth Dam Outlet Works Tie-in	Alternative 3-Hanson Supply Canal Pump Station
<b>Permitting and Approvals</b>				
<b>Environmental Permitting Requirements</b>	Extent of anticipated permitting and approvals required for the alternative.	Environmental and cultural clearances may be required for construction -	Environmental and cultural clearances may be required for construction -	Minimal environmental and cultural clearances anticipated (previous site of temporary pump station) +
<b>Reclamation Coordination/Approval</b>	Is coordination and approval from Reclamation Required?	Approval required -	Approval required +/-	Alternative does not impact existing Reclamation facilities, no approval required +
<b>Coordination with Stakeholders</b>	Requirements related to Stakeholder input.	Requires coordination with multiple stakeholders . -	??? +	??? +
<b>ROW and Property Acquisition Requirements</b>	Requirements for ROW and property acquisition associated with the alternative.	None required +	Requires obtaining temporary construction easements and permanent right-of-way on private property -	Property for pump station is not owned by Northern and will need to be acquired +/-

Criteria	Description	Alternative 1-Soldier Canyon Auxiliary Outlet Works	Alternative 2-Horsetooth Dam Outlet Works Tie-in	Alternative 3-Hanson Supply Canal Pump Station
<b>Operational Considerations and Long-term Impacts</b>				
<b>Redundancy (Meets Purpose and Need)</b>	Ability to provide a reliable alternative and redundant water source to all Stakeholders. Does one alternative better meet the needs of all water users compared to others.	New outlet could become primary outlet for Horsetooth releases +	Provides alternative delivery to PVP +	Water deliveries could be impacted during winter operations, facility would only be utilized during emergency operations +
<b>Reliability of Water Deliveries</b>	Criteria used to evaluate the overall reliability of water deliveries including seasonal reliability.	New outlet could serve as a reliable primary outlet from Horsetooth Reservoir +	Winter operations could impact deliveries +	Emergency use only, limited water deliveries during winter -
<b>Operation and Maintenance Requirements</b>	Requirements for operation and maintenance of the proposed alternative.	Requires maintenance of gates, tower, tunnel and access +/-	Requires winter operations of penstock +	Requires operation and maintenance of a pump station, winter operations difficult due to freezing of Hansen supply canal, potential sediment and debris issues -
<b>Value Added Opportunities</b>	Criteria used to rank the overall opportunity of the alternative for future expansion of water deliveries and use by additional users.	Ability to increase water deliveries based on size of outlet conduit, outlet could be primary outlet from Horsetooth, ability to draw water from different levels in the reservoir +	Ability to increase water deliveries based on size of outlet conduit, provisions for providing low flow regulating valve +/-	Capacity limited by pump sizes, used only in emergency situations -
<b>Integration into Existing Operations</b>	How does the proposed modification fit into the existing operations and how often is the facility used.	??? +	??? +	??? -
<b>Operational Flexibility</b>	Ability to provide water to stakeholders.	Provides additional outlet from Horsetooth Reservoir at varying water elevations +	Provides for low flow regulating valve on Horsetooth Dam Outlet Works +	Minimal operational flexibility, used in emergency situations only; requires significant operation and maintenance -

## Conclusions and Recommendations

1. All of the alternatives evaluated meet the purpose and need as outlined by Northern Water.
2. Alternative 1: Soldier Canyon Auxiliary Outlet Works
  - Most cost-effective alternative
  - Redundant means of water delivery from Horsetooth Reservoir at Soldier Canyon
  - Require a tunnel outlet
  - Requires lowering of the reservoir
3. Alternative 2: Horsetooth Dam Outlet Works Tie-in
  - Requires modification of the existing Horsetooth Dam outlet works
  - Requires construction of a nearly 2-mile long pipeline to the PVP
  - Requires new easements and may have additional unidentified environmental impacts.
4. Alternative 3: Hansen Supply Canal Pump Station
  - Does not require any modifications to the existing Horsetooth Reservoir dams
  - Highest Construction Cost



# Schedule to Complete

Item	Status
Draft Alternatives Evaluation Report	May 16, 2023
Meetings with Key Stakeholders	May 19, 2023
Planning Session Board Meeting	June 1, 2023
Final Alternatives Evaluation Report	End June, 2023

# SOLDIER CANYON FILTER PLANT

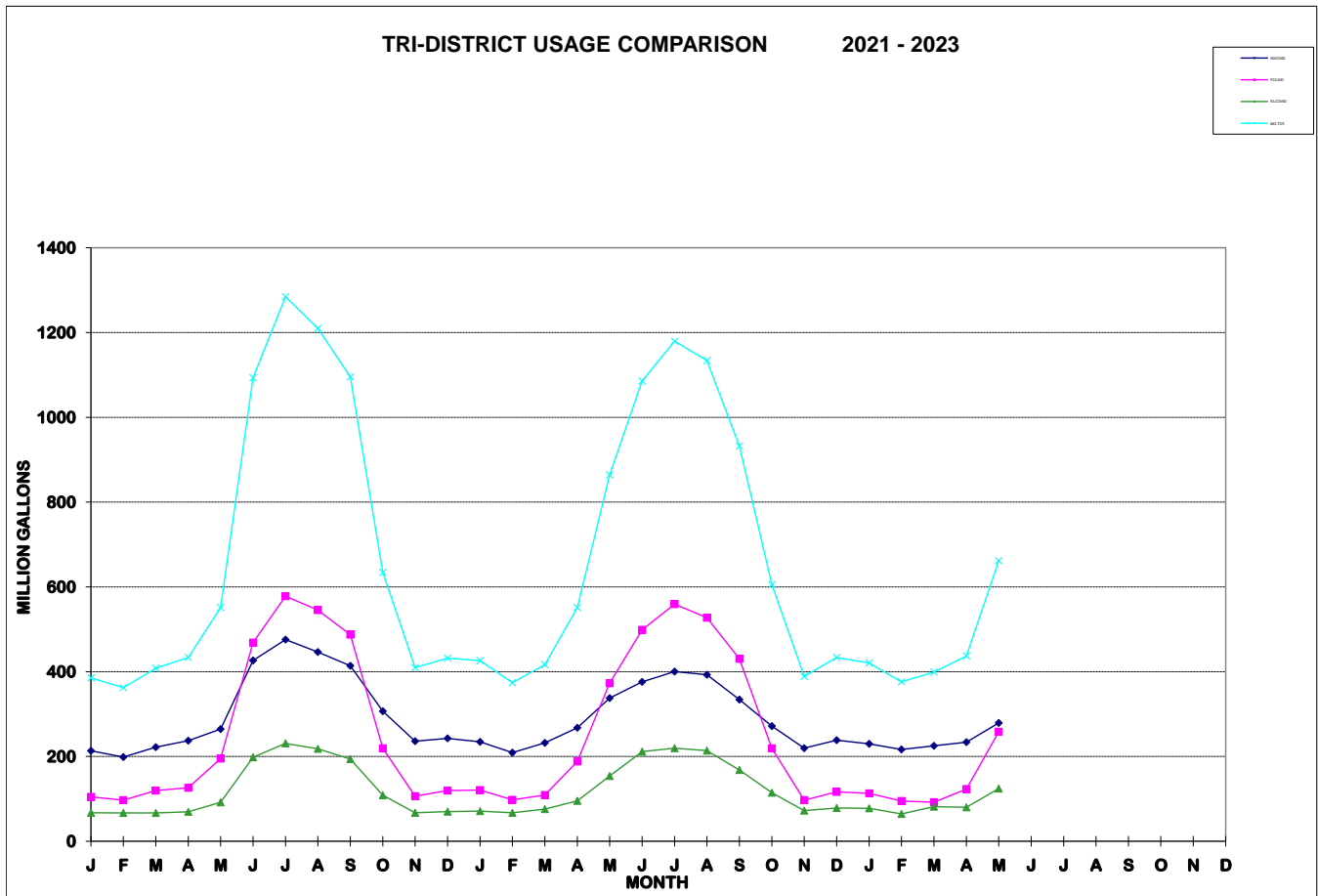
## 3 YEAR COMPARITIVE USAGE

### TRI-DISTRICTS

2021 - 2023

[3yruse2003.xls]

MONTH	NWCWD			FCLWD			ELCOWD			MO. TOTAL		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
JAN.	213.232	234.429	229.737	104.782	120.573	113.018	67.179	71.023	77.609	385.193	426.025	420.364
FEB.	198.610	209.077	216.632	96.767	97.666	95.005	66.857	67.231	64.464	362.234	373.974	376.101
MAR.	221.902	232.206	225.289	119.593	108.830	92.041	66.593	75.633	81.548	408.088	416.669	398.878
APR.	237.188	267.526	233.848	126.389	188.202	122.963	69.689	95.364	80.160	433.266	551.092	436.971
MAY	264.431	337.491	278.952	195.029	372.881	258.403	91.809	153.949	124.410	551.269	864.321	661.765
JUN.	426.419	375.998		468.780	498.690		198.058	211.301		1093.257	1085.989	0.000
JUL.	475.675	400.401		577.994	559.459		230.767	219.816		1284.436	1179.676	0.000
AUG.	446.326	392.969		545.214	527.105		218.222	213.667		1209.762	1133.741	0.000
SEP.	414.085	334.021		487.309	430.478		193.749	167.893		1095.143	932.392	0.000
OCT.	306.612	271.670		219.058	219.380		108.798	114.438		634.468	605.488	0.000
NOV.	236.168	219.703		106.260	96.875		67.336	72.121		409.764	388.699	0.000
DEC.	242.592	238.439		119.446	116.273		69.906	78.550		431.944	433.262	0.000
YR.TOT	3683.240	3513.930	1184.458	3166.621	3336.412	681.430	1448.963	1540.986	428.191	8298.824	8391.328	2294.079







# Reporting and insights from 2022 audit:

Soldier Canyon Water Treatment  
Authority

December 31, 2022

# Executive summary

June \_\_, 2023

Board of Directors  
Soldier Canyon Water Treatment Authority  
4424 LaPorte Avenue  
Fort Collins, CO 80521

We have completed our audit of the financial statements of Soldier Canyon Water Treatment Authority (the Authority) for the year ended December 31, 2022, and have issued our report thereon dated June \_\_, 2023. This letter presents communications required by our professional standards.

Your audit should provide you with confidence in your financial statements. The audit was performed based on information obtained from meetings with management, data from your systems, knowledge of your Soldier Canyon Water Treatment Authority's operating environment and our risk assessment procedures. We strive to provide you clear, concise communication throughout the audit process and of the final results of our audit.

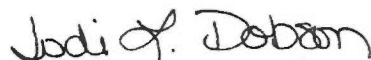
Additionally, we have included information on key risk areas Soldier Canyon Water Treatment Authority should be aware of in your strategic planning. We are available to discuss these risks as they relate to your organization's financial stability and future planning.

If you have questions at any point, please connect with us:

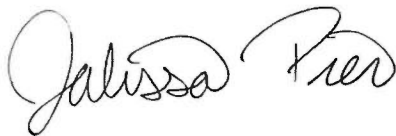
- Jodi Dobson, Partner: [jodi.dobson@bakertilly.com](mailto:jodi.dobson@bakertilly.com) or +1 (608) 240 2469
- Jalissa Pier, Manager: [jalissa.pier@bakertilly.com](mailto:jalissa.pier@bakertilly.com) or +1 (608) 240 2601

Sincerely,

Baker Tilly US, LLP



Jodi Dobson, CPA, Partner



Jalissa Pier, CPA, Manager



# Responsibilities

## Our responsibilities

As your independent auditor, our responsibilities include:

- Planning and performing the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement. Reasonable assurance is a high level of assurance.
- Assessing the risks of material misstatement of the financial statements, whether due to fraud or error. Included in that assessment is a consideration of the Authority's internal control over financial reporting.
- Performing appropriate procedures based upon our risk assessment.
- Evaluating the appropriateness of the accounting policies used and the reasonableness of significant accounting estimates made by management.
- Forming and expressing an opinion based on our audit about whether the financial statements prepared by management, with the oversight of the board of directors:
  - Are free from material misstatement
  - Present fairly, in all material respects and in accordance with accounting principles generally accepted in the United States of America
- Our audit does not relieve management or the board of directors of their responsibilities.

We are also required to communicate significant matters related to our audit that are relevant to the responsibilities of the board of directors, including:

- Internal control matters
- Qualitative aspects of the Authority's accounting practice including policies, accounting estimates and financial statement disclosures
- Significant unusual transactions
- Significant difficulties encountered
- Disagreements with management
- Circumstances that affect the form and content of the auditors' report
- Audit consultations outside the engagement team
- Corrected and uncorrected misstatements
- Other audit findings or issues

# Audit status

## Significant changes to the audit plan

There were no significant changes made to either our planned audit strategy or to the significant risks and other areas of emphasis identified during the performance of our risk assessment procedures.

# Audit approach and results

## Planned scope and timing

### Audit focus

Based on our understanding of the Authority and environment in which you operate, we focused our audit on the following key areas:

- Key transaction cycles
- Areas with significant estimates
- Implementation of new accounting standards

Our areas of audit focus were informed by, among other things, our assessment of materiality. Materiality in the context of our audit was determined based on specific qualitative and quantitative factors combined with our expectations about the Authority’s current year results.

## Key areas of focus and significant findings

### Significant risks of material misstatement

A significant risk is an identified and assessed risk of material misstatement that, in the auditor’s professional judgment, requires special audit consideration. Within our audit, we focused on the following areas below.

Significant risk areas	Testing approach	Conclusion
Management override of controls	Incorporate unpredictability into audit procedures, emphasize professional skepticism and utilize audit team with industry expertise	Procedures identified provided sufficient evidence for our audit opinion
Improper revenue recognition due to fraud	Confirmation or validation of certain revenues supplemented with detailed predictive analytics based on non-financial data and substantive testing of related receivables	Procedures identified provided sufficient evidence for our audit opinion

### Other areas of emphasis

We also focused on other areas that did not meet the definition of a significant risk, but were determined to require specific awareness and a unique audit response.

Other areas of emphasis		
Cash and investments	Revenues and receivables	General disbursements
Payroll	Pension and OPEB liabilities	
Capital assets including infrastructure	Net position calculations	Financial reporting and required disclosures

## Internal control matters

We considered the Authority's internal control over financial reporting as a basis for designing our audit procedures for the purpose of expressing an opinion on the financial statements. We are not expressing an opinion on the effectiveness of the Authority's internal control.

Our consideration of internal control was for the limited purpose described in the preceding paragraph and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and, therefore, material weaknesses or significant deficiencies may exist that were not identified.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis.

A material weakness is a deficiency or combination of deficiencies in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. We identified the following deficiencies as material weaknesses:

- **Inadequate segregation of duties**

A properly designed system of internal control includes adequate staffing as well as policies and procedures to properly segregate duties. This includes systems that are designed to limit the access or control of any one individual to your government's assets or accounting records, and to achieve a higher likelihood that errors or irregularities in your accounting processes would be discovered by your staff in a timely manner.

At this time, due to staffing and financial limitations, the proper internal controls are not in place to achieve adequate segregation of duties. As a result, errors, irregularities or fraud could occur as part of the financial reporting process that may not be discovered by someone in your organization. Therefore, we are reporting a material weakness related to the internal control environment.

- **Missing key controls**

There are certain controls that are not currently in place related to significant transaction cycles. As a result, there is a risk that erroneous or unauthorized transactions or misstatements could occur without the knowledge of management or the governing body. Our recommendations for strengthening controls are listed below.

Controls over utility billing

- Persons involved in the cash receipting process should be independent of other billing duties.

Controls over monthly and year-end accounting

- Adjusting journal entries and supporting documentation should be reviewed and approved by an appropriate person who is not the original preparer.
- Account reconciliations prepared throughout the year should be performed by someone independent of processing transactions in the account.
- Year-end reconciliations (retainages, payroll accruals) should be reviewed and approved by someone other than the preparer.

Since the controls listed above or other compensating controls are not currently in place, errors or irregularities could occur as part of the accounting processes that might not be discovered by management or the governing body. Therefore, the absence of these controls is considered to be a material weakness.

We recommend that a designated employee review the segregation of duties, risks, and these potential controls and determine whether additional controls should be implemented. This determination should take into consideration a cost / benefit analysis.

- **Financial statement close process**

Properly designed systems of internal control provide your organization with the ability to process and record accurate monthly and year-end transactions and annual financial reports.

Our audit includes a review and evaluation of the internal controls relating to financial reporting. Common attributes of a properly designed system of internal control for financial reporting are as follows:

- There is adequate staffing to prepare financial reports throughout the year and at year-end.
- Material misstatements are identified and corrected during the normal course of duties.
- Complete and accurate financial statements, including footnotes, are prepared.
- Financial reports are independently reviewed for completeness and accuracy.

Our evaluation of the internal controls over financial reporting has identified control deficiencies that are considered material weakness surrounding the preparation of financial statements and footnotes, adjusting journal entries identified by the auditors, and an independent review of financial reports.

Management has not prepared financial statements that are in conformity with generally accepted accounting principles. In addition, material misstatements in the general ledger were identified during the financial audit.



## Required communications

### Qualitative aspect of accounting practices

- Accounting policies: Management is responsible for the selection and use of appropriate accounting policies. In accordance with the terms of our engagement letter, we have advised management about the appropriateness of accounting policies and their application. The significant accounting policies used by the Authority are described in Note 1 to the financial statements. No new accounting policies were adopted and the application of existing accounting policies was not changed during 2022. We noted no transactions entered into by the Authority during the year for which accounting policies are controversial or for which there is a lack of authoritative guidance or consensus or diversity in practice.
- Accounting estimates: Accounting estimates, including fair value estimates, are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements, the degree of subjectivity involved in their development and because of the possibility that future events affecting them may differ significantly from those expected. The following estimates are of most significance to the financial statements:

Estimate	Management's process to determine	Baker Tilly's conclusions regarding reasonableness
Accrued compensated absences	Evaluation of hours earned and accumulated in accordance with employment policies and average wage per hour rates	Reasonable in relation to the financial statements as a whole
Net pension asset/liability and related deferrals	Evaluation of information provided by the Public Employees' Retirement Association of Colorado	Reasonable in relation to the financial statements as a whole
Net OPEB liability and related deferrals	Evaluation of information provided by the Public Employees' Retirement Association of Colorado	Reasonable in relation to the financial statements as a whole
Depreciation/Amortization	Evaluate estimated useful life of the asset and original acquisition value	Reasonable in relation to the financial statements as a whole

There have been no significant changes made by management to either the processes used to develop the particularly sensitive accounting estimates, or to the significant assumptions used to develop the estimates, noted above

- Financial statement disclosures: The disclosures in the financial statements are neutral, consistent and clear.

### **Significant unusual transactions**

There have been no significant transactions that are outside the normal course of business for the Authority or that otherwise appear to be unusual due to their timing, size or nature.

### **Significant difficulties encountered during the audit**

We encountered no significant difficulties in dealing with management and completing our audit.

### **Disagreements with management**

Professional standards define a disagreement with management as a matter, whether or not resolved to our satisfaction, concerning a financial accounting, reporting, or auditing matter that could be significant to the financial statements or the auditors' report. We are pleased to report that no such disagreements arose during the course of our audit.

### **Audit report**

There have been no departures from the auditors' standard report.

### **Audit consultations outside the engagement team**

We encountered no difficult or contentious matters for which we consulted outside of the engagement team.

### **Uncorrected misstatements and corrected misstatements**

Professional standards require us to accumulate misstatements identified during the audit, other than those that are clearly trivial and to communicate accumulated misstatements to management. Management is in agreement with the misstatements we have identified, and they have been corrected in the financial statements. The schedule within the attachments summarizes the material corrected misstatements, that, in our judgment, may not have been detected except through our auditing procedures. The internal control matters section of this report describes the effects on the financial reporting process indicated by the corrected misstatements, other than those that we consider to be of a lesser magnitude than significant deficiencies and material weaknesses.

### **Other audit findings or issues**

We encountered no other audit findings or issues that require communication at this time.

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as the Authority's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

### **Management's consultations with other accountants**

In some cases, management may decide to consult with other accountants about auditing and accounting matters. Management informed us that, and to our knowledge, there were no consultations with other accountants regarding auditing or accounting matters.

### **Written communications between management and Baker Tilly**

The attachments include copies of other material written communications, including a copy of the management representation letter.

## **Compliance with laws and regulations**

We did not identify any non-compliance with laws and regulations during our audit.

## **Fraud**

We did not identify any known or suspected fraud during our audit.

## **Going concern**

Pursuant to professional standards, we are required to communicate to you, when applicable, certain matters relating to our evaluation of the Authority's ability to continue as a going concern for a reasonable period of time but no less than 12 months from the date of the financial statements, including the effects on the financial statements and the adequacy of the related disclosures, and the effects on the auditor's report. No such matters or conditions have come to our attention during our engagement.

## **Independence**

We are not aware of any relationships between Baker Tilly and the Authority that, in our professional judgment, may reasonably be thought to bear on our independence.

## **Related parties**

We did not have any significant findings or issues arise during the audit in connection with the Authority's related parties.

## **Other matters**

We applied certain limited procedures to the required supplementary information (RSI) that supplements the basic financial statements. Our procedures consisted of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We did not audit the RSI and do not express an opinion or provide any assurance on the RSI.

We were engaged to report on the supplementary information which accompanies the financial statements but is not RSI. With respect to the supplementary information, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with [accounting principles generally accepted in the United States of America or the modified cash basis of accounting], the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

## Nonattest services

The following nonattest services were provided by Baker Tilly:

- Financial statement preparation
- Adjusting journal entries

None of these nonattest services constitute an audit under generally accepted auditing standards, including *Government Auditing Standards*.

# Audit committee resources

Visit our resource page for regulatory updates, trending challenges and opportunities in your industry and other timely updates.

Visit the resource page at <https://www.bakertilly.com/insights/audit-committee-resource-page>.



# Management representation letter

June \_\_, 2023

Baker Tilly US, LLP  
4807 Innovative Lane  
Madison, WI 53707-7398

Dear Baker Tilly US, LLP:

We are providing this letter in connection with your audit of the financial statements of the Soldier Canyon Water Treatment Authority as of December 31, 2022 and for the years then ended for the purpose of expressing an opinion as to whether the financial statements present fairly, in all material respects, the financial position of the Soldier Canyon Water Treatment Authority and the respective changes in financial position and cash flows in conformity with accounting principles generally accepted in the United States of America (GAAP). We confirm that we are responsible for the fair presentation of the previously mentioned financial statements in conformity with accounting principles generally accepted in the United States of America. We are also responsible for adopting sound accounting policies, establishing and maintaining internal control over financial reporting, and preventing and detecting fraud.

Certain representations in this letter are described as being limited to matters that are material. Items are considered material, regardless of size, if they involve an omission or misstatement of accounting information that, in the light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would be changed or influenced by the omission or misstatement. An omission or misstatement that is monetarily small in amount could be considered material as a result of qualitative factors.

We confirm, to the best of our knowledge and belief, the following representations made to you during your audit.

**Financial Statements**

- 1) We have fulfilled our responsibilities, as set out in the terms of the audit engagement letter dated July 28, 2022.
- 2) The financial statements referred to above are fairly presented in conformity with accounting principles generally accepted in the United States of America. We have engaged you to advise us in fulfilling that responsibility. The financial statements include all properly classified funds of the Authority required by accounting principles generally accepted in the United States of America to be included in the financial reporting entity.
- 3) We acknowledge our responsibility for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

- 4) We acknowledge our responsibility for the design, implementation, and maintenance of internal control to prevent and detect fraud.
- 5) Significant assumptions we used in making accounting estimates, including those measured at fair value, if any, are reasonable.
- 6) All events subsequent to the date of the financial statements and for which accounting principles generally accepted in the United States of America require adjustment or disclosure have been adjusted or disclosed. No other events, including instances of noncompliance, have occurred subsequent to the financial statement date and through the date of this letter that would require adjustment to or disclosure in the aforementioned financial statements.
- 7) All material transactions have been recorded in the accounting records and are reflected in the financial statements.
- 8) All known audit and bookkeeping adjustments have been included in our financial statements, and we are in agreement with those adjustments.
- 9) We are not aware of any known actual, possible, pending, or threatened litigation, claims, or assessments or unasserted claims or assessments that are required to be accrued or disclosed in the financial statements in accordance with accounting principles generally accepted in the United States of America, and we have not consulted a lawyer concerning litigation, claims, or assessments.

#### **Information Provided**

- 10) We have provided you with:
  - a) Access to all information, of which we are aware, that is relevant to the preparation and fair presentation of the financial statements, such as financial records and related data, documentation, and other matters.
  - b) Additional information that you have requested from us for the purpose of the audit.
  - c) Unrestricted access to persons within the entity from whom you determined it necessary to obtain audit evidence.
  - d) Minutes of the meetings of the Board of Directors or summaries of actions of recent meetings for which minutes have not yet been prepared.
- 11) We have disclosed to you results of our assessment of the risk that the financial statements may be materially misstated as a result of fraud.
- 12) We have no knowledge of any fraud or suspected fraud that affects the entity and involves:
  - a) Management,
  - b) Employees who have significant roles in internal control, or

- c) Others where the fraud could have a material effect on the financial statements.
- 13) We have no knowledge of any allegations of fraud or suspected fraud affecting the entity received in communications from employees, former employees, regulators, or others.
- 14) We have disclosed to you all known instances of noncompliance or suspected noncompliance with provisions of laws, regulations, contracts, or grant agreements, or abuse, whose effects should be considered when preparing financial statements.
- 15) We have disclosed to you the names of our related parties and all the related party relationships and transactions, including side agreements, of which we are aware.

**Other**

- 16) There have been no communications from regulatory agencies concerning noncompliance with, or deficiencies in, financial reporting practices.
- 17) We have taken timely and appropriate steps to remedy fraud, noncompliance with provisions of laws, regulations, contracts or grant agreements, or abuse that you have reported to us.
- 18) We have a process to track the status of audit findings and recommendations.
- 19) We have identified to you any investigations or legal proceedings that have been initiated with respect to the period under audit.
- 20) The Authority has no plans or intentions that may materially affect the carrying value or classification of assets, deferred outflows of resources, liabilities, deferred inflows of resources or net position.
- 21) We are responsible for compliance with federal, state, and local laws, regulations, and provisions of contracts applicable to us, including tax or debt limits, debt contracts, and IRS arbitrage regulations; and we have identified and disclosed to you all federal, state, and local laws, regulations and provisions of contracts and grant agreements that we believe have a direct and material effect on the determination of financial statement amounts or other financial data significant to the audit objectives, including legal and contractual provisions for reporting specific activities in separate funds.
- 22) There are no:
  - a) Violations or possible violations of budget ordinances, federal, state, and local laws or regulations (including those pertaining to adopting, approving and amending budgets), provisions of contracts and grant agreements, tax or debt limits, and any related debt covenants whose effects should be considered for disclosure in the financial statements or as a basis for recording a loss contingency, or for reporting on noncompliance, except those already disclosed in the financial statement, if any.
  - b) Other liabilities or gain or loss contingencies that are required to be accrued or disclosed by accounting principles generally accepted in the United States of America.
  - c) Rates being charged to customers other than the rates as authorized by the applicable authoritative body.
  - d) Violations of restrictions placed on revenues as a result of bond resolution covenants such as revenue distribution or debt service funding.

23) In regards to the nonattest services performed by you listed below, we acknowledge our responsibility related to these nonattest services and have 1) accepted all management responsibility; 2) designated an individual with suitable skill, knowledge, or experience to oversee the services; 3) evaluated the adequacy and results of the services performed, and 4) accepted responsibility for the results of the services.

a) Financial statement preparation

b) Adjusting journal entries

None of these nonattest services constitute an audit under generally accepted auditing standards, including *Government Auditing Standards*.

24) The Soldier Canyon Water Treatment Authority has satisfactory title to all owned assets, and there are no liens or encumbrances on such assets nor has any asset been pledged as collateral.

25) The Soldier Canyon Water Treatment Authority has complied with all aspects of contractual agreements that would have a material effect on the financial statement in the event of noncompliance.

26) Components of net position (net investment in capital assets; restricted; and unrestricted) are properly classified and, if applicable, approved.

27) The Soldier Canyon Water Treatment Authority has no derivative financial instruments such as contracts that could be assigned to someone else or net settled, interest rate swaps, collars or caps.

28) Deposits and investments are properly classified, valued, and disclosed (including risk disclosures, collateralization agreements, valuation methods, and key inputs, as applicable).

29) Provisions, when material, has been made to reduce excess or obsolete inventories to their estimated net realizable value.

30) Capital assets, including infrastructure and intangible assets, are properly capitalized, reported, and, if applicable, depreciated/amortized. Any known impairments have been recorded and disclosed.

31) We have appropriately disclosed the Soldier Canyon Water Treatment Authority's policy regarding whether to first apply restricted or unrestricted resources when an expense is incurred for purposes for which both restricted and unrestricted net position are available and have determined that net position were properly recognized under the policy.

32) We acknowledge our responsibility for the required supplementary information (RSI). The RSI is measured and presented within prescribed guidelines and the methods of measurement and presentation have not changed from those used in the prior period. We have disclosed to you any significant assumptions and interpretations underlying the measurement and presentation of the RSI.

33) With respect to the supplementary information, (SI):

a) We acknowledge our responsibility for presenting the SI in accordance with accounting principles generally accepted in the United States of America, and we believe the SI, including its form and content, is fairly presented in accordance with accounting principles generally accepted in the United States of America. The methods of measurement and presentation of the SI have not changed from those used in the prior period, and we have disclosed to you any significant assumptions or interpretations underlying the measurement and presentation of the supplementary information.

- b) If the SI is not presented with the audited financial statements, we will make the audited financial statements readily available to the intended users of the supplementary information no later than the date we issue the supplementary information and the auditor's report thereon.
- 34) We have reviewed existing contracts and determined there are no items requiring accounting or reporting as leases.
- 35) The auditing standards define an annual report as "a document, or combination of documents, typically prepared on an annual basis by management or those charged with governance in accordance with law, regulation, or custom, the purpose of which is to provide owners (or similar stakeholders) with information on the entity's operations and the financial results and financial position as set out in the financial statements." Among other items, an annual report contains, accompanies, or incorporates by reference the financial statements and the auditors' report thereon. We confirm that we do not prepare and have no plans to prepare an annual report.

Sincerely,

Soldier Canyon Water Treatment Authority

Signed: \_\_\_\_\_

Signed: \_\_\_\_\_

Signed: \_\_\_\_\_



# Client service team



**Jodi Dobson, CPA  
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# Accounting changes relevant to Soldier Canyon Water Treatment Authority

## Future accounting standards update

GASB Statement Number	Description	Potentially Impacts you	Effective Date
94	Public-Private and Public-Public Partnerships and Availability Payment Arrangements	✓	12/31/23
96	Subscription-Based Information Technology Arrangements	✓	12/31/23
99	Omnibus 2022	✓	12/31/23
100	Accounting Changes and Error Corrections	✓	12/31/24
101	Compensated Absences	✓	12/31/24

\*The statements listed above through Statement No. 93 had their required effective dates postponed by one year with the issuance of Statement No. 95, *Postponement of Effective Dates of Certain Authoritative Guidance*, with the exception of Statement No. 87 which was postponed by one and a half years. The effective date reflected above is the required revised implementation date.

Further information on upcoming [GASB pronouncements](#).

### Preparing for the new conduit debt reporting

Conduit debt includes arrangements where there are three separate parties involved including a third party that is obligated for payment, a debt holder or lender and an issuing party which is often a government. This standard provides additional criteria for identifying and classifying conduit debt with the intent of providing consistency in how the debt is recorded and reported in governmental financial statements. The Authority should identify any existing debt arrangements involving third-party obligors and evaluate how those arrangements will be reported under the new standard in order to determine the potential impact of this standard on future financial reporting.

### Determining if GASB 94 applies for your organization

GASB 94, *Public-Private and Public-Public Partnerships and Availability Payment Arrangements* provides guidance related to public-private and public-public partnerships (PPP) and availability payment arrangements (APA).

A PPP is an arrangement in which an entity contracts with an operator to provide public services by conveying control of the right to operate or use infrastructure or other capital asset. A common example of PPP is a service concession arrangement.

An APA is an arrangement in which an entity compensates an operator for services that may include designing, constructing, financing, maintaining, or operating an asset.

The Authority should start to identify any contracts that could meet either definition to ensure they are reviewed for applicability and accounted for correctly when the standard is effective. Initial steps include reviewing contracts that didn't meet the definition of a lease under GASB 87 and identifying any other agreements where the organization contracts with or partners with another entity to provide services.

### **Future accounting for subscription-based IT arrangements**

Subscription-based IT arrangements include contracts that convey control of the right to use another party's IT software. It would not include any licensing arrangements that provide a perpetual license, which would still be accounted for as an intangible asset. Subscription-based IT arrangements are becoming more and more popular with IT vendors. This standard mirrors the new lease standard. The Authority will be able to utilize the systems put into place to implement the lease standard to properly account for these contracts. Common examples of these contracts in the utility industry include:

- Leasing space in the cloud
- GIS systems
- SCADA systems
- Some work order or inventory systems as well as some general ledger or billing systems

The Authority should work with its IT department and department managers to determine a population listing of contracts that would fall under this standard to determine the potential future impact to financial reporting.

# Material corrected misstatements

Description	Opinion unit	Amount
Entry to true up pension related balances	Authority	\$1,596,442

The remaining misstatements that were identified and corrected by management were not material individually or in the aggregate to the financial statements taken as a whole.

# Two-way audit communications

As part of our audit of your financial statements, we are providing communications to you throughout the audit process. Auditing requirements provide for two-way communication and are important in assisting the auditor and you with more information relevant to the audit.

As this past audit is concluded, we use what we have learned to begin the planning process for next year's audit. It is important that you understand the following points about the scope and timing of our next audit:

- a. We address the significant risks of material misstatement, whether due to fraud or error, through our detailed audit procedures.
- b. We will obtain an understanding of the five components of internal control sufficient to assess the risk of material misstatement of the financial statements whether due to error or fraud, and to design the nature, timing and extent of further audit procedures. We will obtain a sufficient understanding by performing risk assessment procedures to evaluate the design of controls relevant to an audit of financial statements and to determine whether they have been implemented. We will use such knowledge to:
  - Identify types of potential misstatements.
  - Consider factors that affect the risks of material misstatement.
  - Design tests of controls, when applicable, and substantive procedures.
- c. We will not express an opinion on the effectiveness of internal control over financial reporting or compliance with laws, regulations and provisions of contracts or grant programs.
- d. The concept of materiality recognizes that some matters, either individually or in the aggregate, are important for fair presentation of financial statements in conformity with generally accepted accounting principles while other matters are not important. In performing the audit, we are concerned with matters that, either individually or in the aggregate, could be material to the financial statements. Our responsibility is to plan and perform the audit to obtain reasonable assurance that material misstatements, whether caused by errors or fraud, are detected.

Our audit will be performed in accordance with auditing standards generally accepted in the United States of America

We are very interested in your views regarding certain matters. Those matters are listed here:

- a. We typically will communicate with your top level of management unless you tell us otherwise.
- b. We understand that the governing board has the responsibility to oversee the strategic direction of your organization, as well as the overall accountability of the entity. Management has the responsibility for achieving the objectives of the entity.
- c. We need to know your views about your organization's objectives and strategies, and the related business risks that may result in material misstatements.
- d. We anticipate that the Authority will receive an unmodified opinion on its financial statements.
- e. Which matters do you consider warrant particular attention during the audit, and are there any areas where you request additional procedures to be undertaken?
- f. Have you had any significant communications with regulators or grantor agencies?
- g. Are there other matters that you believe are relevant to the audit of the financial statements?

Also, is there anything that we need to know about the attitudes, awareness and actions of the governing body concerning:

- a. The entity's internal control and its importance in the entity, including how those charged with governance oversee the effectiveness of internal control?
- b. The detection or the possibility of fraud?

We also need to know if you have taken actions in response to developments in financial reporting, laws, accounting standards, governance practices, or other related matters, or in response to previous communications with us.

With regard to the timing of our audit, here is some general information. If necessary, we may do preliminary financial audit work during the months of October-December, and sometimes early in January. Our final financial fieldwork is scheduled during the spring to best coincide with your readiness and report deadlines. After fieldwork, we wrap up our financial audit procedures at our office and may issue drafts of our report for your review. Final copies of our report and other communications are issued after approval by your staff. This is typically 6-12 weeks after final fieldwork, but may vary depending on a number of factors.

Keep in mind that while this communication may assist us with planning the scope and timing of the audit, it does not change the auditor's sole responsibility to determine the overall audit strategy and the audit plan, including the nature, timing and extent of procedures necessary to obtain sufficient appropriate audit evidence.

We realize that you may have questions on what this all means, or wish to provide other feedback. We welcome the opportunity to hear from you.



# **Soldier Canyon Water Treatment Authority**

Financial Statements and  
Supplementary Information

June 30, 2022 and 2021

# **Soldier Canyon Water Treatment Authority**

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June 30, 2022 and 2021

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## **Independent Auditors' Report**

To the Board of Directors of  
Soldier Canyon Water Treatment Authority

### **Opinion**

We have audited the accompanying financial statements of the Soldier Canyon Water Treatment Authority (the Authority), as of and for the year ended December 31, 2022, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the financial position of the Authority as of December 31, 2022, and the changes in financial position and cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America

### **Basis for Opinion**

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Authority and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### **Other Matters**

The financial statements of the Authority as of and for the year ended December 31, 2021, were audited by other auditors whose report dated May 17, 2022, expressed an unmodified opinion on those statements.

### **Responsibilities of Management for the Financial Statements**

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America; and for the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that rise substantial doubt about the Authority's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

## **Auditors' Responsibilities for the Audit of the Financial Statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Authority's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings and certain internal control-related matters that we identified during the audit.

## **Required Supplementary Information**

Accounting principles generally accepted in the United States of America require that the required supplementary information, as listed in the table of contents be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

## **Supplementary Information**

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The Schedule of Revenues and Expenditures - Budget and Actual (Budgetary Basis), is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is their responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The 2022 information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information for the year ended December 31, 2022 is fairly stated in all material respects, in relation to the basic financial statements as a whole.

The District's basic financial statements for the year ended December 31, 2021, were audited by other auditors whose reports expressed an unqualified opinion on the respective financial statements of the financial statements. Their report on the 2021 Schedule of Revenues and Expenditures - Budget and Actual (Budgetary Basis) stated that, in their opinion, such information was fairly stated in all material respects in relation to the basic financial statements for the year ended December 31, 2021, as a whole.

Madison, Wisconsin  
June \_\_, 2023

# Soldier Canyon Water Treatment Authority

## Management's Discussion and Analysis

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Management's discussion and analysis is designed to provide an analysis of the Soldier Canyon Water Treatment Authority's (the "Authority") financial condition and operating results and to also inform the reader on the Authority's financial issues and activities.

The Management's Discussion and Analysis ("MD&A") should be read in conjunction with the Authority's basic financial statements (beginning on page 7).

### 2022 Highlights - Business-Type Activities

- As of December 31, 2022, the Authority's net position was \$63,948,600, representing a decrease of \$559,820 when compared to the balance as of December 31, 2021.
- Total operating revenues increased to \$4,601,247 during 2022, which was \$39,554 more than in 2021.
- Total operating expenses were \$7,007,760 for 2022 representing an increase of \$1,797,191 when compared to 2021.
- Net capital assets were \$62,435,510 in 2022 compared to \$64,038,510 in 2021 for a decrease of \$1,603,000.
- The Authority has no long-term debt.

### Using this Annual Report

The financial statements included in this annual report are those of a quasi-municipal corporation and a political subdivision of the State of Colorado engaged only in a business-type activity. As an enterprise fund, the Authority's basic financial statements include:

**Statements of Net Position** - report the Authority's current financial resources (short-term spendable resources) with capital assets and long-term obligations (See page 8).

**Statements of Revenues, Expenses and Changes in Net Position** - report the Authority's operating and non-operating revenues, by major source along with operating and non-operating expenses and capital contributions (See page 9).

**Statements of Cash Flows** - report the Authority's cash flows from operating activities, investing, capital and non-capital activities (See page 10).



# Soldier Canyon Water Treatment Authority

## Management's Discussion and Analysis

### Condensed Statement of Net Position

December 31,	2022	2021	2020
Current assets	\$ 3,365,187	\$ 4,530,870	\$ 6,377,106
Noncurrent assets	\$ 221,454		
Capital assets, net	62,435,510	64,038,510	55,001,741
<u>Total assets</u>	<u>66,022,151</u>	<u>68,569,380</u>	<u>61,378,847</u>
Deferred outflows of resources	552,030	624,197	345,391
Current Liabilities	337,566	1,847,089	3,599,017
Long-term liabilities	307,617	1,467,548	1,967,944
<u>Total liabilities</u>	<u>645,183</u>	<u>3,314,637</u>	<u>5,566,961</u>
Deferred inflows of resources	1,980,398	1,370,520	772,047
Net investment in capital assets	62,435,510	62,176,423	55,001,741
Restricted	221,454	-	-
Unrestricted	1,291,636	2,331,997	383,489
<u>Total net position</u>	<u>\$ 63,948,600</u>	<u>\$ 64,508,420</u>	<u>\$ 55,385,230</u>

The net position of the Authority decreased to \$63,948,600 during 2022, a \$559,820 or 0.9% decrease from 2021.

### Review of Revenues

Water charges were \$4,601,247 during 2022. This represents an increase of \$39,554 or 0.9% from 2021.

### Review of Operating Expenses

Years Ending December 31,	2022	2021	2020
Operating Expenses:			
Operating and maintenance	\$ 3,669,585	\$ 3,991,558	\$ 3,611,416
Administrative services	300,333	328,684	214,700
Depreciation	3,037,842	890,327	737,771
<u>Total</u>	<u>\$ 7,007,760</u>	<u>\$ 5,210,569</u>	<u>\$ 4,563,887</u>

In 2022, operations and maintenance expenses were 20.9% under the final budget and down 8.0% from the previous year of \$3,991,558. Considerable staff vacancies caused expenses to decrease compared to the previous year. Depreciation increased to \$3,037,842 in 2022 as compared to \$890,327 in 2021.

# Soldier Canyon Water Treatment Authority

## Management's Discussion and Analysis

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### Capital Contributions and Transfers

The Loveland/Ft. Collins, East Larimer County and North Weld County Water Districts (the "Districts") had combined cash contributions of \$1,770,732 and \$9,765,862 to the Authority during 2022 and 2021. In 2017, the Districts contributed their ownership in Soldier Canyon Filter Plant and related capital assets to the Authority in exchange for specified water treatment capacity. The total capital contributions in 2017 was \$22,665,492.

### Capital Assets

Year Ending December 31,	2022	2021	2020
Land	\$ 83,869	\$ 83,869	\$ 83,869
Construction in progress	150,712	698,358	31,024,555
Filter plant	65,961,559	64,079,649	22,956,531
Equipment	3,062,561	2,961,983	3,831,808
Total	\$ 69,258,701	\$ 67,823,859	\$ 57,896,763

Additions in 2022 and 2021 were:

- Water treatment filter plant, plant expansion and improvements, safety equipment, and general equipment totaling \$1,434,842 and \$9,036,769, respectively.

### Debt and Other Financial Obligations

The Authority has no outstanding debt at December 31, 2022.

### Basic Service Fees, Rates and Changes

The Authority's rates are reviewed and established by the Board of Directors to cover operations and maintenance costs of the Authority.

The Districts are charged based upon the amount of water processed through the system for variable operations and maintenance and their respective capacity share for fixed operations and maintenance and capital. Water used by the districts is billed separately to each district.

### Capital Improvement Program

The Authority's long-range plan revolves around the Master Plan from each of the water districts, which are based upon demand or regulation of water quality.

# Soldier Canyon Water Treatment Authority

## Management's Discussion and Analysis

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The following table sets forth a summary of the Authority's capital assets acquired between 2021 and 2022.

### Capital Projects/Equipment Acquisition Summary (Funded Projects) 2021-2022

	Year	Cost
Electric Forklift	2022	\$ 100,578
SCADA Master Plan	2022	66,286
Filter Replacements	2022	1,327,208
HVAC Upgrades	2022	13,454
Scrubber	2022	297,135
Sludge Conditioning Equipment	2021	259,018
Chlorine Dioxide Batch Tank	2021	20,809
Analyzer	2021	10,780
Fluoride Feed System	2021	39,436
Paddle Flocculators	2021	70,600
Security Improvements	2021	125,802
Chlorine Scrubber	2021	13,816
Tank 1 Recoating	2021	1,367,208
Fencing	2021	10,786
PLC 9 Filter	2021	56,283
2020 Plant Expansion	2021	40,898,029
Safety Equipment	2021	127,321
Grand Total		\$ 44,804,549

### Financial Contract

The Authority's financial statements are designed to present users with a general overview of the Authority's finances and to demonstrate the Authority's accountability. If you have any questions about the report or need additional financial information, please contact our staff at 4424 Laporte Avenue, Fort Collins, Colorado 80521.

**Soldier Canyon Water Treatment Authority**Statements of Net Position  
December 31, 2022 and 2021

	<u>2022</u>	<u>2021</u>
<b>Assets and Deferred Outflows of Resources</b>		
<b>Current Assets</b>		
Cash and cash equivalents	\$ 2,333,492	\$ 2,762,245
Accounts receivable, participants	579,768	1,535,284
Accounts receivable, other	5,474	39,074
Prepaid expenses	217,215	27,153
Inventory of chemicals	229,238	167,114
	<u>3,365,187</u>	<u>4,530,870</u>
<b>Noncurrent Assets</b>		
Restricted assets:		
Net pension asset	221,454	-
Capital assets:		
Capital assets not being depreciated	234,581	604,402
Capital assets being depreciated, net accumulated depreciation	62,200,929	63,434,108
	<u>62,435,510</u>	<u>64,038,510</u>
Total noncurrent assets	62,656,964	64,038,510
Total assets	<u>66,022,151</u>	<u>68,569,380</u>
<b>Deferred Outflows of Resources</b>		
Deferred amounts related to pensions	503,413	601,953
Deferred amounts related to OPEB	48,617	22,244
	<u>552,030</u>	<u>624,197</u>
<b>Liabilities, Deferred Inflows of Resources and Net Position</b>		
<b>Current Liabilities</b>		
Customer deposits	292,070	1,802,333
Accrued payroll liabilities	45,496	45,496
	<u>337,566</u>	<u>1,847,089</u>
<b>Noncurrent Liabilities</b>		
Accrued compensated absences	134,716	107,193
Net pension liability	-	1,194,209
Net OPEB liability	172,901	166,146
	<u>307,617</u>	<u>1,467,548</u>
Total liabilities	<u>645,183</u>	<u>3,314,637</u>
<b>Deferred Inflows of Resources</b>		
Deferred amounts related to pensions	1,919,319	1,310,348
Deferred amounts related to OPEB	61,079	60,172
	<u>1,980,398</u>	<u>1,370,520</u>
<b>Net Position</b>		
Net investment in capital assets	62,435,510	62,176,423
Restricted:		
Pension	221,454	-
Unrestricted	1,291,636	2,331,997
	<u>\$ 63,948,600</u>	<u>\$ 64,508,420</u>

See notes to financial statements

## Soldier Canyon Water Treatment Authority

Statements of Revenues, Expenses and Changes in Net Position  
Years Ended December 31, 2022 and 2021

	<u>2022</u>	<u>2021</u>
<b>Operating Revenues</b>		
Water charges	\$ 4,601,247	\$ 4,561,693
Total operating revenues	<u>4,601,247</u>	<u>4,561,693</u>
<b>Operating Expenses</b>		
Source of supple	57,016	74,179
Water treatment	3,612,569	3,917,379
Administration and general	300,333	328,684
Depreciation	<u>3,037,842</u>	<u>890,327</u>
Total operating expenses	<u>7,007,760</u>	<u>5,210,569</u>
Operating income (loss)	<u>(2,406,513)</u>	<u>(648,876)</u>
<b>Nonoperating Revenue</b>		
Earnings on investments	20,574	844
Miscellaneous income	<u>55,387</u>	<u>5,360</u>
Total nonoperating revenues	<u>75,961</u>	<u>6,204</u>
Income (loss) before capital contributions	<u>(2,330,552)</u>	<u>(642,672)</u>
Capital contributions from participants	<u>1,770,732</u>	<u>9,765,862</u>
Change in net position	(559,820)	9,123,190
<b>Net Position, Beginning</b>	<u>64,508,420</u>	<u>55,385,230</u>
<b>Net Position, Ending</b>	<u>\$ 63,948,600</u>	<u>\$ 64,508,420</u>

See notes to financial statements

## Soldier Canyon Water Treatment Authority

### Statements of Cash Flows

Years ended December 31, 2022 and 2021

	<u>2022</u>	<u>2021</u>
<b>Cash Flows From Operating Activities</b>		
Cash received from customers	\$ 5,591,270	\$ 5,675,552
Cash paid to employees	(2,245,460)	(2,486,759)
Cash paid to suppliers	(2,701,732)	(2,239,406)
	<u>644,078</u>	<u>949,387</u>
Net cash flows from operating activities	644,078	949,387
<b>Cash Flows From Investing Activities</b>		
Earnings on investments	20,574	844
Other income	55,387	5,360
	<u>75,961</u>	<u>6,204</u>
Net cash flows from investing activities	75,961	6,204
<b>Cash Flows From Capital and Related Financing Activities</b>		
Acquisition and construction of capital assets	(2,919,524)	(11,434,745)
Contribution received for construction	1,770,732	9,765,862
	<u>(1,148,792)</u>	<u>(1,168,883)</u>
Net cash flows from capital and related financing activities	(1,148,792)	(1,168,883)
Net change in cash and cash equivalents	(428,753)	(713,292)
<b>Cash and Cash Equivalents, Beginning</b>	<u>2,762,245</u>	<u>3,475,537</u>
<b>Cash and Cash Equivalents, Ending</b>	<u>\$ 2,333,492</u>	<u>\$ 2,762,245</u>
<b>Noncash Investing, Capital and Financing Activities</b>		
<b>Reconciliation of Operating Income to Net Cash Provided by Operating Activities</b>		
Operating income	\$ (2,406,513)	\$ (648,876)
Noncash items included in operating income:		
Depreciation	3,037,842	890,327
Changes in assets, deferred outflows, liabilities and deferred inflows:		
Customer accounts receivable	989,116	1,113,859
Prepayments	(190,062)	77,477
Materials and supplies	(62,124)	(58,392)
Accounts payable	(25,581)	(261,856)
Other current liabilities	740	17,577
Accrued compensated absences	27,523	(7,042)
Pension liability (asset) and related items	(708,152)	(155,479)
OPEB liability and related items	(18,711)	(18,208)
	<u>\$ 644,078</u>	<u>\$ 949,387</u>
Net cash provided by operating activities	644,078	949,387
<b>Supplemental Noncash Flow Information</b>		
Capital assets acquired through accounts payable	<u>\$ (22,966)</u>	<u>\$ (1,507,649)</u>

See notes to financial statements



# Soldier Canyon Water Treatment Authority

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Notes to Financial Statements  
December 31, 2022 and 2021

## 1. Summary of Significant Accounting Policies

### Nature of Activities

The Soldier Canyon Water Treatment Authority (the Authority) was formed on February 1, 2017 as a result of the transfer of all assets, deferred outflows of resources, liabilities and deferred inflows of resources of the Soldier Canyon Filter Plant (the Plant). In connection with the formation of the Authority, the North Weld County Water District (NWCWD), Fort Collins and Loveland Water District (FCLWD) and East Larimer County Water District (ELCO), (collectively the Districts), contributed their ownership in the Soldier Canyon Filter Plant (previously accounted for as a joint venture), along with the related capital assets, to the Authority in exchange for specified water treatment capacity. The purpose of the Authority is to provide treated water to the Districts that have acquired water treatment capacity (the right to purchase water) from the Authority. In conformity with accounting principles generally accepted in the United States (GAAP) issued by the Governmental Accounting Standards Board (GASB), the Authority is the reporting entity for financial reporting purposes. The Authority is the lowest level of government having financial accountability and control to provide water filtration service within the political subdivision identified as the Soldier Canyon Water Treatment Authority. The accounts of the Authority are organized on the basis of a proprietary fund. The operations of the Authority are accounted for with a set of self-balancing accounts that comprise its assets, deferred outflows of resources, liabilities, deferred inflows of resources, net position, revenues and expenses.

### Financial Reporting Entity

As defined by GAAP established by the GASB, the financial reporting entity consists of the primary government, as well as component units, which are legally separate organizations for which elected officials of the primary government are financially accountable. Financial accountability is defined as:

- 1) Appointment of a voting majority of the component unit's board, and either, a) the ability to impose its will by the primary government, or b) the possibility that the component unit will provide a financial benefit to or impose a financial burden on the primary government; or
- 2) Fiscal dependency on the primary government

Based on the above criteria, there are no other organizations that would be considered component units of the Authority.

### Basic Financial Statements

The Authority is a special – purpose government engaged only in business – type activities. As such, enterprise fund financial statements are presented.

### Basis of Accounting

Proprietary funds are accounted for on a flow of economic resources measurement focus. With this measurement focus, all assets, deferred outflows of resources, liabilities and deferred inflows of resources associated with operations are included on the statement of net position. Revenues are recorded in the accounting period in which they are earned and become measurable; expenses are recorded in the period in which they are incurred and become measurable. Net position is segregated into net investment in capital assets, restricted and unrestricted net position. Proprietary fund-type operating statements present increases (e.g., revenues) and decreases (e.g., expenses) in total net position. Proprietary funds are used to account for activities similar to those found in the private sector, where the determination of net income is necessary or useful to sound financial administration.

# Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
December 31, 2022 and 2021

## Budgets and Budgetary Accounting

An annual budget and appropriation resolution is adopted by the Board of Directors in accordance with Colorado state statutes. The budget is prepared on a basis consistent with GAAP, except that capital asset additions and principal payments are budgeted as expenditures and debt proceeds are budgeted as revenues.

- On or about October 15, the Authority staff submits to the Board of Directors a proposed operating budget for the fiscal year commencing the following January 1. The operating budget includes proposed expenditures and the means of financing them.
- Public hearings are conducted at regular meetings of the Board of Directors to obtain taxpayer comments.
- Prior to December 15, the budget is legally adopted by the Board of Directors.
- Unused appropriations lapse at the end of each year.
- Budgeted amounts reported in the accompanying financial statements are as originally adopted and as amended by the Board of Directors throughout the year.

The following is a summary of the original budget, total revisions and revised budget for total expenditures for fiscal year 2022:

	<u>Original Budget</u>	<u>Total Revision</u>	<u>Revised Budget</u>
Enterprise Fund	\$ 10,338,286	\$ -	\$ 9,417,593

## Cash and Cash Equivalents

The Authority considers all highly liquid investments purchased with an original maturity of three months or less and amounts held in local government investment pools to be cash equivalents.

## Local Government Investment Pool

At December 31, 2022 and 2021, the Authority had invested \$1,174,201 and \$1,753,627, respectively, in the Colorado Local Government Liquid Asset Trust (the Trust), an investment vehicle established for local government entities in Colorado to pool surplus funds. The State Securities Commission administers and enforces all State statutes governing the Trust. The Trust operates similarly to a money market fund and each share is equal in value to \$1.

The Trust offers shares in two portfolios, COLOTRUST PRIME and COLOTRUST PLUS+. COLOTRUST PRIME invests only in U.S. Treasury and government agencies. COLOTRUST PLUS+ can invest in U.S. Treasury, government agencies and in the highest-rate commercial paper. A designated custodial bank serves as custodian for the Trust's portfolios pursuant to a custodian agreement. The custodian acts as a safekeeping agent for the Trust's investment portfolios and provides services as the depository in connection with direct investments and withdrawals. The custodian's internal records segregate investments owned by the Trust. The Trust is rated AAAM by Standard and Poor's and is measured at net asset value. There are no unfunded commitments, the redemption frequency is daily and there is no redemption notice period.

# Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
December 31, 2022 and 2021

## Prepaid Expenses

Certain payments to vendors reflect costs applicable to future accounting periods and are recorded as prepaid expenses in the financial statements. Accounts Receivable – Members.

## Inventory

Inventories, primarily consisting of chemicals, are shown in the financial statements at cost, using the first-in first-out method of accounting.

## Capital Assets

Capital assets purchased or contributed with an original cost or fair value of \$5,000 or more are capitalized using historical cost or fair value. Expenditures for maintenance and repairs are charged to operations as incurred. Property replacements and improvements, which extend the lives of assets, are capitalized and subsequently depreciated.

The provision for depreciation is computed using the straight-line method over the estimated useful lives of the assets. The lives used for individual components classified as equipment are as follows:

	<u>Years</u>
Filter plant	50 years
Equipment	5-10 years

## Deferred Outflows/Inflows of Resources

In addition to assets, the statement of net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element represents a consumption of net position that applies to a future period(s) and will not be recognized as an outflow of resources (expense/expenditure) until then.

In addition to liabilities, the statement of net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element represents an acquisition of net position that applies to a future period(s) and will not be recognized as an inflow of resources (revenue) until that time. The Authority's deferred outflows and inflows of resources primarily relate to pensions and other post-employment benefits (OPEB) more fully described in notes 4 and 5.

## Compensated Absences

Obligations associated with the Authority's vacation policy are recorded as a liability and expensed when earned to the extent that such benefits vest to the employee. The amount of the accrued and unpaid balance due under this policy is considered a long-term liability. The Authority's liability for accrued compensated absences was \$134,716 and \$106,966 at December 31, 2022 and 2021, respectively, shown as accrued compensated absences on the Statements of Net Position.

# Soldier Canyon Water Treatment Authority

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Notes to Financial Statements  
December 31, 2022 and 2021

## Pensions

The Authority participates in the Local Government Division Trust Fund (LGDTF), a cost-sharing multiple-employer defined benefit pension plan administered by the Public Employees' Retirement Association of Colorado (PERA). The net pension liability (asset), deferred outflows of resources and deferred inflows of resources related to pensions, pension expense, information about the fiduciary net position (FNP) and additions to/deductions from the FNP of the LGDTF have been determined using the economic resources measurement focus and the accrual basis of accounting. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

The Colorado General Assembly passed significant pension reform through Senate Bill (SB) 18-200: Concerning Modifications To the Public Employees' Retirement Association Hybrid Defined Benefit Plan Necessary to Eliminate with a High Probability the Unfunded Liability of the Plan Within the Next Thirty Years. The bill was signed into law by Governor Hickenlooper on June 4, 2018. SB 18-200 made changes to certain benefit provisions. Most of these changes were in effect as of December 31, 2021.

## Other Post-Employment Benefits (OPEB)

The Authority participates in the Health Care Trust Fund (HCTF), a cost-sharing multiple-employer defined benefit OPEB fund administered by PERA. The net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, OPEB expense, information about the fiduciary net position (FNP) and additions to/deductions from the FNP of the HCTF have been determined using the economic resources measurement focus and the accrual basis of accounting. For this purpose, benefits paid on behalf of health care participants are recognized when due and/or payable in accordance with the benefit terms. Investments are reported at fair value.

## Net Position

Net position is classified in the following categories:

- **Net Investment in Capital Assets** - This category groups all capital assets into one component of net position reduced by any outstanding borrowings attributed to the related assets. Accumulated depreciation of these assets reduces this category.
- **Restricted Net Position** - This category presents external restrictions imposed by creditors, grantors, contributors or laws or regulations of other governments and restriction imposed by law through constitutional provisions or enabling legislation.
- **Unrestricted Net Position** - This category represents the net position of the Authority which is not restricted for any project or other purpose. A deficit will require future funding.

When both restricted and unrestricted resources are available for use, it is the Authority's policy to use restricted resources first, then unrestricted resources as they are needed.

## Revenue Recognition

Revenues are recognized when earned. Amounts are billed on a monthly basis.

# Soldier Canyon Water Treatment Authority

Notes to Financial Statements

December 31, 2022 and 2021

## Use of Estimates

The preparation of the financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, deferred outflows of resources, liabilities and deferred inflows of resources and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant accounting estimates include those for the net pension and net OPEB liabilities.

## 2. Liquidity and Availability

### Deposits

Colorado state statutes govern the entity's deposits of cash. For deposits in excess of federally insured limits, Colorado Revised Statutes (CRS) require the depository institution to maintain collateral on deposit with an official custodian (as authorized by the State Banking Board). The Colorado Public Deposit Protection Act (PDPA) requires state regulators to certify eligible depositories for public deposit. PDPA requires the eligible depositories with public deposits in excess of the federal insurance levels to create a single institutional collateral pool of obligations of the State of Colorado or local Colorado governments and obligations secured by first lien mortgages on real property located in the State. The pool is to be maintained by another institution or held in trust for all uninsured public deposits as a group. The market value of the assets in the pool must be at least 102% of the uninsured deposits. At December 31, 2022 and 2021, the Authority had deposits with a financial institution with a carrying amount of \$1,159,041 and \$1,008,368, respectively. The bank balances with the financial institution were \$1,173,137 and \$1,624,237, respectively. Of these amounts, \$250,000 was covered by federal depository insurance. The remaining balances of \$923,137 and \$1,374,237 at December 31, 2022 and 2021, respectively, was collateralized with securities held by the financial institutions' agents but not in the Authority's name.

Cash and cash equivalents held by the Authority were as follows:

	<u>2022</u>	<u>2021</u>
Financial assets at year-end:		
Cash on hand	\$ 250	\$ 250
Bank deposits	1,159,041	1,008,368
Local government investment pool	<u>1,174,201</u>	<u>1,753,627</u>
Total	<u>\$ 2,333,492</u>	<u>\$ 2,762,245</u>

### Investments

Colorado state statutes specify investment instruments meeting defined rating and risk criteria in which local governments may invest which include:

- Certificates of deposit with an original maturity in excess of three months
- Obligations of the United States and U.S. Government agency securities
- Certain international agency securities
- General obligation and revenue bonds of U.S. local government entities
- Banker's acceptance of certain banks
- Commercial paper
- Written repurchase agreements collateralized by certain authorized securities
- Certain money market funds
- Guaranteed investment contracts
- Local government investment pools

# Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
December 31, 2022 and 2021

The Authority's policy is to hold investments until maturity.

## Interest Rate Risk

The Authority does not have a formal written investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates; however the Authority adheres to state statutes. Colorado Revised Statutes limit investment maturities to five years or less from the date of purchase.

## Custodial Credit Risk

Custodial credit risk is the risk that in the event of a bank failure, the Authority's deposits may not be returned to it. The Authority does not have a deposit policy for custodial credit risk. Deposits exposed to credit risk are collateralized with securities held by the pledging financial instruction through the PDPA. As of December 31, 2022 and 2021, none of the Authority's bank balances were exposed to custodial credit risk.

## 3. Capital Assets

The following is a summary of capital asset activity for the year ended December 31, 2022:

	<u>Beginning Balance</u>	<u>Additions</u>	<u>Deletions/ Reclassifications</u>	<u>Ending Balance</u>
Capital assets, not being depreciated:				
Land	\$ 83,869	\$ -	\$ -	\$ 83,869
Construction in progress	520,533	150,712	(520,533)	150,712
Total capital assets, not being depreciated	<u>604,402</u>	<u>150,712</u>	<u>(520,533)</u>	<u>234,581</u>
Capital assets being depreciated:				
Filter plant	64,257,474	1,218,754	485,331	65,961,559
Equipment	2,961,983	65,376	35,202	3,062,561
Total capital assets being depreciated	<u>67,219,457</u>	<u>1,284,130</u>	<u>520,533</u>	<u>69,024,120</u>
Less accumulated depreciation for:				
Filter plant	(2,228,781)	(2,759,934)	(646,500)	(5,635,215)
Equipment	(1,556,568)	(277,908)	646,500	(1,187,976)
Total accumulated depreciation	<u>(3,785,349)</u>	<u>(3,037,842)</u>	<u>-</u>	<u>(6,823,191)</u>
Net capital assets being depreciated	<u>63,434,108</u>	<u>(1,753,712)</u>	<u>520,533</u>	<u>62,200,929</u>
Net capital assets	<u>\$ 64,038,510</u>	<u>\$ (1,603,000)</u>	<u>\$ -</u>	<u>\$ 62,435,510</u>

## Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
December 31, 2022 and 2021

The following is a summary of capital assets activity for the year ended December 31, 2021:

	<u>Beginning Balance</u>	<u>Additions</u>	<u>Deletions/ Reclassifications</u>	<u>Ending Balance</u>
Capital assets, not being depreciated:				
Land	\$ 83,869	\$ -	\$ -	\$ 83,869
Construction in progress	31,024,555	9,749,271	(40,253,293)	520,533
Total capital assets, not being depreciated	<u>31,108,424</u>	<u>9,749,271</u>	<u>(40,253,293)</u>	<u>604,402</u>
Capital assets being depreciated:				
Filter plant	22,956,531	177,825	41,123,118	64,257,474
Equipment	3,831,808	-	(869,825)	2,961,983
Total capital assets being depreciated	<u>26,788,339</u>	<u>177,825</u>	<u>40,253,293</u>	<u>67,219,457</u>
Less accumulated depreciation for:				
Filter plant	(1,775,471)	(453,310)	-	(2,228,781)
Equipment	(1,119,551)	(437,017)	-	(1,556,568)
Total accumulated depreciation	<u>(2,895,022)</u>	<u>(890,327)</u>	<u>-</u>	<u>(3,785,349)</u>
Net capital assets being depreciated	<u>23,893,317</u>	<u>(712,502)</u>	<u>40,253,293</u>	<u>63,434,108</u>
Net capital assets	<u>\$ 55,001,741</u>	<u>\$ 9,036,769</u>	<u>\$ -</u>	<u>\$ 64,038,510</u>

#### 4. Public Employees' Retirement Association of Colorado Pension Plan

The Authority participates in the Local Government Division Trust Fund (LGDTF), a cost-sharing multiple-employer defined benefit pension plan administered by the Public Employees' Retirement Association of Colorado (PERA). The net pension liability (asset), deferred outflows of resources and deferred inflows of resources related to pensions, pension expense, information about the fiduciary net position (FNP) and additions to/deductions from the FNP of the LGDTF have been determined using the economic resources measurement focus and the accrual basis of accounting. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

The Colorado General Assembly passed significant pension reform through Senate Bill (SB) 18-200: *Concerning Modifications to the Public Employees' Retirement Association Hybrid Defined Benefit Plan Necessary to Eliminate with a High Probability the Unfunded Liability of the Plan Within the Next Thirty Years*. The bill was signed into law by Governor Hickenlooper on June 4, 2018. SB 18-200 made changes to certain benefit provisions. Most of these changes were in effect as of December 31, 2022.



# Soldier Canyon Water Treatment Authority

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Notes to Financial Statements  
December 31, 2022 and 2021

## Plan Description

Eligible employees of the Authority are provided with pensions through the LGDTF a cost-sharing multiple-employer defined benefit pension plan administered by PERA. Plan benefits are specified in Title 24, Article 51 of the Colorado Revised Statutes (C.R.S.), administrative rules set forth at 8 C.C.R. 1502-1, and applicable provisions of the federal Internal Revenue Code. Colorado State law provisions may be amended from time to time by the Colorado General Assembly. PERA issues a publicly available comprehensive annual financial report (Annual Report) that can be obtained at: [www.copera.org/investments/pera-financial-reports](http://www.copera.org/investments/pera-financial-reports).

## Benefits Provided as of December 31, 2021

PERA provides retirement, disability and survivor benefits. Retirement benefits are determined by the amount of service credit earned and/or purchased, highest average salary, the benefit structure(s) under which the member retires, the benefit option selected at retirement and age at retirement. Retirement eligibility is specified in tables set forth at C.R.S. § 24-51-602, 604, 1713 and 1714.

The lifetime retirement benefit for all eligible retiring employees under the PERA benefit structure is the greater of the:

- Highest average salary multiplied by 2.5% and then multiplied by years of service credit.
- The value of the retiring employee's member contribution account plus a 100% match on eligible amounts as of the retirement date. This amount is then annuitized into a monthly benefit based on life expectancy and other actuarial factors.

The lifetime retirement benefit for all eligible retiring employees under the Denver Public Schools (DPS) benefit structure is the greater of the:

- Highest average salary multiplied by 2.5% and then multiplied by years of service credit.
- \$15 times the first 10 years of service credit plus \$20 times service credit over 10 years plus a monthly amount equal to the annuitized member contribution account balance based on life expectancy and other actuarial factors.

In all cases the service retirement benefit is limited to 100% of highest average salary and also cannot exceed the maximum benefit allowed by federal Internal Revenue Code.

Members may elect to withdraw their member contribution accounts upon termination of employment with all PERA employers; waiving rights to any lifetime retirement benefits earned. If eligible, the member may receive a match of either 50% or 100% on eligible amounts depending on when contributions were remitted to PERA, the date employment was terminated, whether 5 years of service credit has been obtained and the benefit structure under which contributions were made.

# Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
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As of December 31, 2020, benefit recipients who elect to receive a lifetime retirement benefit are generally eligible to receive post-retirement cost-of-living adjustments, referred to as annual increases in the C.R.S., once certain criteria are met. Pursuant to SB 18-200, eligible benefit recipients under the PERA benefit structure who began membership before January 1, 2007, and all eligible benefit recipients of the DPS benefit structure will receive an annual increase of 1.25% unless adjusted by the automatic adjustment provision (AAP) pursuant to C.R.S. § 24-51-413. Eligible benefit recipients under the PERA benefit structure who began membership on or after January 1, 2007 will receive the lesser of an annual increase of 1.25% or the average of the Consumer Price Index for Urban Wage Earners and Clerical Workers for the prior calendar year, not to exceed 10% of PERA's Annual Increase Reserve (AIR) for the LGDTF. The AAP may raise or lower the aforementioned annual increase by up to 0.25% based on the parameters specified in C.R.S. § 24-51-413.

Disability benefits are available for eligible employees once they reach five years of earned service credit and are determined to meet the definition of disability. The disability benefit amount is based on the lifetime retirement benefit formula(s) shown above considering a minimum 20 years of service credit, if deemed disabled.

Survivor benefits are determined by several factors, which include the amount of earned service credit, highest average salary of the deceased, the benefit structure(s) under which service credit was obtained, and the qualified survivor(s) who will receive the benefits.

## Contributions Provisions as of December 31, 2022

Eligible employees and the Authority are required to contribute to the LGDTF at a rate set by Colorado statute. The contribution requirements are established under C.R.S. § 24-51-401, et seq. and § 24-51-413. Employee contribution rates for the period of January 1, 2020 through December 31, 2021 are summarized in the table below:

	<b>January 1, 2021 Through June 30, 2021</b>	<b>July 1, 2021 Through December 31, 2021</b>	<b>January 1, 2022 Through June 30, 2022</b>	<b>July 1, 2022 Through December 31, 2022</b>
Employer contribution	8.50 %	8.50 %	8.50 %	8.50 %

\*\*Contribution rates for the LGDTF are expressed as a percentage of salary as defined in C.R.S. § 24-51-101(42).

## Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
December 31, 2022 and 2021

The employer contribution requirements are summarized in the table below:

	January 1, 2021 Through June 30, 2021	July 1, 2021 Through December 31, 2021	January 1, 2022 Through June 30, 2022	July 1, 2022 Through December 31, 2022
Employer contribution rate	10.5 %	10.5 %	10.5 %	11.00 %
Amount of employer contribution apportioned to the Health Care Trust Fund as specified in C.R.S. § 24-51-208(1)(f)	(1.02) %	(1.02) %	(1.02) %	(1.02) %
Amount apportioned to the LGDTF	9.48 %	9.48 %	9.48 %	9.48 %
Amortization Equalization Disbursement (AED) as specified in C.R.S. § 24-51-411	2.20 %	2.20 %	2.20 %	2.20 %
Supplemental Amortization Equalization Disbursement (SAED) as specified in C.R.S. § 24-51-411	1.50 %	1.50 %	1.50 %	1.50 %
Defined Contribution Supplement as specified in C.R.S. § 24-51-415	.02 %	.02 %	.02 %	.02 %
Total employer contribution rate to the LGDTF	<u>13.20 %</u>	<u>13.20 %</u>	<u>13.20 %</u>	<u>13.20 %</u>

\*\*Contribution Rates for the LGDTF are expressed as a percentage of salary as defined in C.R.S. § 24-51-101(42).

Employer contributions are recognized by the LGDTF in the period in which the compensation becomes payable to the member and the Authority is statutorily committed to pay the contributions to the LGDTF. Employer contributions recognized by the LGDTF from the Authority were \$260,906 and \$255,620 for the years ended December 31, 2022 and 2021, respectively.

### Pension Liabilities (Assets), Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

At December 31, 2022 and 2021, the Authority reported a liability (asset) of (\$211,454) and \$1,194,209, respectively for its proportionate share of the net pension liability (asset). The net pension liability (asset) for the LGDTF was measured as of December 31, 2021 and 2020, and the total pension liability (asset) used to calculate the net pension liability was determined by an actuarial valuation as of December 31, 2020 and 2019. Standard update procedures were used to roll-forward the total pension liability (asset) to December 31, 2021 and 2020. The Authority's proportion of the net pension liability (asset) was based on the Authority's contributions to the LGDTF for the calendar year 2021 and 2020 relative to the total contributions of participating employers to the LGDTF.

At December 31, 2021, the Authority's proportion was 0.25829%, which was an increase of 0.02913% from its proportion measured as of December 31, 2020.

For the years ended December 31, 2022 and 2021, the Authority recognized pension expense of (\$708,152) and \$100,141 respectively.

## Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
December 31, 2022 and 2021

At December 31, 2022 the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between expected and actual experience	\$ 10,823	\$ 3,699
Changes of assumptions or other inputs	75,068	-
Net difference between projected and actual earnings on pension plan investments	-	1,915,620
Changes in proportion and differences between contributions recognized and proportionate share of contributions	156,616	-
Authority contributions subsequent to the measurement date	260,906	-
<b>Total</b>	<b>\$ 503,413</b>	<b>\$ 1,919,319</b>

The \$260,906 reported as deferred outflows of resources related to pensions, resulting from contributions subsequent to the measurement date, will be recognized as a reduction of the net pension liability (asset) in the year ending December 31, 2022. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

	<b>Amortization</b>
Years ending December 31,	
2022	\$ (285,162)
2023	(696,998)
2024	(462,197)
2025	(232,455)
Thereafter	-
	<b>\$ (1,676,812)</b>

At December 31, 2021 the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between expected and actual experience	\$ 57,739	\$ -
Changes of assumptions or other inputs	288,594	-
Net difference between projected and actual earnings on pension plan investments	-	1,291,471
Changes in proportion and differences between contributions recognized and proportionate share of contributions	-	18,877
Authority contributions subsequent to the measurement date	255,620	-
<b>Total</b>	<b>\$ 601,953</b>	<b>\$ 1,310,348</b>

# Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
December 31, 2022 and 2021

## Actuarial Assumptions

The total pension liability (asset) in the December 31, 2021 actuarial valuation was determined using the following actuarial cost method, actuarial assumptions and other inputs:

Actuarial Cost Method	Entry Age
Price inflation	2.30%
Real wage growth	0.70%
Wage inflation	3.00%
Salary increases, including wage inflation	3.20 – 11.30%
Long-term investment rate of return, net of pension plan investment expenses, including price inflation	7.25%
Discount rate	7.25%
Post-retirement benefit increases:	1.00% compounded annually
PERA benefit structure hired prior to 1/1/07; and	
DPS benefit structure (automatic)	
PERA benefit structure hired after 12/31/06	Financed by the Annual Increase Reserve (AIR)

The mortality tables described below are generational mortality tables developed on a benefit-weighted basis.

Pre-retirement mortality assumptions for members were based upon the PubG-2010 Employee Table with generational projection using scale MP-2019.

Post-retirement non-disabled retiree mortality rates are based upon the PubG-2010 Healthy Retiree table with adjustments for credibility and gender, adjusted as follows:

- Males: 94% of the rates prior to age 80 and 90% of the rates for ages 80 and older, projected generationally using the MP-2019 projection scale.
- Females: 87% of the rates prior to age 80 and 107% of the rates for ages 80 and older, with generational projection using scale MP-2019.

The mortality assumption for disabled retirees was based on 99% of the MP-2019 Disabled Retiree Mortality Table.

The actuarial assumptions used in the December 31, 2020, valuation were based on the results of the 2020 experience analysis for the period January 1, 2016, through December 31, 2019. Revised economic and demographic assumptions were adopted by PERA's Board on November 20, 2020.

# Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
December 31, 2022 and 2021

Based on the 2020 experience analysis, dated October 28, 2020, for the period January 1, 2016, through December 31, 2019, revised economic and demographic assumptions were adopted by PERA's Board on November 20, 2020, and were effective as of December 31, 2020. The assumptions shown below were reflected in the roll forward calculation of the total pension liability (asset) from December 31, 2019, to December 31, 2020.

Actuarial Cost Method	Entry Age
Price inflation	2.30%
Real wage growth	0.70%
Wage inflation	3.00%
Salary increases, including wage inflation	
Member other than State Troopers	3.20 – 11.30%
State Troopers <sup>1</sup>	3.20 – 12.40%
Long-term investment rate of return, net of pension plan investment expenses, including price inflation	7.25%
Discount rate	7.25%
Post-retirement benefit increases:	1.25
PERA benefit structure hired prior to 1/1/07; and DPS benefit structure (automatic)	
PERA benefit structure hired after 12/31/06 <sup>1</sup>	Financed by the AIR

<sup>1</sup>C.R.S. § 24-51-101 (46), as amended, expanded the definition of "State Troopers" to include certain employees within the LGDTF, effective January 1, 2020. See Note 4 of the Notes to the Financial Statements in PERA's 2020 Annual Report for more information.

<sup>2</sup> Post-retirement benefit increases are provided by the AIR, accounted separately within each Division Trust Fund, and subject to moneys being available; therefore, liabilities related to increases for members of these benefit tiers can never exceed available assets.

Salary scale assumptions were revised to align with revised economic assumptions and to more closely reflect actual experience.

Rates of termination/withdrawal, retirement and disability were revised to more closely reflect actual experience.

Pre-retirement mortality assumptions were based upon the PubG-2010 Employee Table with generational projection using scale MP-2019.

## Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
December 31, 2022 and 2021

Post-retirement non-disabled mortality assumptions for Members were based upon the PubG-2010 Healthy Retiree Table, adjusted as follows:

- Males: 94% of the rates prior to age 80 and 90% of the rates for ages 80 and older, with generational projection using scale MP-2019.
- Females: 87% of the rates prior to age 80 and 107% of the rates for ages 80 and older, with generational projection using scale MP-2019.

Post-retirement non-disabled beneficiary mortality assumptions were based upon the Pub-2010 Contingent Survivor Table, adjusted as follows:

- Males: 97% of the rates for all ages, with generational projection using scale MP-2019.
- Females: 105% of the rates for all ages, with generational projection using scale MP-2019.

Disabled mortality assumptions were based upon the PubNS-2010 Disabled Retiree Table using 99% of the rates for all ages with generational projection using scale MP-2019.

The mortality tables described above are generational mortality tables on a benefit-weighted basis.

The long-term expected return on plan assets is reviewed as part of regular experience studies prepared every four to five years for PERA. Recently this assumption has been reviewed more frequently. The most recent analyses were outlined in the Experience Study report dated October 28, 2021.

Several factors are considered in evaluating the long-term rate of return assumption, including long-term historical data, estimates inherent in current market data and a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected return, net of investment expense and inflation) were developed for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentages and then adding expected inflation.

PERA's Board first adopted the 7.25% long-term expected rate of return as of November 18, 2016. Following an asset/liability study, PERA's Board reaffirmed the assumed rate of return at the PERA Board's November 15, 2019, meeting, to be effective January 1, 2020. As of the most recent reaffirmation of the long-term rate of return, the target asset allocation and best estimates of geometric real rates of return for each major asset class are summarized in the table as follows:

<b>Asset Class</b>	<b>Target Allocation</b>	<b>30 Year Expected Geometric Real Rate of Return</b>
Global Equity	54.00%	5.60%
Fixed Income	23.00	1.30
Private Equity	8.50	7.10
Real Estate	8.50	4.40
Alternatives	6.00	4.70
Total	100.00	

In setting the long-term expected rate of return, projections employed to model future returns provide a range of expected long-term returns that, including expected inflation, ultimately support a long-term expected nominal rate of return assumption of 7.25%.



# Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
December 31, 2022 and 2021

## Discount Rate

The discount rate used to measure the total pension liability (asset) was 7.25%. The projection of cash flows used to determine the discount rate applied the actuarial cost method and assumptions shown above. In addition, the following methods and assumptions were used in the projection of cash flows:

- Total covered payroll for the initial projection year consists of the covered payroll of the active membership present on the valuation date and the covered payroll of future plan members assumed to be hired during the year. In subsequent projection years, total covered payroll was assumed to increase annually at a rate of 3.00%.
- Employee contributions were assumed to be made at the member contribution rates in effect for each year, including the required adjustment resulting from the 2018 automatic adjustment provision assessment, and the additional 0.50%, resulting from the 2020 automatic adjustment provision assessment, statutorily recognized July 1, 2021, and effective July 1, 2022. Employee contributions for future plan members were used to reduce the estimated amount of total service cost for future plan members.
- Employer contributions were assumed to be made at rates equal to the fixed statutory rates specified in law for each year, including the required adjustments resulting from the 2018 automatic adjustment provision assessment, and additional 0.50%, resulting from 2020 automatic adjustment provision assessment, statutorily recognized July 1, 2021, and effective July 1, 2022. Employer contributions also include current and estimated future amortization equalization disbursement and supplemental amortization equalization disbursement, until the actuarial value funding ratio reaches 103%, at which point the amortization equalization disbursement and supplemental amortization equalization disbursement will each drop 0.50% every year until they are zero. Additionally, estimated employer contributions reflect reductions for the funding of the annual increase reserve and retiree health care benefits. For future plan members, employer contributions were further reduced by the estimated amount of total service costs for future plan members not financed by their member contributions.
- Employer contributions and the amount of total service costs for future plan members were based upon a process to estimate future actuarially determined contributions assuming an analogous future plan member growth rate.
- The annual increase reserve balance was excluded from the initial fiduciary net position (FNP), as, per statute, annual increase reserve amounts cannot be used to pay benefits until transferred to either the retirement benefits reserve or the survivor benefits reserve, as appropriate. Annual increase reserve transfers to the FNP and the subsequent annual increase reserve benefit payments were estimated and included in the projections.
- The projected benefit payments reflect the lower annual increase cap, from 1.25 to 1.00% resulting from 2020 AAP assessment, statutorily recognized July 1, 2021, and effective July 1, 2022.
- Benefit payments and contributions were assumed to be made at the middle of the year.

Based on the above assumptions and methods, LGDTF's FNP was projected to be available to make all projected future benefit payments of current members. Therefore, the long-term expected rate of return of 7.25% on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability (asset). The discount rate determination does not use the municipal bond index rate, and therefore, the discount rate is 7.25%. There was no change in the discount rate from the prior measurement date.

## Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
December 31, 2022 and 2021

### Sensitivity of the Authority's Proportionate Share of the Net Pension Liability (Asset) to Changes in the Discount Rate

The following table presents the proportionate share of the net pension liability (asset) calculated using the discount rate of 7.25%, as well as what the proportionate share of the net pension liability (asset) would be if it were calculated using a discount rate that is 1-percentage-point lower (6.25%) or 1-percentage-point higher (8.25%) than the current rate:

	2022		
	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
Authority's proportionate share of the net pension liability (asset)	\$ 1,518,418	\$ (221,454)	\$ (1,676,780)

	2021		
	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
Authority's proportionate share of the net pension liability (asset)	\$ 2,750,981	\$ 1,194,209	\$ (105,493)

### Pension Plan Fiduciary Net Position

Detailed information about the LGDTF's fiduciary net position is available in PERA's annual comprehensive financial report which can be obtained at [www.copera.org/investments/pera-financial-reports](http://www.copera.org/investments/pera-financial-reports).

## 5. Other Post-Employment Benefits

### Plan Description

Eligible employees of the Authority are provided with OPEB through the Health Care Trust Fund (HCTF) - a cost-sharing multiple-employer defined benefit OPEB plan administered by PERA. The HCTF is established under Title 24, Article 51, Part 12 of the Colorado Revised Statutes, as amended. Colorado State law provisions may be amended from time to time by the Colorado General Assembly. Title 24, Article 51, Part 12 of the C.R.S., as amended, sets forth a framework that grants authority to the PERA Board to contract, self-insure, and authorize disbursements necessary in order to carry out the purposes of the PERA Care program, including the administration of the premium subsidies. Colorado State law provisions may be amended from time to time by the Colorado General Assembly. PERA issues a publicly available comprehensive annual financial report that can be obtained at: [www.copera.org/investments/pera-financial-reports](http://www.copera.org/investments/pera-financial-reports).

### Benefits Provided

The HCTF provides a health care premium subsidy to eligible participating PERA benefit recipients and retirees who choose to enroll in one of the PERA health care plans, however, the subsidy is not available if only enrolled in the dental and/or vision plan(s). The health care premium subsidy is based upon the benefit structure under which the member retires and the member's years of service credit. For members who retire having service credit with employers in the Denver Public Schools Division and one or more of the other four Divisions (State, School, Local Government and Judicial), the premium subsidy is allocated between the HCTF and the Denver Public Schools Health Care Trust Fund (DPS HCTF). The basis for the amount of the premium subsidy funded by each trust fund is the percentage of the member contribution account balance from each division as it relates to the total member contribution account balance from which the retirement benefit is paid.

# Soldier Canyon Water Treatment Authority

Notes to Financial Statements

December 31, 2022 and 2021

C.R.S. § 24-51-1202 et seq. specifies the eligibility for enrollment in the health care plans offered by PERA and the amount of the premium subsidy. The law governing a benefit recipient's eligibility for the subsidy and the amount of the subsidy differs slightly depending under which benefit structure the benefits are calculated. All benefit recipients under the PERA benefit structure and all retirees under the DPS benefit structure are eligible for a premium subsidy, if enrolled in a health care plan under PERACare. Upon the death of a DPS benefit structure retiree, no further subsidy is paid.

Enrollment in the PERACare is voluntary and is available to benefit recipients and their eligible dependents, certain surviving spouses and divorced spouses and guardians, among others. Eligible benefit recipients may enroll into the program upon retirement, upon the occurrence of certain life events, or on an annual basis during an open enrollment period.

## **PERA Benefit Structure**

The maximum service-based premium subsidy is \$230 per month for benefit recipients who are under 65 years of age and who are not entitled to Medicare; the maximum service-based subsidy is \$115 per month for benefit recipients who are 65 years of age or older or who are under 65 years of age and entitled to Medicare. The basis for the maximum service-based subsidy, in each case, is for benefit recipients with retirement benefits based on 20 or more years of service credit. There is a 5% reduction in the subsidy for each year less than 20. The benefit recipient pays the remaining portion of the premium to the extent the subsidy does not cover the entire amount.

For benefit recipients who have not participated in Social Security and who are not otherwise eligible for premium-free Medicare Part A for hospital-related services, C.R.S. § 24-51-1206(4) provides an additional subsidy. According to the statute, PERA cannot charge premiums to benefit recipients without Medicare Part A that are greater than premiums charged to benefit recipients with Part A for the same plan option, coverage level and service credit. Currently, for each individual PERACare enrollee, the total premium for Medicare coverage is determined assuming plan participants have both Medicare Part A and Part B and the difference in premium cost is paid by the HCTF or the DPS HCTF on behalf of benefit recipients not covered by Medicare Part A.

## **Contributions**

Pursuant to Title 24, Article 51, Section 208(1) (f) of the C.R.S., as amended, certain contributions are apportioned to the HCTF. PERA-affiliated employers of the State, School, Local Government and Judicial Divisions are required to contribute at a rate of 1.02% of PERA-includable salary into the HCTF.

Employer contributions are recognized by the HCTF in the period in which the compensation becomes payable to the member and the Authority is statutorily committed to pay the contributions. Employer contributions recognized by the HCTF from the Authority were \$20,365 and \$20,562 for the years ended December 31, 2022 and 2021, respectively.

## **OPEB Liabilities, OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB**

At December 31, 2022 and 2021, the Authority reported a liability of \$172,901 and \$166,146, respectively, for its proportionate share of the net OPEB liability. The net OPEB liability for the HCTF was measured as of December 31, 2021 and 2020, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of December 31, 2020 and 2019. Standard update procedures were used to roll-forward the total OPEB liability to December 31, 2021 and 2020. The Authority's proportion of the net OPEB liability was based on the Authority's contributions to the HCTF for the calendar year 2021 and 2020 relative to the total contributions of participating employers to the HCTF.

At December 31, 2022, the Authority's proportion was 0.020051%, which was an increase of 0.002566 from its proportion measured as of December 31, 2021.

## Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
December 31, 2022 and 2021

For the years ended December 31, 2022 and 2021 the Authority recognized OPEB expense of (\$175) and \$2,354, respectively. At December 31, 2020, the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between expected and actual experience	\$ 263	\$ 40,997
Changes of assumptions or other inputs	3,580	9,379
Net difference between projected and actual earnings on OPEB plan investments	-	10,703
Changes in proportion and differences between contributions recognized and proportionate share of contributions	24,409	-
Authority contributions subsequent to the measurement date	20,365	-
<b>Total</b>	<b>\$ 48,617</b>	<b>\$ 61,079</b>

The \$20,365 reported as deferred outflows of resources related to OPEB, resulting from contributions subsequent to the measurement date, will be recognized as a reduction of the net OPEB liability in the year ending December 31, 2022. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

	<b>Amortization</b>
Years ending December 31,	
2022	\$ (10,911)
2023	(12,334)
2024	(11,695)
2025	(2,247)
2026	3,648
Thereafter	712
	<b>\$ (32,827)</b>

At December 31, 2021, the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between expected and actual experience	\$ 441	\$ 36,527
Changes of assumptions or other inputs	1,241	10,188
Net difference between projected and actual earnings on OPEB plan investments	-	6,789
Changes in proportion and differences between contributions recognized and proportionate share of contributions	-	6,668
Authority contributions subsequent to the measurement date	20,562	-
<b>Total</b>	<b>\$ 22,244</b>	<b>\$ 60,172</b>

# Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
December 31, 2022 and 2021

## Actuarial Assumptions

The total OPEB liability in the December 31, 2021 actuarial valuation was determined using the following actuarial cost method, actuarial assumptions and other inputs:

Actuarial Cost Method	Entry Age
Price inflation	2.30%
Real wage growth	0.70%
Wage inflation	3.00%
Salary increases, including wage inflation	3.20 – 11.30%
Long-term investment rate of return, net of OPEB plan investment expenses, including price inflation	7.25%
Discount rate	7.25%
Health care cost trend rates	
PERA benefit structure:	
Service-based premium subsidy	0.00%
PERACare Medical Plans	4.50% in 2021, 6.00% in 2022, gradually decreasing to 4.50% in 2029
Medicare Part A premiums	3.75% in 2021, gradually increasing to 4.50% in 2029

In determining the additional liability for PERACare enrollees who are age 65 or older and who are not eligible for premium-free Medicare Part A in the following monthly costs/premiums are assumed for 2021 for the PERA Benefit Structure:

Medicare Plan	Initial Costs for Members Without Medicare Part A		
	Monthly Cost	Monthly Premium	Monthly Cost Adjusted to Age 65
Medicare Advantage/Self-Insured RX	\$ 630	\$ 230	\$ 591
Kaiser Permanente Medicare Advantage HMO	596	199	562

The 2021 Medicare Part A premium is \$471 (actual dollars) per month.

All costs are subject to the health care cost trend rates, as discussed below.

Health care cost trend rates reflect the change in per capita health costs over time due to factors such as medical inflation, utilization, plan design and technology improvements. For the PERA benefit structure, health care cost trend rates are needed to project the future costs associated with providing benefits to those PERACare enrollees not eligible for premium-free Medicare Part A.

Health care cost trend rates for the PERA benefit structure are based on published annual health care inflation surveys in conjunction with actual plan experience (if credible), building block models and industry methods developed by health plan actuaries and administrators. In addition, projected trends for the Federal Hospital Insurance Trust Fund (Medicare Part A premiums) provided by the Centers for Medicare & Medicaid Services are referenced in the development of these rates. Effective December 31, 2020, the health care cost trend rates for Medicare Part A premiums were revised to reflect the current expectation of future increases in rates of inflation applicable to Medicare Part A premiums

## Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
December 31, 2022 and 2021

The PERA benefit structure health care cost trend rates used to measure the total OPEB liability are summarized in the table below:

<u>Year</u>	<u>PERACare Medicare Plans</u>	<u>Medicare Part A Premiums</u>
2021	4.50%	3.75%
2022	6.00%	3.75%
2023	5.80%	4.00%
2024	5.60%	4.00%
2025	5.40%	4.00%
2026	5.10%	4.25%
2027	4.90%	4.25%
2028	4.70%	4.25%
2029+	4.50%	4.50%

Mortality assumptions used in the December 31, 2020 valuation for the State, School Division, Local Government Division and Judicial Divisions HCTF as shown below, reflect generational mortality and were applied, as applicable, in the December 31, 2020, valuation for the HCTF, but developed on a headcount-weighted basis. Affiliated employers of these Division Trust Funds participate in the HCTF.

Pre-retirement mortality assumptions for the State and Local Government Divisions were based upon the PubG-2010 Employee Table with generational projection using scale MP-2019.

Post-retirement non-disabled mortality assumptions for the State and Local Government Divisions were based upon the PubG-2010 Healthy Retiree Table, adjusted as follows:

- Males: 94% of the rates prior to age 80 and 90% of the rates for ages 80 and older, with generational projection using scale MP-2019.
- Females: 87% of the rates prior to age 80 and 107% of the rates for ages 80 and older, with generational projection using scale MP-2019.

Post-retirement non-disabled beneficiary mortality assumptions were based upon the Pub-2010 Contingent Survivor Table, adjusted as follows:

- Males: 97% of the rates for all ages, with generational projection using scale MP-2019.
- Females: 105% of the rates for all ages, with generational projection using scale MP-2019.

Disabled mortality assumptions for Members were based upon the PubNS-2010 Disabled Retiree Table using 99% of the rates for all ages with generational projection using scale MP-2019.

## Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
December 31, 2022 and 2021

The following health care costs assumptions were updated and used in the roll forward calculation for the HCTF:

- Initial per capita health care costs for those PERACare enrollees under the PERA benefit structure who are expected to attain age 65 and older ages and are not eligible for premium-free Medicare Part A benefits were updated to reflect the change in costs for the 2021 plan year.
- The health care cost trend rates for Medicare Part A premiums were revised to reflect the then-current expectation of future increases in rates of inflation applicable to Medicare Part A premiums.

Actuarial assumptions pertaining to per capita health care costs and their related trend rates are analyzed and updated annually by PERA Board's actuary, as discussed above.

The actuarial assumptions used in the December 31, 2020, valuation were based on the results of the 2020 experience analysis for the period January 1, 2016, through December 31, 2019, and were reviewed and adopted by the PERA Board at their November 20, 2020 meeting.

The long-term expected return on plan assets is reviewed as part of regular experience studies prepared every four to five years for PERA. Recently this assumption has been reviewed more frequently. The most recent analyses were outlined in the Experience Study report dated October 28, 2020.

Several factors are considered in evaluating the long-term rate of return assumption, including long-term historical data, estimates inherent in current market data and a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected return, net of investment expense and inflation) were developed for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentages and then adding expected inflation.

As of the most recent reaffirmation of the long-term rate of return, the target asset allocation and best estimates of geometric real rates of return for each major asset class are summarized in the table as follows:

<b>Asset Class</b>	<b>Target Allocation</b>	<b>30 Year Expected Geometric Real Rate of Return</b>
Global Equity	54.0%	5.6%
Fixed Income	23.0	1.3
Private Equity	8.5	7.1
Real Estate	8.5	4.4
Alternatives	6.0	4.7
Total	100.00%	

In setting the long-term expected rate of return, projections employed to model future returns provide a range of expected long-term returns that, including expected inflation, ultimately support a long-term expected nominal rate of return assumption of 7.25%.



## Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
December 31, 2022 and 2021

### Sensitivity of the Authority's Proportionate Share of the Net OPEB Liability to Changes in the Health Care Cost Trend Rates

The following presents the net OPEB liability using the current health care cost trend rates applicable to the PERA benefit structure, as well as if it were calculated using health care cost trend rates that are one percentage point lower or one percentage point higher than the current rates:

2022	1% Decrease	Current Trend Rates	1% Increase
Initial PERACare Medicare trend rate	3.50%	%	5.50%
Ultimate PERACare Medicare trend rate	3.50%	%	5.50%
Initial Medicare Part A trend rate	2.75%	%	4.75%
Ultimate Medicare Part A trend rate	3.50%	%	5.50%
Net OPEB Liability	\$ 167,935	\$ 172,901	\$ 178,653

2021	1% Decrease	Current Trend Rates	1% Increase
Initial PERACare Medicare trend rate	7.10%	8.10%	9.10%
Ultimate PERACare Medicare trend rate	3.50%	4.50%	5.50%
Initial Medicare Part A trend rate	2.50%	3.50%	4.50%
Ultimate Medicare Part A trend rate	3.50%	4.50%	5.50%
Net OPEB Liability	\$ 161,851	\$166,146	\$ 171,145

### Discount Rate

The discount rate used to measure the total OPEB liability was 7.25%. The basis for the projection of liabilities and the FNP used to determine the discount rate was an actuarial valuation performed as of December 31, 2020, and the financial status of the HCTF as of the prior measurement date (December 31, 2020). In addition, the following methods and assumptions were used in the projection of cash flows:

- Updated health care cost trend rates for Medicare Part A premiums as of the December 31, 2021 and 2020, measurement dates.
- Total covered payroll for the initial projection year consists of the covered payroll of the active membership present on the valuation date and the covered payroll of future plan members assumed to be hired during the year. In subsequent projection years, total covered payroll was assumed to increase annually at a rate of 3.00%.
- Employer contributions were assumed to be made at rates equal to the fixed statutory rates specified in law and effective as of the measurement date.
- Employer contributions and the amount of total service costs for future plan members were based upon a process to estimate future actuarially determined contributions assuming an analogous future plan member growth rate.

## Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
December 31, 2022 and 2021

- Estimated transfers of dollars into the HCTF representing a portion of purchase service agreements intended to cover the costs associated with OPEB benefits.
- Benefit payments and contributions were assumed to be made at the middle of the year.

Based on the above assumptions and methods, the projection test indicates the HCTF's fiduciary net position was projected to make all projected future benefit payments of current members. Therefore, the long-term expected rate of return of 7.25% on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability. The discount rate determination does not use the municipal bond index rate, and therefore, the discount rate is 7.25%. There was no change in the discount rate from the prior measurement date.

### Sensitivity of the Authority's Proportionate Share of the Net OPEB liability to Changes in the Discount Rate

The following presents the proportionate share of the net OPEB liability calculated using the discount rate of 7.25%, as well as what the proportionate share of the net OPEB liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate:

	2022		
	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
Authority's proportionate share of the net OPEB liability	\$ 200,806	\$ 172,901	\$ 149,065

	2021		
	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
Authority's proportionate share of the net OPEB liability	\$ 190,323	\$ 166,146	\$ 145,488

Detailed information about the HCTF's fiduciary net position is available in PERA's annual comprehensive financial report which can be obtained at [www.copera.org/investments/pera-financial-reports](http://www.copera.org/investments/pera-financial-reports).

## 6. Voluntary Investment Program

### Plan Description

Employees of the Authority that are also members of the LGDTF may voluntarily contribute to the Voluntary Investment Program, an Internal Revenue Code Section 401(k) defined contribution plan administered by PERA. Title 24, Article 51, Part 14 of the C.R.S., as amended, assigns the authority to establish the Plan provisions to the PERA Board of Trustees. PERA issues a publicly available CAFR which includes additional information on the Voluntary Investment Program. That report can be obtained at [www.copera.org/investments/pera-financial-reports](http://www.copera.org/investments/pera-financial-reports).

# Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
December 31, 2022 and 2021

## Funding Policy

The Voluntary Investment Program is funded by voluntary member contributions up to the maximum limits set by the Internal Revenue Service, as established under Title 24, Article 51, Section 1402 of the CRS, as amended. In addition, the Authority has agreed to match employee contributions up to 3% of covered salary as determined by the Internal Revenue Service. Employees are immediately vested in their own contributions, employer contributions and investment earnings. For the year ended December 31, 2022 and 2021 program members contributed \$53,171 and \$23,577 and the Authority recognized pension expense of \$14,145 and \$8,742, respectively, for the Voluntary Investment Program.

## 7. Risk Management

The Authority is exposed to various risk of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; injuries to employees; and natural disasters.

The Authority is a member of the Colorado Special District Property and Liability Pool (CSDPLP). The Authority has joined together with other special districts in the State of Colorado. This is a public entity risk pool currently operating as a common risk management and insurance program for members. The Authority pays annual contributions for its property and casualty insurance coverage. The intergovernmental agreement provides that the pool will be financially self-sustaining through member contributions and additional assessments, if necessary, and the pool will purchase excess insurance through commercial companies for members' claims in excess of specified self-insurance retention.

At December 31, 2021 (the most current audited financial statements) CSDPLP has total admitted assets of \$68,195,261, liabilities of \$46,165,251 and unassigned surplus of \$22,030,010. The liability amount includes no long-term debt. Total revenue for 2021 amounted to \$24,889,624, investment income of \$482,027 and total expenses were \$25,123,490 resulting in a net income of \$248,161. The amount of the District's share of these amounts is less than 1%.

## 8. Commitments and Contingencies

### Self- Insurance

The Authority is self-insured for property and liability insurance. As discussed in Note 7, the Authority is a member of the CSDPLP. The CSDPLP has a legal obligation for claims against its members to the extent that funds are available in its annually established loss fund and amounts are available from insurance providers under excess specific and aggregate insurance contracts. Losses incurred in excess of loss funds and amounts recoverable from excess insurance are direct liabilities of the participating members. CSDPLP has indicated that the amount of any excess losses would be billed to members in proportion to their contributions in the year such excess occurs.

No current claims are expected to be settled in a manner which would adversely affect the Authority.

## 9. Related-Party Transactions

As described in Note 1, the Authority has granted water treatment capacity to the Districts. Substantially all of the revenue of the Authority is derived from the Districts. Therefore, the Authority's operations are economically dependent on the continued utilization of the Authority's facilities by the Districts.

# Soldier Canyon Water Treatment Authority

Notes to Financial Statements  
December 31, 2022 and 2021

The following revenues were billed to the Districts and the following amounts were owed from the Districts to the Authority:

December 31,	<u>2022</u>	<u>2021</u>
<b>Operating Revenues:</b>		
Fort Collins/Loveland Water District	\$ 1,781,119	\$ 1,699,570
East Larimer County Water District	1,006,067	1,087,883
North Weld County Water District	<u>1,814,061</u>	<u>1,774,240</u>
Total operating revenues	<u>\$ 4,601,247</u>	<u>\$ 4,561,693</u>
December 31,	<u>2022</u>	<u>2021</u>
<b>Receivables, Participants:</b>		
Fort Collins/Loveland Water District	\$ 218,977	\$ 638,308
East Larimer County Water District	132,754	242,145
North Weld County Water District	<u>228,037</u>	<u>654,831</u>
Total receivables, participants	<u>\$ 579,768</u>	<u>\$ 1,535,284</u>

## 10. TABOR Compliance

In November 1992, Colorado voters passed an amendment (TABOR or the Amendment) to the State Constitution (Article X, Section 20) which limits the revenue raising and spending abilities of state and local governments. The limits on property taxes, revenue and "fiscal year spending" include allowable annual increases tied to inflation and local growth in construction valuation. Fiscal year spending, as defined by the Amendment, excludes spending from certain revenue and financing sources such as federal funds, gifts, property sales, fund transfers, damage awards and fund reserves (balances). The Amendment requires voter approval for any increase in mill levy or tax rates, new taxes or creation of multi-year debt. Revenue earned in excess of the "spending limit" must be refunded or approved to be retained by the Authority under specified voting requirements by the entire electorate.

The Authority believes it is in compliance with the provisions of TABOR. However, TABOR is complex and subject to interpretation. Many of its provisions will require judicial interpretation.

## 11. Subsequent Events

The Authority evaluated subsequent events through April \_\_, 2023 the date these financial statements were available to be issued. There were no material subsequent events that required recognition or additional disclosure.

**REQUIRED SUPPLEMENTARY INFORMATION**

## Soldier Canyon Water Treatment Authority

Schedule of the Authority's Proportionate Share of the Net Pension Liability (Asset)\*

December 31, 2022

	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Authority's proportion of the net pension liability	0.25829%	0.22916%	0.22676%	0.23174%	0.22899%	0.22465%
Authority's proportionate share of the net pension liability	\$ (221,454)	\$ 1,194,209	\$ 1,658,503	\$ 2,913,453	\$ 2,549,690	\$ 3,033,489
Authority's covered payroll	\$ 2,015,927	\$ 1,712,369	\$ 1,555,242	\$ 1,521,621	\$ 1,329,979	\$ 1,306,741
Authority's proportionate share of the net pension liability as a percentage of its covered payroll	10.99%	69.74%	106.64%	191.47%	191.71%	232.14%
Plan fiduciary net position as a percentage of the total pension	101.49%	90.88%	86.30%	75.96%	79.37%	73.60%

\* The amounts presented for each fiscal year were determined as of 12/31 of the prior year.

These schedules are presented to illustrate the requirements to show information for 10 years.

However, until a full 10-year trend is compiled, information is presented for those years for which information is available.

## Soldier Canyon Water Treatment Authority

Schedule of Authority Contributions - Pension\*

December 31, 2022

	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Statutorily Required Contribution	\$ 260,906	\$ 255,620	\$ 217,128	\$ 197,205	\$ 192,942	\$ 168,641
Contributions in Relation to the Statutorily Required Contribution	260,906	255,620	217,128	197,205	192,942	168,641
Contribution Deficiency (Excess)	-	-	-	-	-	-
Covered Payroll	1,996,564	2,015,927	1,712,369	1,555,242	1,521,621	1,329,979
Contributions as a Percentage of Covered Payroll	13.07%	12.68%	12.68%	12.68%	12.68%	12.68%

*These schedules are presented to illustrate the requirements to show information for 10 years. However, until a full 10-year trend is compiled, information is presented for those years for which information is available.*



## Soldier Canyon Water Treatment Authority

### Schedule of the Authority's Proportionate Share of the Net OPEB Liability\*

December 31, 2022

	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Authority's proportion of the net OPEB liability	0.02005%	0.01748%	0.01737%	0.01797%	0.01779%	0.01724%
Authority's proportionate share of the net OPEB liability	\$ 172,901	\$ 166,146	\$ 195,206	\$ 244,508	\$ 231,250	\$ 208,847
Authority's covered payroll	2,015,927	1,712,369	1,555,242	1,521,621	1,329,979	1,306,741
Authority's proportionate share of the net OPEB liability as a percentage of its covered payroll	8.58%	9.70%	12.55%	16.07%	17.39%	15.98%
Plan fiduciary net position as a percentage of the total OPEB liability	39.40%	32.78%	24.49%	17.03%	17.53%	16.72%

\* The amounts presented for each fiscal year were determined as of 12/31 of the prior year.

*These schedules are presented to illustrate the requirements to show information for 10 years. However, until a full 10-year trend is compiled, information is presented for those years for which information is available.*

## Soldier Canyon Water Treatment Authority

### Schedule of Authority Contributions - OPEB\*

December 31, 2022

	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Statutorily Required Contribution	\$ 20,365	\$ 20,562	\$ 17,466	\$ 15,863	\$ 15,521	\$ 13,566
Contributions in relation to the Statutorily Required Contribution	20,365	20,562	17,466	15,863	15,521	13,566
Contribution Deficiency (Excess)	-	-	-	-	-	-
Covered Payroll	\$ 1,996,564	\$ 2,015,927	\$ 1,712,369	\$ 1,555,242	\$ 1,521,621	\$ 1,329,979
Contributions as a Percentage of Covered Payroll	1.02%	1.02%	1.02%	1.02%	1.02%	1.02%

These schedules are presented to illustrate the requirements to show information for 10 years. However, until a full 10-year trend is compiled, information is presented for those years for which information is available.

## **SUPPLEMENTARY INFORMATION**

## Soldier Canyon Water Treatment Authority

Schedules of Revenues and Expenses - Budget and Actual (Budgetary Basis) (With Summarized Prior Year Information)  
 Years Ended December 31, 2022 and 2021

			<u>2022</u>	Variances With Final Budget Positive (Negative)	<u>2021</u>
	<u>Budgeted Amounts Original</u>	<u>Budgeted Amounts Final</u>	<u>Actual Amounts Budget Basis</u>		<u>Actual Amounts Budget Basis</u>
<b>Revenues and Contributions</b>					
Operating revenues:					
North Weld County Water District	\$ 1,837,358	\$ 1,837,358	\$ 1,814,061	\$ (23,297)	\$ 1,774,240
Fort Collins-Loveland Water District	1,795,741	1,795,741	1,781,119	(14,622)	1,699,570
East Larimer County Water District	1,008,707	1,008,707	1,006,067	(2,640)	1,087,883
Total operating revenues	4,641,806	4,641,806	4,601,247	(40,559)	4,561,693
Nonoperating revenue:					
Contributions from participants	1,770,734	1,770,734	1,770,732	(2)	9,765,862
Earnings on investments	234	234	20,574	20,340	844
Miscellaneous income	-	-	55,387	55,387	5,360
Total nonoperating revenues	1,770,968	1,770,968	1,846,693	75,725	9,772,066
Total revenues	6,412,774	6,412,774	6,447,940	35,166	14,333,759
<b>Expenditures</b>					
Operating and maintenance:					
Personnel	2,081,189	2,081,189	1,971,282	(109,907)	2,150,014
Employee benefits	719,315	719,315	(115,105)	(834,420)	307,011
Unemployment taxes	6,099	6,099	3,993	(2,106)	7,855
Payroll taxes	29,477	29,477	28,474	(1,003)	28,811
Source of supply	66,000	66,000	57,016	(8,984)	74,179
Chemicals	980,600	980,600	1,069,205	88,605	850,363
Supplies	88,710	88,710	100,840	12,130	102,490
Repairs	434,651	434,651	142,246	(292,405)	177,469
Telephone	10,410	10,410	12,380	1,970	17,163
Utilities, gas and electric	76,686	76,686	144,563	67,877	103,178
Miscellaneous	-	-	-	-	-
Water resources	103,996	103,996	240,468	136,472	155,301
Watershed expenses	41,321	41,321	14,223	(27,098)	17,724
Total operating and maintenance	4,638,454	4,638,454	3,669,585	(968,869)	3,991,558
<b>Administration and General</b>					
Insurance	100,000	100,000	167,582	67,582	78,642
Office supplies	33,372	33,372	23,460	(9,912)	27,294
Outside services	151,304	151,304	90,719	(60,585)	203,509
Publications	11,241	11,241	6,875	(4,366)	11,058
Directors' expenses	3,296	3,296	11,697	8,401	8,181
Total administration	299,213	299,213	300,333	1,120	328,684

## Soldier Canyon Water Treatment Authority

Schedules of Revenues and Expenses - Budget and Actual (Budgetary Basis) (With Summarized Prior Year Information)  
 Years Ended December 31, 2022 and 2021

	<u>Budgeted Amounts Original</u>	<u>Budgeted Amounts Final</u>	<u>Actula Amounts Budget Bassis</u>	<u>Variences With Final Budget Positive (Negative)</u>	<u>Actual Amounts Budget Bassis</u>
<b>Other</b>					
Capital asset acquisitions	\$ -	\$ -	\$ -	\$ -	\$ 9,927,096
Total other	-	-	-	-	9,927,096
Total expenditures	4,937,667	4,937,667	3,969,918	(967,749)	14,247,338
Excess (deficiency) of revenues over expenditures	1,475,107	1,475,107	2,478,022	\$ (932,583)	86,421
<b>Reconciling Items</b>					
Capital asset acquisitions			-		9,927,096
Depreciation			(3,037,842)		(890,327)
Change in net position			(559,820)		9,123,190
<b>Net Position, Beginning</b>			64,508,420		55,385,230
<b>Net position, Ending</b>			<u>\$ 63,948,600</u>		<u>\$ 64,508,420</u>

# SOLDIER CANYON WATER TREATMENT AUTHORITY

**To:** Soldier Canyon Water Treatment Authority Board

**From:** Mark Kempton, P.E., CWP

**Date:** May 11, 2023

**Re:** Proposed amendment to Authority Creation Agreement to include ownership of the Pleasant Valley Pipeline (PVP), Sed Basin, Screen and Horsetooth facilities

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**Table 1: Tentative Ownership in the PVP** (Source: Interim PVP Agreement Capital Costs - June 1999 Soldier Canyon Filter Plant Steering Committee Meeting Minutes)

Fort Collins	Capacity in the PVP - in % and MGD		
	ELCO	FCLWD	NWCWD
50% - 60 MGD	11.87%/14.25 MGD	19.38%/23.26 MGD	18.74%/22.49 MGD

**Table 2: Proposed Capacity in the PVP Sed Basin**(Source: Fort Collins IGA based on PVP flows)

Fort Collins	Capacity in the PVP Sed Basin – in %		
	ELCO	FCLWD	NWCWD
53%	11%	18%	18%

**Table 3: Proposed Capacity in the PVP Screen** (Source: Based on 50/50 PVP ownership and %s in Table 2 - Fort Collins IGA)

Fort Collins	Capacity in the PVP Screen – in %		
	ELCO	FCLWD	NWCWD
50%	11.6%	19.2%	19.2%

Table 4 is for Reference and comparison purposes only.

**Table 4: Authority Ownership** (Source: 2017 Authority Creation Agreement)

	Authority Ownership - in %		
	ELCO	FCLWD	NWCWD
	22.865%	38.405%	38.73%
50% for comparison to numbers above	11.43%	19.2%	19.37%

Tables 5 and 6 are for existing executed agreements with the individual Districts and have been requested to be included in the Creation Agreement for reference only.

**Table 5: Northern Water 57-inch Horsetooth Outlet Pipe Capacities** (Source: 1977 Agreement/w individual Districts and Northern Water)

	<b>Capacity in the HT Outlet Line - MGD</b>		
	<b>ELCO</b>	<b>FCLWD</b>	<b>NWCWD</b>
	35 MGD	9.1 MGD	16.4 MGD

**Table 6: Horsetooth Outlet Project Pump Station – 35.3 MGD maximum capacity** (Source: April 2020 Agreement/w individual Districts and Fort Collins)

<b>Fort Collins</b>	<b>Capacity in the HOP Pump Station – in % and MGD</b>		
	<b>ELCO</b>	<b>FCLWD</b>	<b>NWCWD</b>
43.3%/15.3 MGD	8.5%/3 MGD	14.2%/5 MGD	34%/12 MGD

**Soldier Canyon Water Treatment Authority - Treatment Capacity Share**

July 2022

District	Capacity Allocation (MGD)	Treatment Capacity Share (%)
ELCO	13.719	22.865%
Fort Collins - Loveland	23.043	38.405%
North Weld County	23.238	38.730%
<b>TOTAL</b>	<b>60.000 MGD</b>	<b>100.000%</b>