

WATER & SEWER BOARD AGENDA

Wednesday, February 20, 2019
2:00 p.m.

GREELEY CITY CENTER

1001 11TH Avenue

Greeley, CO 80631

1. Roll Call:

Chairman Harold Evans Mr. Bob Ruyle Mr. Joe Murphy Mr. Manuel Sisneros Mr. Roy Otto	Vice Chairman Mick Todd Mr. Fred Otis Mr. Tony Miller Mayor John Gates Mrs. Victoria Runkle
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2. Approval of Minutes
3. Approval of and/or Additions to Agenda

Consent Agenda

The Consent Agenda is a meeting management tool to allow the Board to handle several routine items with one action.

The Board or staff may request an item to be “pulled” off the Consent Agenda and considered separately under the next agenda item in the order they were listed.

End of Consent Agenda

4. Report: 2018 Financial Report
5. Report: 4th Quarter CIP Update
6. Report: Greeley Water Book Update
7. Report: WPCF Master Plan Update
8. Approve Holcim Augmentation Lease
9. Executive Session
10. Action: Approve Farm Lease



If, to effectively and fully participate in this meeting, you require an auxiliary aid or other assistance related to a disability, please contact Shannon Metcalf at 970-350-9818.

11. Legal Report

12. Director's Report

- Council Petition - Non-Potable Memo
- Board/Council Tour – Friday, August 23rd
- Meet with Windsor (Council to tour Bellvue)
- Colorado Water Congress Sponsorship was a Success!
- Greeley Water Rental Round Up
- Thank You Letter SAE Sponsorship

13. Such Other Business That May Be Brought Before the Board and Added to This Agenda by Motion of the Board



If, to effectively and fully participate in this meeting, you require an auxiliary aid or other assistance related to a disability, please contact Shannon Metcalf at 970-350-9818.

**City of Greeley
Water and Sewer Board
Minutes of January 16, 2019
Regular Board Meeting**

Chairman Harold Evans called the Water and Sewer Board meeting to order at 1:59 p.m. on Wednesday, January 16, 2019.

1. Roll Call

The Clerk called the roll and those present included:

Board Members:

Chairman Harold Evans, Fred Otis, Joe Murphy, Tony Miller, Manny Sisneros, Mayor Gates, Roy Otto, Victoria Runkle

Water and Sewer Department staff:

Water and Sewer Director Sean Chambers, Deputy Director Adam Jokerst, Business Manager Erik Dial, Water Resources Operations Manager Jennifer Petrzelka, Office Manager Shannon Metcalf and Senior Administrative Assistant Ettie Arnold

Legal Counsel:

Counsel to Water & Sewer Board Attorney Jim Noble, Environmental and Water Resources Attorney Jerrae Swanson, Environmental and Water Resources Attorney Dan Biwer, Environmental and Water Resources Attorney Aaron Goldman

Guests: Renee Wheeler, Finance Manager

2. Approval of Minutes

Mr. Murphy made a motion, seconded by Mr. Miller, to approve the December 19, 2018 Water and Sewer Board meeting minutes. The motion carried 5-0.

3. Approval of and/or Additions to Agenda

There were no changes made to the agenda.

Consent Agenda

4. Action: Approve Resolution Amending Greeley-Loveland System Yield Values

Resolution to amend Resolution 1, 1995 to utilize firm yield, instead of average yield, values for credit given to Greeley Loveland Irrigation Company shares, Lake Loveland rights, and Seven Lakes Irrigation Company shares transferred to the City in satisfaction of its raw water requirements. The resolution will mandate the use of firm yield values to determine credit given for Greeley-Loveland system water rights, and will replace the 1995 resolution in its entirety. Staff and legal counsel recommend approval of the enclosed resolution.

End of Consent Agenda

Mr. Miller made a motion, seconded by Mr. Murphy, to approve the item on Consent Agenda and its recommended action. The motion carried 5-0.

Items Removed from the Consent Agenda

There were no items removed from the Consent Agenda.

5. Action: Election of Officers

Mr. Miller nominated Harold Evans for Chairman and Mick Todd for Vice-Chairman of the Water and Sewer Board for 2019. There were no further nominations. Mr. Miller made motion, seconded by Mr. Otis, to elect Harold Evans as Chairman and Mick Todd as Vice-Chairman. The motion carried 5-0.

6. Action: Approve Acquisition of Farm and WSSC Water Rights

Mr. Chambers provided details about the Farm acquisition and the enclosed Purchase and Sale Agreement for Land and Water Rights. The Sellers own a parcel consisting of approximately 152 acres located to the northwest of Eaton and shares of stock in The Water Supply and Storage Company, water rights were historically used to irrigate this property. The total purchase price is \$3,949,670.00. The farm property includes a single-family residence built in 1925, and is currently occupied and farmed by tenants of the Sellers on the terms of a farm lease initially executed around 1967. The Sellers have agreed to convey the property free of this leasehold interest, so that Greeley may replace the agreement with its own comprehensive farm and water rights lease.

The Board directed staff to continue due diligence on the acquisition, and counter the present offer on the table to extend the Inspection Objection Deadline to February 21 and the Resolution Deadline to February 25. Mr. Miller made a motion, seconded by Mr.

Murphy to approve the enclosed purchase and sale agreement, subject to the Sellers' acceptance of the Inspection Objection and Resolution Deadlines extensions, to allow for the completion of an appraisal and further due diligence for presentation at the February Board meeting. The motion carried 5-0.

7. Report: 4th Quarter Water Court Update

Ms. Petrzalka gave an update on current Water Court cases. She explained since the last update in October, Greeley stipulated to 3 cases bringing the current number of pending Water Court cases where Greeley is an opposer to 10. This is a fifty percent decrease in cases since the end of 2017.

The Water Resource Division's outside legal and engineering expenses for 2018 to date is \$579,725. This is 102% of the total money spent on these services in 2017.

13. Legal Report

Mr. Noble stated there was one statement of opposition.

Mr. Murphy made motion seconded by Mr. Sisneros to authorize the filing of a statement of opposition in Case No. 18CW3193 for staff and legal counsel to seek resolution of issues raised by the case as consistent with Water and Sewer Board Resolution No. 3, 2015. The motion carried 5-0.

14. Executive Session

There was no Executive Session

14. Director's Report

Mr. Chambers gave a report on the following items:

- Appreciation for Vic Runkle for her years of service as Director of Finance, which included issuance of water and sewer bonds, increasing transparency and voter trust, and implementing priority based budgeting
- Poudre River Forum – February 1, 2019 at the Drake Centre in Fort Collins

15. Such Other Business That May be Brought Before the Board and Added to This Agenda by Motion of the Board

Chairman Evans adjourned the meeting at 3:13 p.m.

Harold Evans, Chairman

Shannon Metcalf, Office Manager

WATER & SEWER BOARD AGENDA FEBRUARY 20, 2019

ENCLOSURE X NO ENCLOSURE

ITEM NUMBER: 4

TITLE: REPORT: 2018 FINANCIAL REPORT

RECOMMENDATION: INFORMATIONAL ONLY

ADDITIONAL INFORMATION:

Please see the attached memorandum and supporting materials.



Water & Sewer Department MEMORANDUM

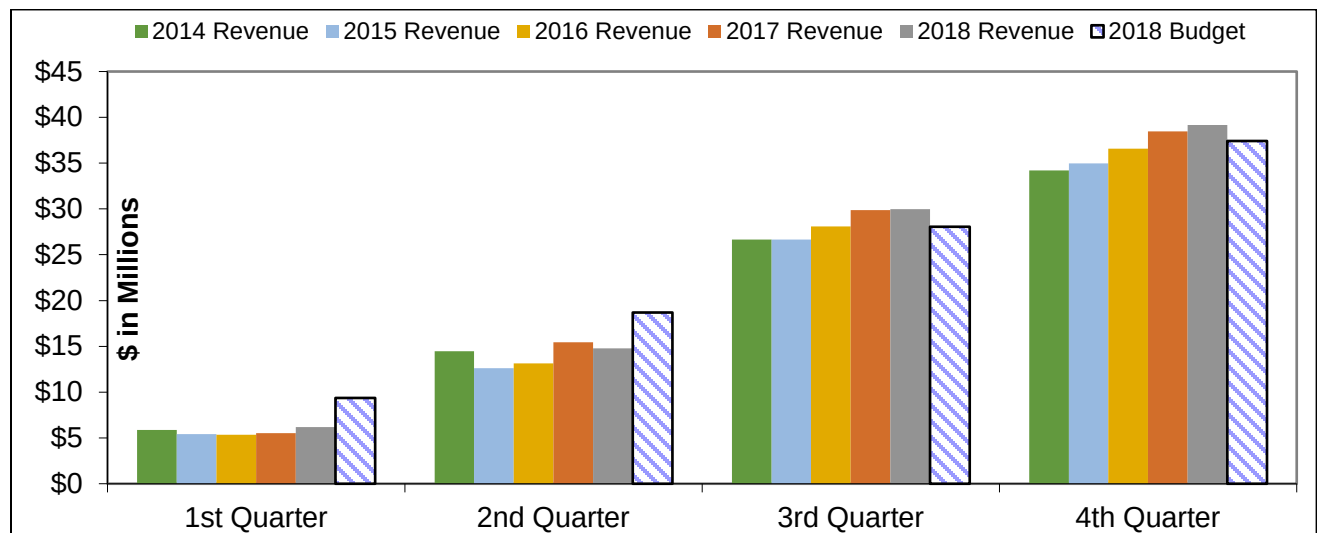
TO: Water & Sewer Board
FROM: Erik Dial, Utility Finance Business Manager
DATE: February 20, 2019
RE: Financial Report 4th Quarter 2018

Overview:

The financial report for the water and sewer funds through the fourth quarter of 2018 is enclosed. Both water and sewer revenue met the year-end budget target. Expenditures for both water and sewer were within budget.

Water Enterprise Revenue

Summary: Revenue through the end of 2018 exceeded the budgeted revenue projection for the year. Refer to Appendix B for detailed information on water revenue.



Residential: About 52% of the water revenue was from residential water use through the fourth quarter of the year and was slightly below budget. Revenue collected equaled 99.1% of the annual budget.

Commercial: Commercial revenue represents 13.2% of the overall water revenue and exceeded its budget for the year. Revenue collected equaled 110.7% of the annual budget.

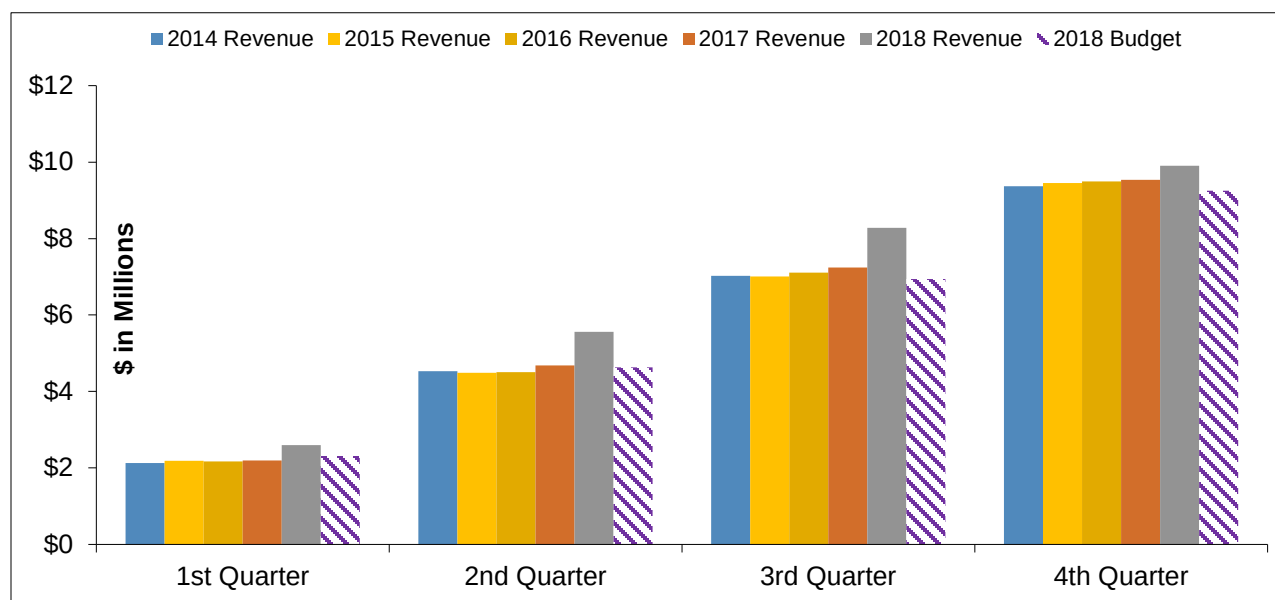
Large Users: Revenue from the large industrial users, Windsor, Milliken, and Evans represented 24.2% of the water revenue through the end of 2018. End of the year revenue from these customers was about 9.0% higher than 2017.

Miscellaneous Revenue

Hydrant water sales and augmentation water sales both were lower than 2017 but still above their budget targets. Water rental revenue to agriculture was higher than 2017 and well above budget. Revenues from these sources are volatile and revenue budgets are set conservatively.

Sewer Enterprise Revenue

Overall fourth quarter sewer revenue exceeded the year-end budget target. Refer to Appendix C for detailed information on sewer revenue.



Plant Investment Fees

Water plant investment fee (PIF) revenue totaled \$6,027,277 through the end of 2018. This represents 143% of the annual budget of \$4,211,507.

Sewer PIF revenue totaled \$3,095,450 through the end of 2018. This represents 102% of the annual budget of \$3,044,609.

Cash-in-Lieu of Raw Water Revenue

Three taps were sold that paid cash-in-lieu in 2018. The volume of water sold represented 3.5 acre feet and generated \$116,000.

Water Operations Expenditures

Water operations expenditures were below budget at year-end. See Appendix D for a summary of operating expenditures.

Sewer Operations Expenditures

Sewer operations expenditures were below budget at year-end. See Appendix E for a summary of operating expenditures.

Conclusion:

Both water and sewer revenue exceeded the revenue budgets for the year. Expenditures for both water and sewer operations were below budget for the year. PIF revenue for both water and sewer exceeded their year-end budgets.

2018 4th Quarter Water Demands

Appendix A Water Demand

2018								2017			
Consumption:	% of Usage	Consumption (Kgal)	Taps	Usage per tap	Modeled Use per tap Annual (Kgal)	Modeled Consumption Annual (Kgals)	% Consumed vs. Modeled	Consumption (1,000s gal)	Taps	Usage per tap	% Change 2018 v 2017
Inside Residential	35.12%	2,901,733	23,060	126	125	2,831,061	102%	2,805,353	22,772	123	3.4%
Multi-Family	12.57%	1,038,767	2,163	480	457	987,032	105%	1,011,159	2,151	470	2.7%
Inside Commercial	13.00%	1,074,207	1,840	584	596	1,032,134	104%	1,034,152	1,833	564	3.9%
Industrial User	9.88%	816,095	3	272,032	266,667	800,000	102%	796,146	3	265,382	2.5%
Industrial User	7.98%	659,244	2	329,622	330,875	661,750	100%	554,076	2	277,038	19.0%
Public Uses	3.56%	293,793	242	1,214	901	206,470	142%	330,542	238	1,389	-11.1%
Total inside		6,783,839				6,518,447		6,531,428			
Outside Residential	0.57%	47,466	487	97	105	45,864	103%	46,430	492	94	2.2%
Outside Multi-Family	0.06%	5,051	18	281	284	5,089	99%	5,592	18	311	-9.7%
Outside Commercial	0.14%	11,846	115	103	117	11,462	103%	11,305	116	97	4.8%
Industrial User	2.32%	191,344	1	191,344	250,000	250,000	77%	180,787	1	180,787	5.8%
Ag-Special Contract	0.41%	34,046	60	567	522	31,547	108%	33,160	63	526	2.7%
Evans	10.54%	870,708	14	62,193	59,536	829,960	105%	828,313	14	59,165	5.1%
Windsor	2.54%	210,039	3	70,013	69,026	210,541	100%	203,006	3	67,669	3.5%
Milliken	1.32%	108,927	1	108,927	110,000	110,000	99%	109,259	1	109,259	-0.3%
Total outside		1,479,427				1,494,463		1,417,852			
Total water demand:		8,263,266				8,012,910	103%	7,949,280			3.9%

2018 4th Quarter Water Revenue

Appendix B. Water Revenue

	2018 - 4th Quarter				2017 - 4th Quarter		2018 v 2017	
	% of Revenue	Revenue	Budget	% Budget Received	% of Revenue	Revenue	\$ Difference	% Actual Change
Revenue:								
Inside Residential	51.7%	20,186,344	20,364,863	99.1%	50.9%	19,566,003	620,341	3.2%
Inside Commercial	13.2%	5,162,510	4,665,000	110.7%	12.7%	4,889,517	272,993	5.6%
Inside Industrial	11.6%	4,518,371	4,578,728	98.7%	10.8%	4,155,299	363,072	8.7%
Evans	7.7%	3,007,596	2,990,600	100.6%	6.9%	2,664,866	342,730	12.9%
Windsor	2.1%	829,092	1,000,978	82.8%	1.8%	688,859	140,233	20.4%
Hydrant Water Sales	2.1%	817,990	375,000	218.1%	4.6%	1,775,702	(957,711)	-53.9%
Rerent fr. Purchases	1.8%	693,685	175,000	396.4%	1.3%	507,369	186,316	36.7%
Non-Potable	1.7%	670,358	400,000	167.6%	1.4%	554,723	115,635	20.8%
Industrial User	1.5%	599,120	700,360	85.5%	1.5%	571,573	27,547	4.8%
Outside Residential	1.5%	595,089	606,858	98.1%	1.5%	593,785	1,304	0.2%
Milliken	1.3%	519,484	529,236	98.2%	1.5%	592,200	(72,716)	-12.3%
Royalties	0.6%	240,013	0		0.1%	57,309	182,704	318.8%
Ag-Special Contract	0.4%	154,146	145,558	105.9%	0.3%	103,563	50,583	48.8%
Augmentation Sales	0.3%	130,584	125,000	104.5%	1.5%	578,113	(447,529)	-77.4%
Engineering Inspections	0.4%	147,035	40,000	367.6%	0.6%	237,765	(90,730)	-38.2%
Labor Reimbursement	0.4%	139,856	150,000	93.2%	0.8%	292,949	(153,093)	-52.3%
Other	0.4%	138,859	0		0.2%	58,018	80,841	139.3%
Outside Commercial	0.3%	136,428	134,906	101.1%	0.3%	129,736	6,692	5.2%
Sales to Departments	0.3%	103,934	200,000	52.0%	0.3%	130,514	(26,581)	-20.4%
Expense Reimbursement	0.2%	59,279	0		0.1%	55,034	4,245	7.7%
Rents from Land	0.1%	58,426	65,000	89.9%	0.2%	66,211	(7,785)	-11.8%
Sales to Outside Agencies	0.1%	56,420	75,000	75.2%	0.3%	103,740	(47,320)	-45.6%
Turn On Charges	0.1%	45,260	50,000	90.5%	0.1%	39,105	6,155	15.7%
Sales of Assets	0.1%	19,548	0		0.0%	6,253	13,295	212.6%
Mountain Plains Rental	0.0%	19,128	19,900	96.1%	0.0%	19,128	0	0.0%
Mtn View Meadows/Sharkstooth	0.0%	18,665	13,574	137.5%	0.0%	8,022	10,643	132.7%
Labor & Materials	0.0%	2,760	0		0.0%	1,803	956	53.0%
Damages Recovered	0.0%	2,590	0		0.0%	7,613	(5,023)	-66.0%
Insurance Recoveries	0.0%	794	0		0.0%	6,808	(6,014)	-88.3%
No. 3 Ditch	0.0%	186	0		0.0%	279	(93)	
Total Revenues:		39,073,548	37,405,561	104.5%		38,461,859	611,690	1.6%

2018 4th Quarter Sewer Revenue

Appendix C Sewer Revenue

Revenue:	2018 - 4th Quarter				2017 - 4th Quarter		2018 v 2017	
	% of Revenue	Revenue	Budget	% Budget Received	% of Revenue	Revenue	\$ Difference	% Actual Change
Residential & Flat Rate	66.9%	6,630,175	6,447,030	102.8%	69.5%	6,624,247	5,928	0.1%
Commercial I (Non-food services)	9.0%	888,000	890,290	99.7%	8.5%	813,710	74,291	9.1%
Commercial III (Restaurants)	6.9%	681,138	619,893	109.9%	6.8%	649,964	31,174	4.8%
Commercial II (Bars)	5.5%	541,033	506,744	106.8%	5.3%	508,668	32,365	6.4%
SIC 2026	2.5%	249,329	277,401	89.9%	2.6%	245,136	4,193	1.7%
SIC 2013	2.0%	196,882	188,124	104.7%	2.0%	195,212	1,669	0.9%
Commercial IV (Markets)	1.6%	162,596	110,984	146.5%	1.5%	147,121	15,475	10.5%
Royalties	1.7%	172,256	71,000	242.6%	1.2%	111,687	60,569	54.2%
Engineering Inspections	1.3%	129,657	32,000	405.2%	0.7%	64,681	64,975	100.5%
Sale of Assets	0.8%	80,228	0		0.3%	31,209	49,020	157.1%
Labor Reimbursement	0.6%	56,720	27,000	210.1%	0.7%	66,885	(10,164)	-15.2%
SIC 7218	0.5%	46,001	46,032	99.9%	0.3%	32,979	13,022	39.5%
Other	0.3%	31,690	0		0.0%	1,080	30,611	2835.5%
SIC 2034	0.2%	20,016	17,783	112.6%	0.2%	15,112	4,903	32.4%
Private Liquid Haulers	0.2%	16,155	12,000	134.6%	0.2%	18,594	(2,439)	-13.1%
Expense Reimbursement	0.1%	5,959	0		0.0%	0	5,959	
Commercial V (Mfg)	0.0%	4,058	4,789	84.7%	0.1%	5,614	(1,555)	-27.7%
Rents from Land	0.0%	4,350	4,000	108.8%	0.0%	2,464	1,886	76.5%
Insurance Recoveries	0.0%	2,284	0		0.0%	150	2,134	
Labor and Materials	0.0%	0	0		0.1%	4,932	(4,932)	
Damages Recovered	0.0%	0	0		0.3%	30,000	(30,000)	-100.0%
Total Revenues		9,916,243	9,255,070	107.1%		9,534,361	381,882	4.0%

Appendix D
Water Expenditures

<u>Description</u>	<u>2018 Budget</u>	<u>Encumbrances Outstanding</u>	<u>YTD Exp</u>	<u>YTD Exp. + Enc.</u>	<u>Budget \$'s Remaining</u>	<u>Budget Used</u>	<u>Target %</u>
Administration	1,297,466	3,850	1,238,258	1,242,108	55,358	95.4%	
Engineering	440,288	14,877	443,448	458,325	(18,037)	100.7%	
Computer/Phone User Charge	378,580	0	378,580	378,580	0	100.0%	
Liability Insurance	249,234	0	189,234	189,234	60,000	75.9%	
G&A	2,365,568	18,727	2,249,520	2,268,247	97,321	95.1%	100.0%
Services & Meters	461,831	0	424,141	424,141	37,690	91.8%	
Transmission & Reservoirs	1,102,810	517	1,142,791	1,143,308	(40,498)	103.6%	
Distribution	1,948,335	7,417	1,532,127	1,539,544	408,791	78.6%	
Inventory	275,000	0	143,682	143,682	131,318	52.2%	
Non-Potable	835,603	517	649,019	649,536	186,067	77.7%	
Transmission & Distribution	4,623,579	8,450	3,891,760	3,900,210	723,369	84.2%	100.0%
Water Resources	4,586,753	132,251	4,149,692	4,281,943	304,810	90.5%	
High Mountain Reservoirs	500,299	0	405,980	405,980	94,319	81.1%	
Water Conservation Program	571,690	6,675	506,523	513,198	58,492	88.6%	
Water Resources	5,658,742	138,926	5,062,196	5,201,121	457,621	89.5%	100.0%
Bellvue Filter Plant	2,266,046	0	1,644,823	1,644,823	621,223	72.6%	
Boyd Lake Filter Plant	2,240,110	34,512	1,801,094	1,835,607	404,503	80.4%	
Water Quality Program	345,450	20,101	142,220	162,321	183,129	41.2%	
Treatment	4,851,606	54,614	3,588,137	3,642,751	1,208,855	74.0%	100.0%

Appendix E
Sewer Expenditures

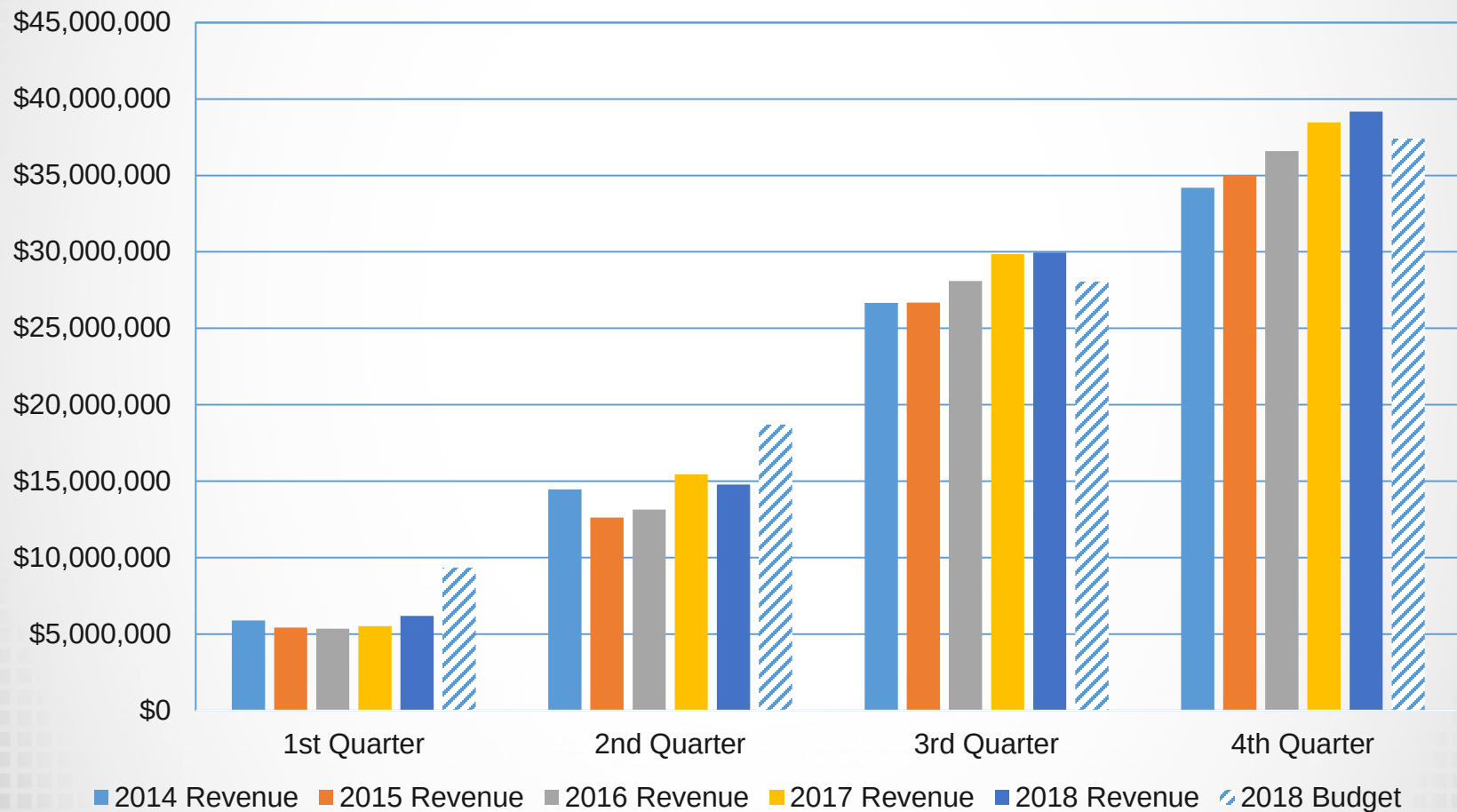
<u>Description</u>	<u>2018 Budget</u>	<u>Encumbrances Outstanding</u>	<u>YTD Exp</u>	<u>YTD Exp. + Enc.</u>	<u>Budget \$'s Remaining</u>	<u>Budget Used</u>	<u>Target %</u>
Engineering	192,615	0	187,896	187,896	4,719	97.6%	
Administration	278,112	1,375	270,805	272,180	5,932	97.4%	
Computer/Phone User Charge	166,625	0	166,625	166,625	0	100.0%	
Liability Insurance	249,234	0	249,234	249,234	0	100.0%	
G&A	886,586	1,375	874,560	875,935	10,651	98.6%	100.0%
Administration	498,834	0	375,467	375,467	123,367	75.3%	
Laboratory	361,528	0	292,240	292,240	69,288	80.8%	
Maintenance	769,214	55,675	710,581	766,256	2,958	92.4%	
Operations	1,807,122	19,815	2,000,191	2,020,006	(212,884)	110.7%	
Industrial Pretreatment	324,410	0	267,359	267,359	57,051	82.4%	
Wastewater Treatment	3,761,108	75,490	3,645,838	3,721,328	39,780	96.9%	100.0%
Wastewater Collection	1,306,269	0	1,060,164	1,060,164	246,105	81.2%	
Wastewater Collection	1,306,269	0	1,060,164	1,060,164	246,105	81.2%	100.0%
Total Sewer:	5,953,963	76,865	5,580,562	5,657,427	296,536	93.7%	100.0%



Water and Sewer 2018 4th Quarter Financial Report

February 20, 2019

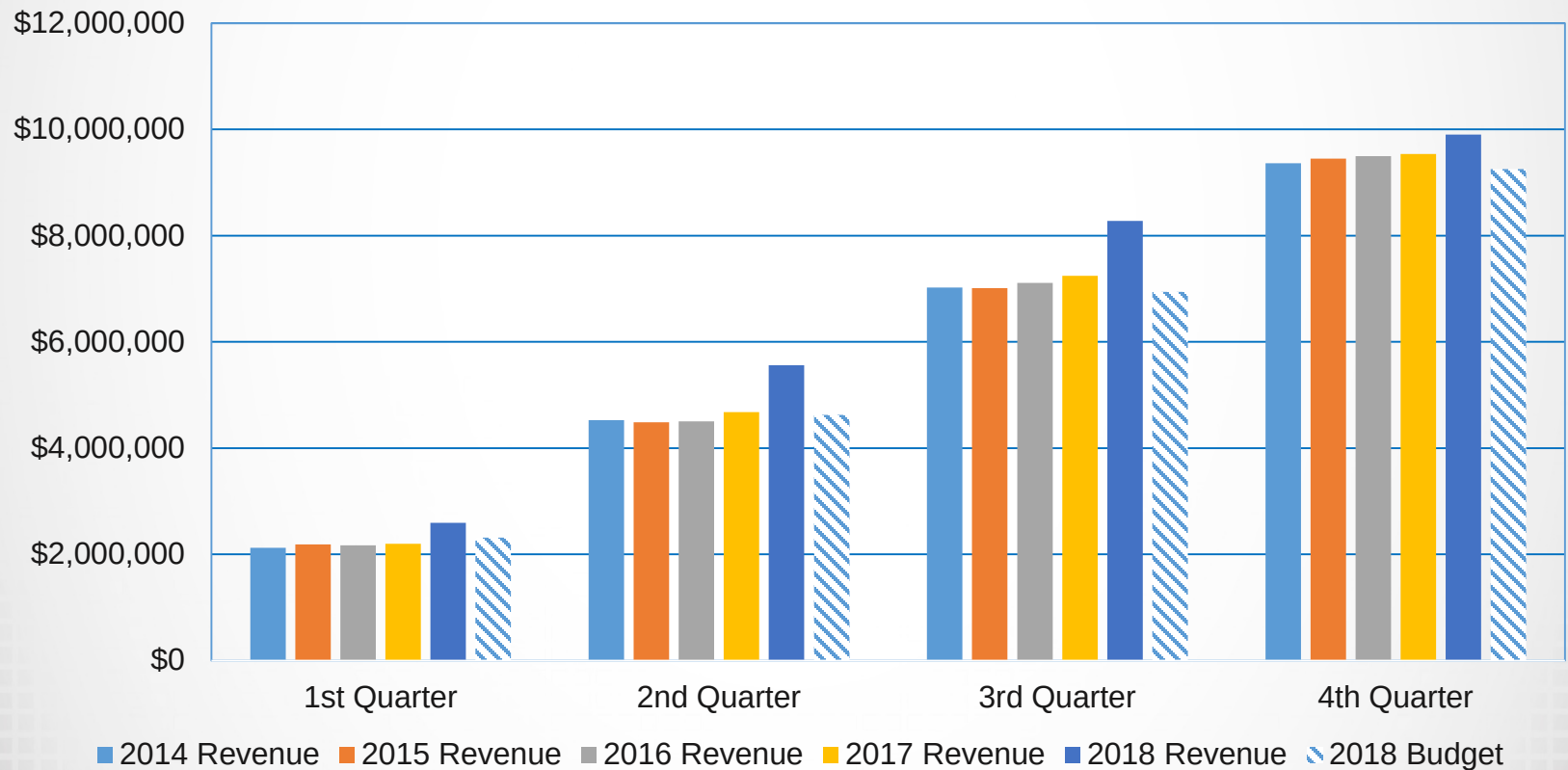
Water Operating Revenue



Water Highlights

- Strong account growth
- Usage per account generally in line with volume modeled
 - Dry late summer/fall
- Large water customers used more water in 2018
 - 24.2% of water sales revenue from 6 customers
- Miscellaneous revenue helpful
- Overall revenue exceeded budget

Sewer Operating Revenue



Sewer Highlights

- Strong account growth
- Commercial classes had revenue growth
- Royalty payments increased
 - Oil/gas
- Overall revenue exceeded budget

Plant Investment Fees

	Water	Sewer
2018 Budget	\$4,211,507	\$3,044,609
2018 Actual	\$6,027,277	\$3,095,450

Cash-in-Lieu

- 2018 revenue: \$116,000
- Volume of water sold: 3.5 acre feet

Questions?

WATER & SEWER BOARD AGENDA FEBRUARY 20, 2019

ENCLOSURE X

NO ENCLOSURE

ITEM NUMBER: 5

TITLE: REPORT: 4TH QUARTER CIP UPDATE

RECOMMENDATION: INFORMATIONAL ONLY

ADDITIONAL INFORMATION:

Staff will provide an update.

NORTH GREELEY SEWER IIA



Boring Pit UPRR



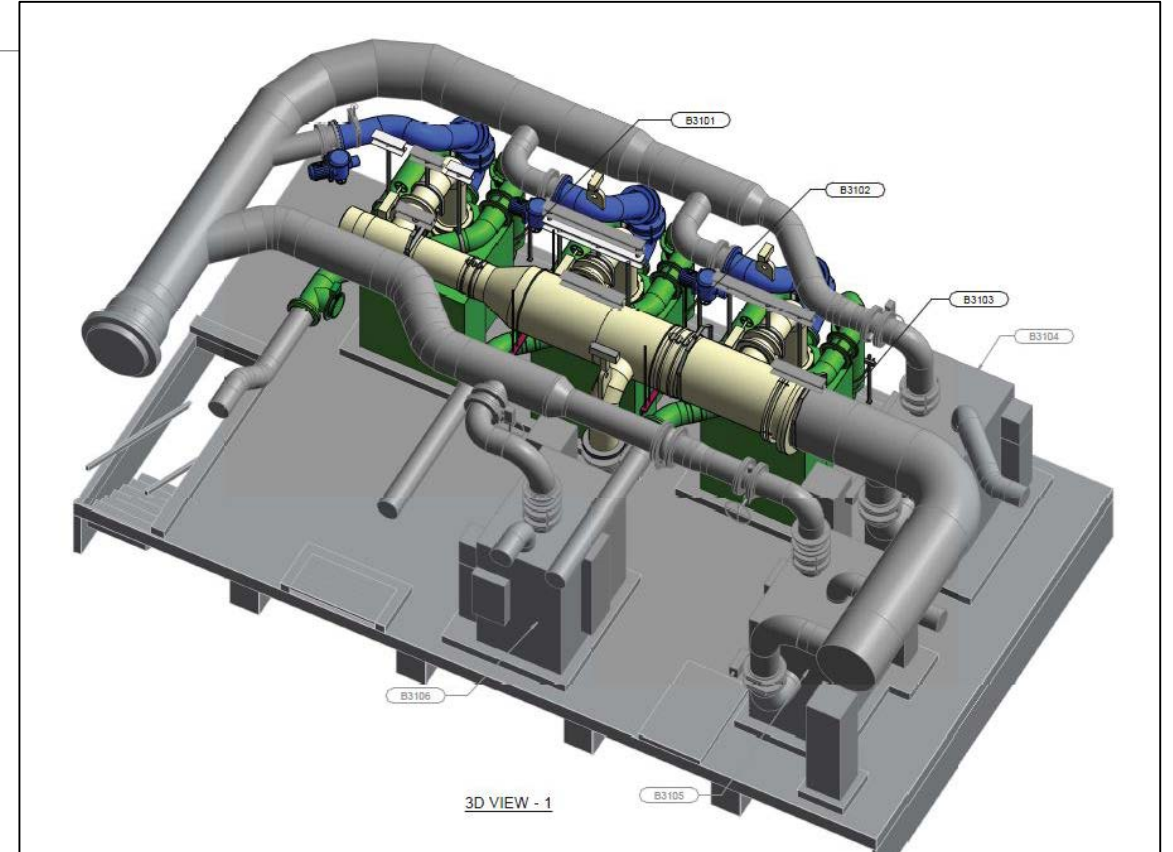
Boring Shaft UPRR Guided Pipe Hammer

2018 Budget: \$1,611,684

WPCF Blower Replacement Project



New Sulzer Blower Units



3D Model of Blower Room

2018 Budget: \$2,327,000

Disinfection Outreach and Verification



2018 Budget: \$2,860,000

Boyd Filter Media Replacement



Filter Sand Blasted



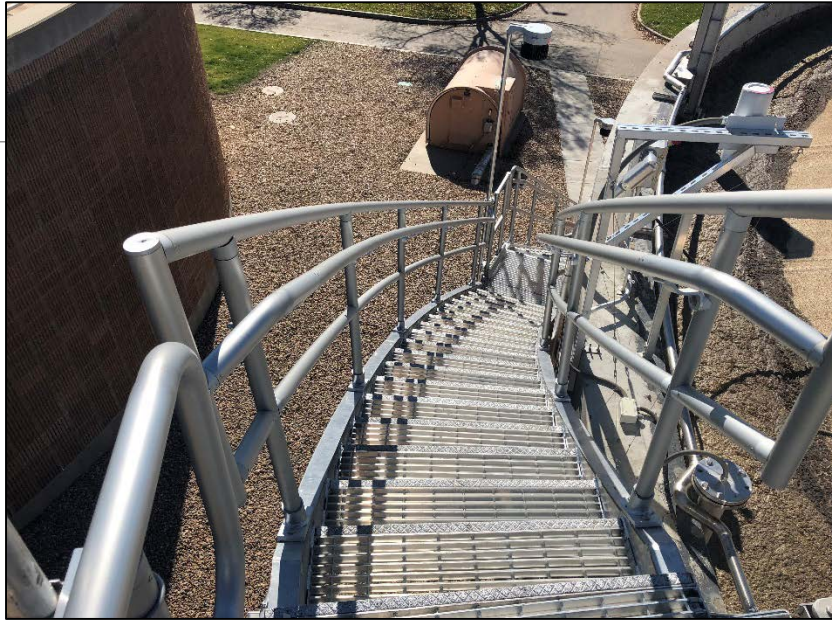
Anthracite & Sand Media – 17,000 Cubic Feet
Or 724 tons of media

2018-2019 Budget: \$1,547,000

WPCF SOLIDS PROCESS IMPROVEMENTS



New Linear motion mixer on top of new anaerobic primary digester #3.



New staircase to new primary anaerobic digester #3.



New sludge piping inside digester building.

2018 Budget: \$8,182,674

WPCF SOLIDS PROCESS IMPROVEMENTS



New sludge transfer pump inside digester building.

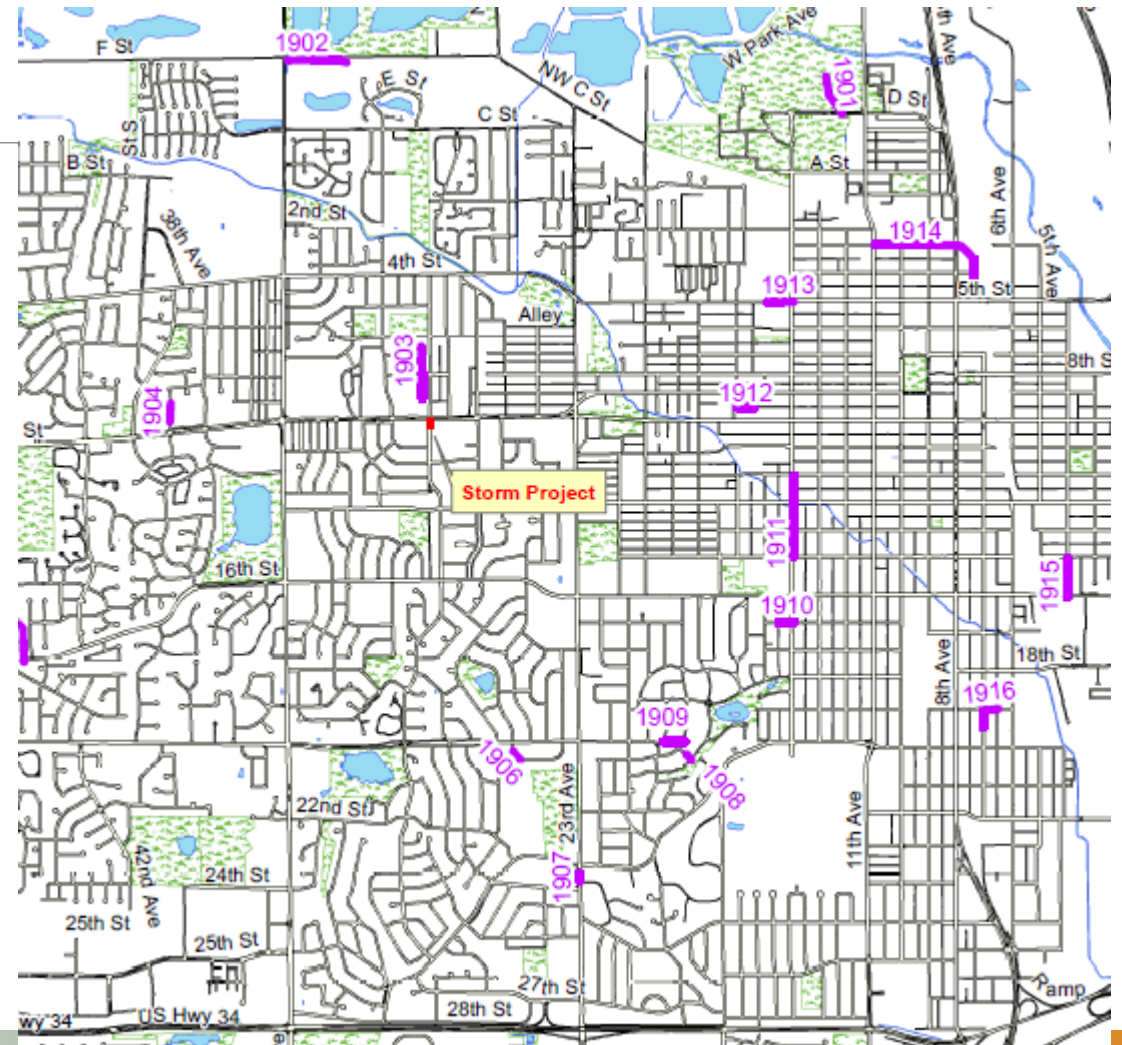
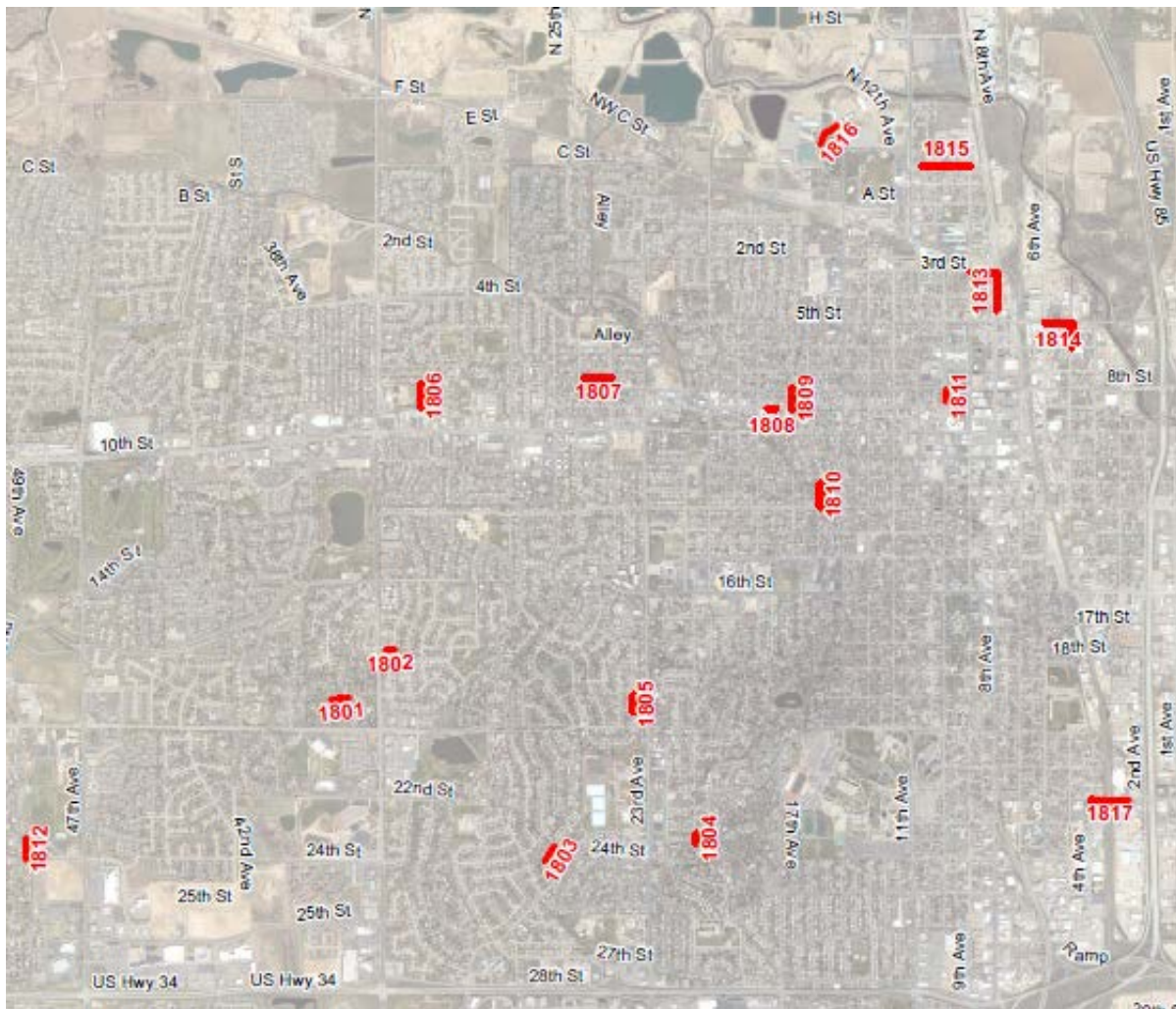


New PW Tech volute sludge thickener.



New polymer mixing equipment inside digester building.

TRENCHLESS MAIN & COLLECTOR REHABILITATION



2018 Total: \$520,000

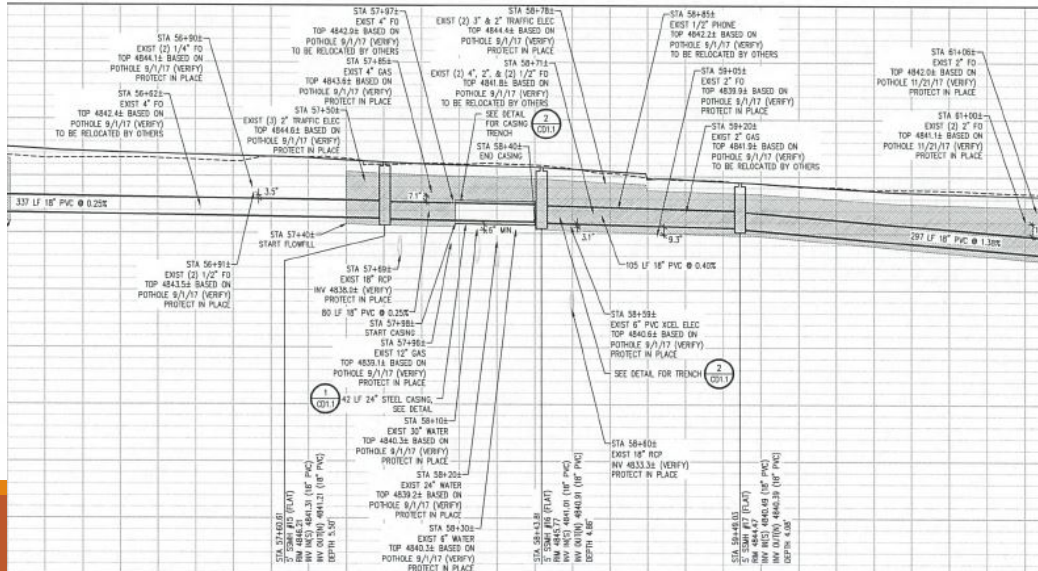
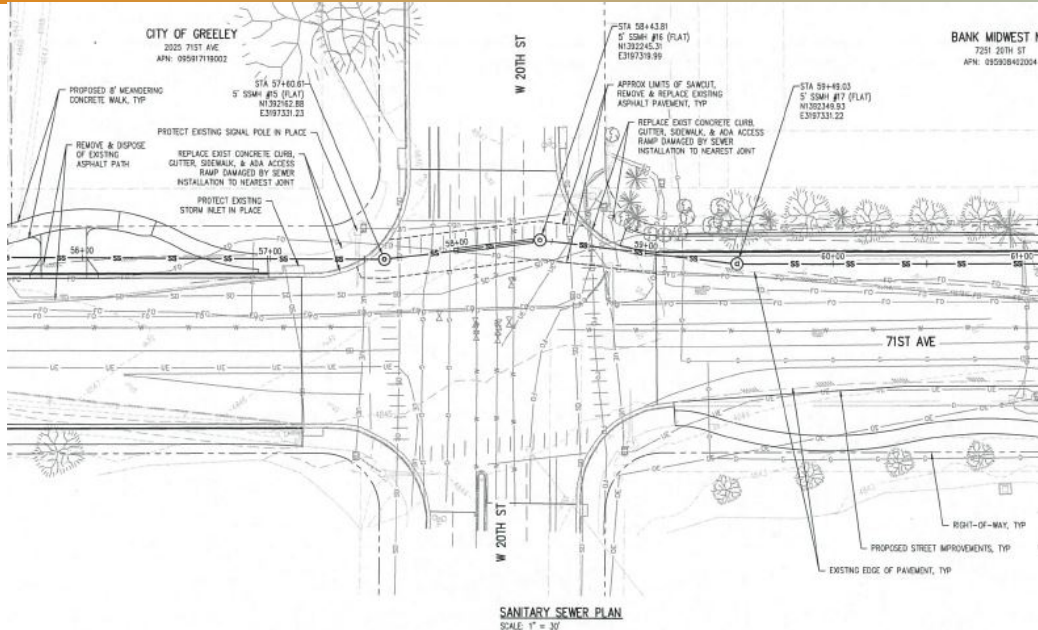
2019 Total: \$584,000

TRANSMISSION SYSTEM REHAB - SH287 PIPE REPLACEMENT



2017-2019 Budget: \$1,914,800

ASHCROFT DRAW SEWER PHASE II



2017 Budget: \$2,400,000

BELLVUE ROAD & BRIDGE REALIGNMENT



2017-2018 Budget: \$713,000

BELLVUE NEEDS ASSESEMENT PROJECTS



WTP Concrete Floor Being Poured



WTP New Design

BELLVUE NEEDS ASSESEMENT PROJECTS



Platte Settlers



Rebar for Operating Floor



Operating Walkway

2018-2020 Budget: \$25,457,710



THANK YOU!

Any Questions?



WATER & SEWER BOARD AGENDA FEBRUARY 20, 2019

ENCLOSURE _____

NO ENCLOSURE X

ITEM NUMBER: 6

TITLE: REPORT: GREELEY WATER BOOK UPDATE

RECOMMENDATION: INFORMATIONAL ONLY

ADDITIONAL INFORMATION:

Staff will provide an update.

WATER & SEWER BOARD AGENDA FEBRUARY 20, 2019

ENCLOSURE X NO ENCLOSURE

ITEM NUMBER: 7

TITLE: REPORT: WPCF MASTER PLAN UPDATE

RECOMMENDATION: INFORMATIONAL ONLY

ADDITIONAL INFORMATION:

Staff will provide an update.

MASTER PLAN FOCUS

1. Operational Reliability
2. Infrastructure Robustness
3. Facility Preparedness and Adaptability for the Future

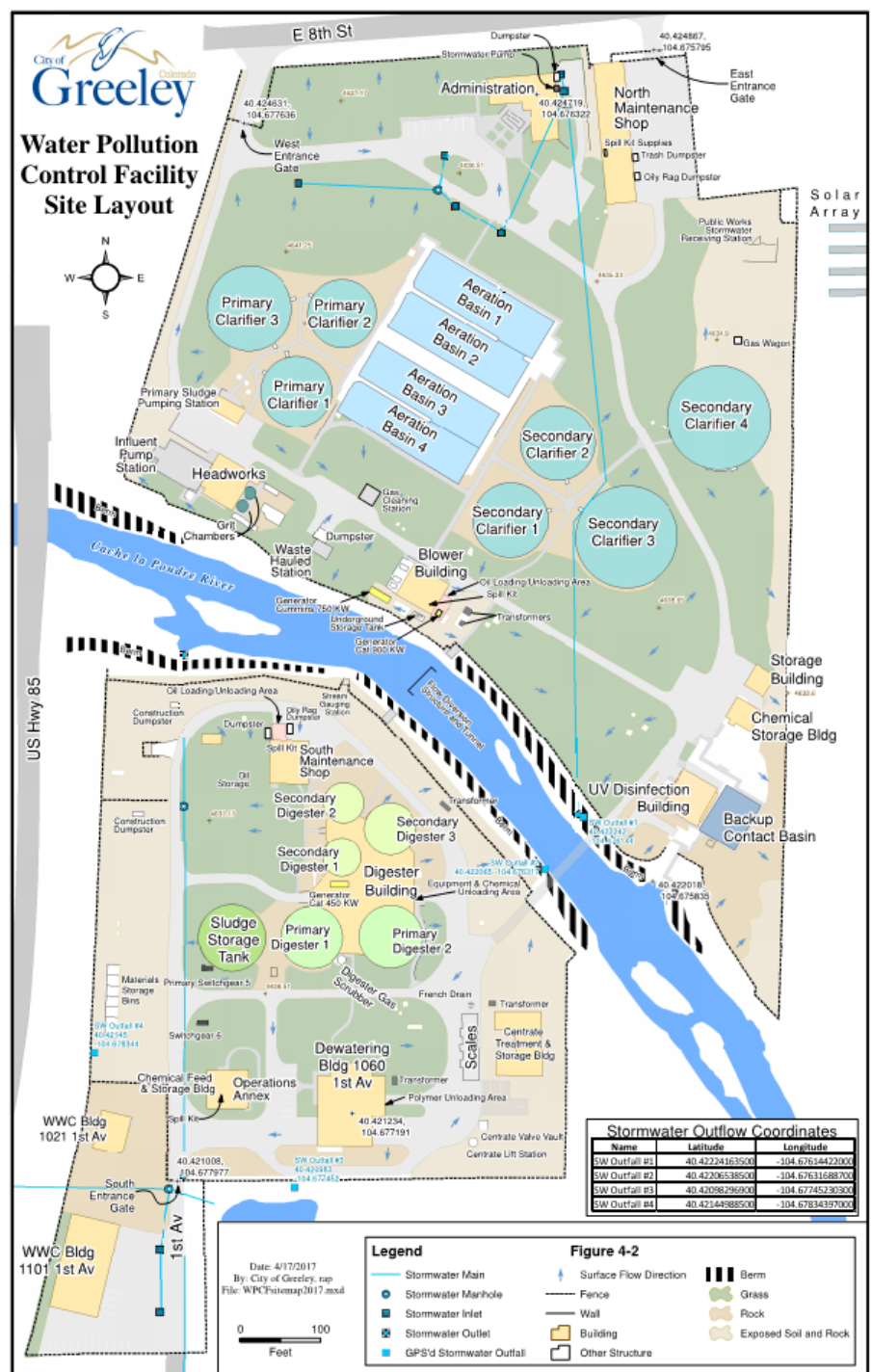


Water Pollution Control Facility Treatment and Nutrient Master Plan Summary

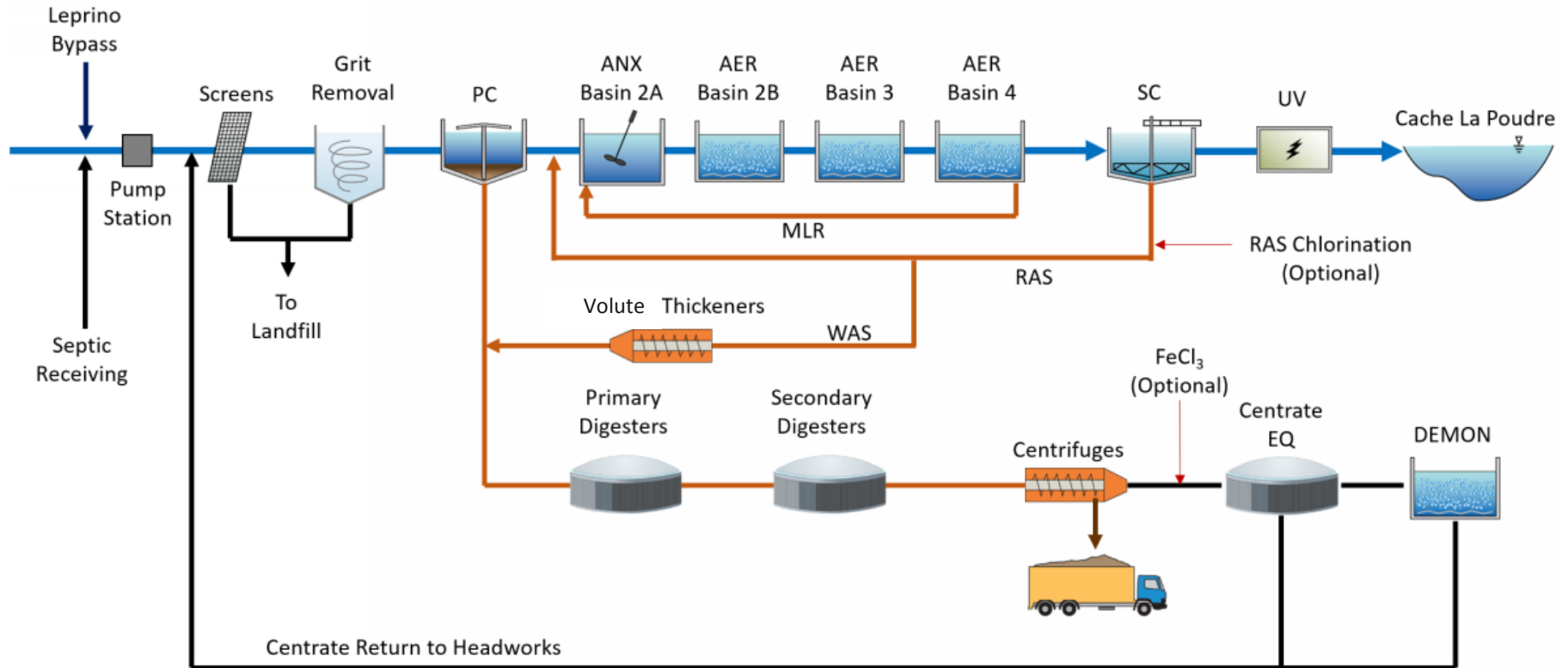
February 20, 2019



Greeley WPCF Site



Existing WPCF Treatment Process Schematic



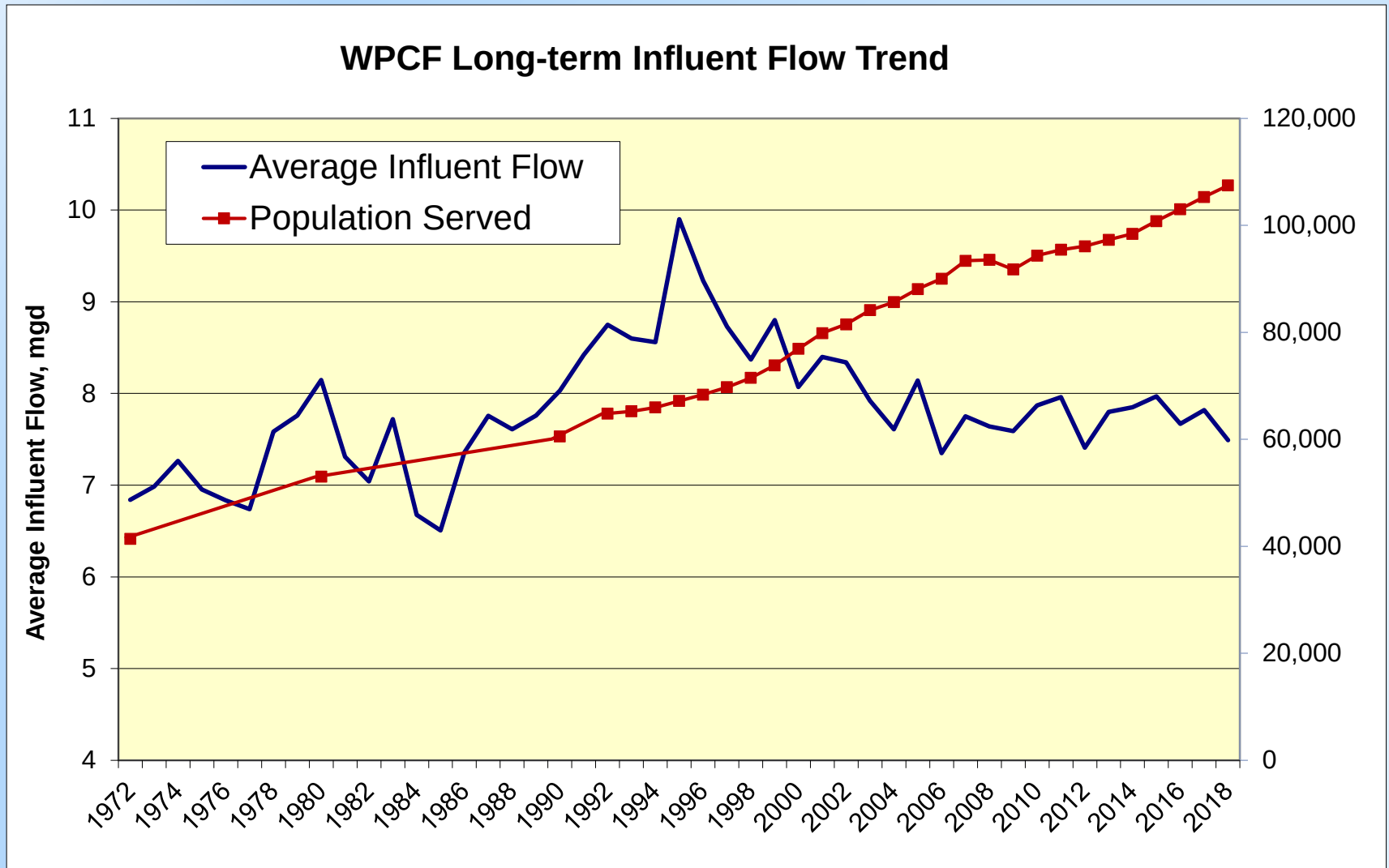
Key Master Plan Drivers

- Provide sufficient treatment capacity
- Comply with new regulations
- Renew asset condition and performance

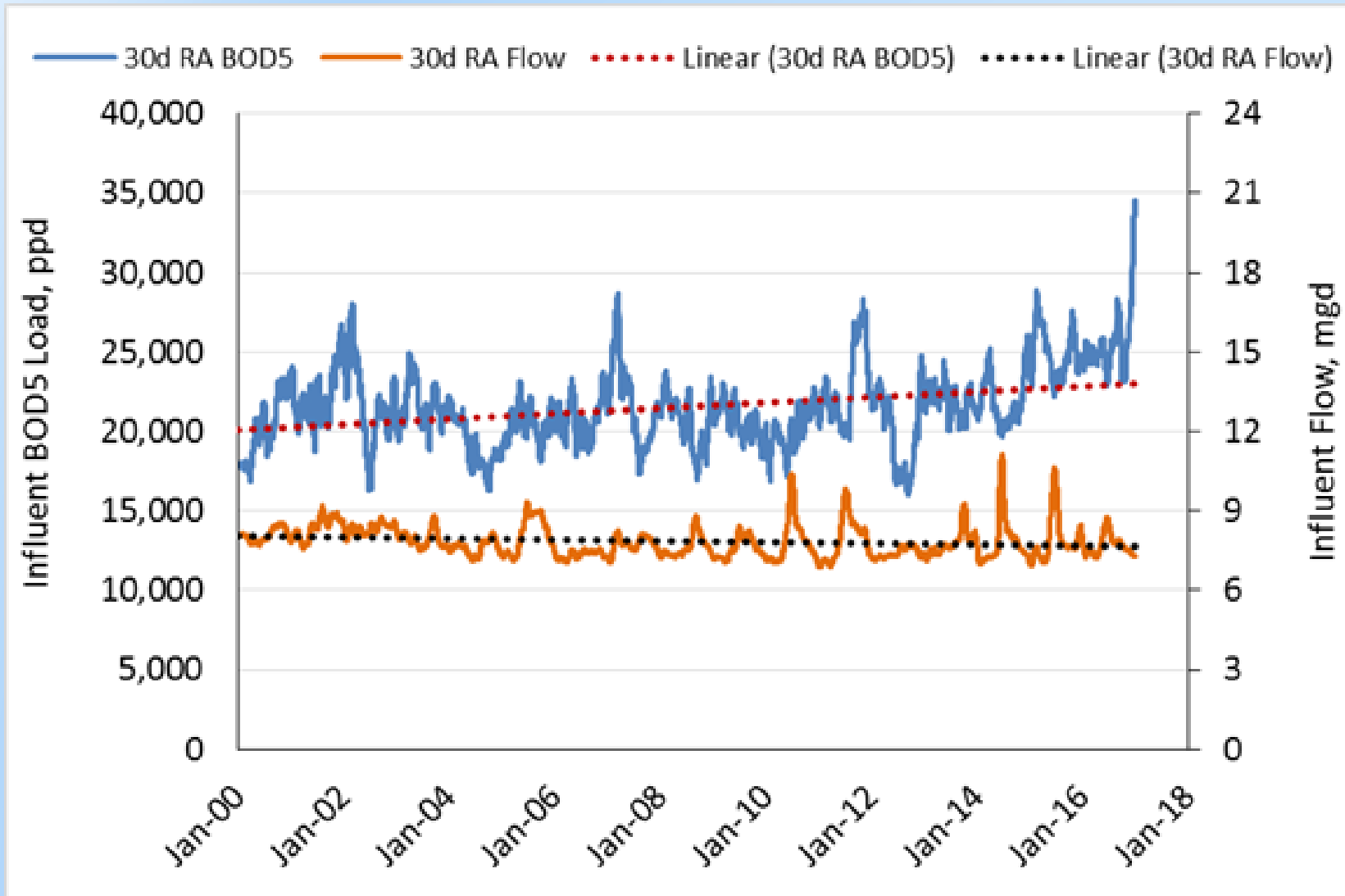
MASTER PLAN FOCUS

1. Operational Reliability
2. Infrastructure Robustness
3. Facility Preparedness and Adaptability for the Future

Long-Term Average Flows are Flat, Due to Water Conservation and Sewer Rehabilitation

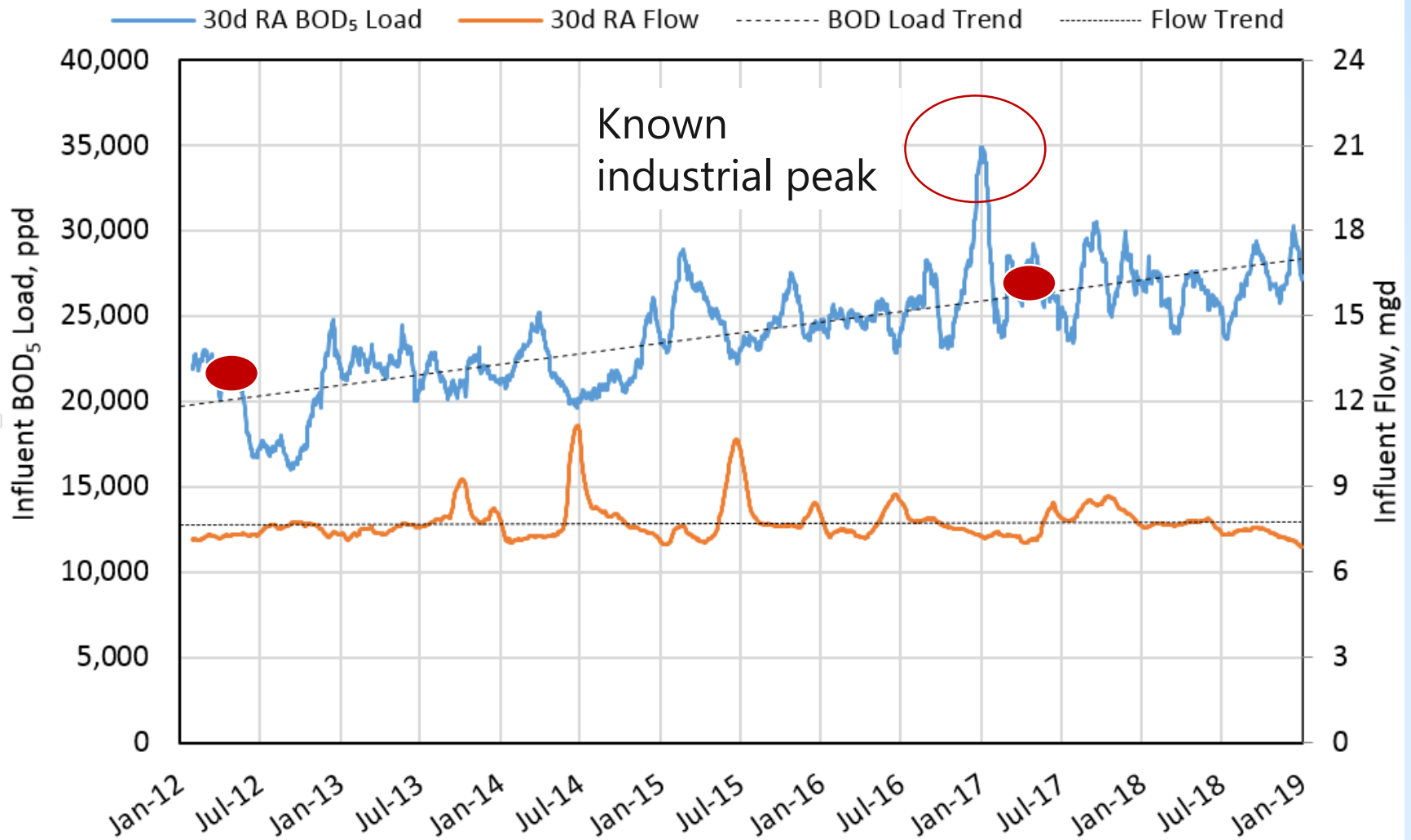


Loads Have Grown Disproportionately to Flows on a Long-Term Basis



Loads Have Grown Especially Disproportionately Since 2012

● 2009 WUP Projection (Average)



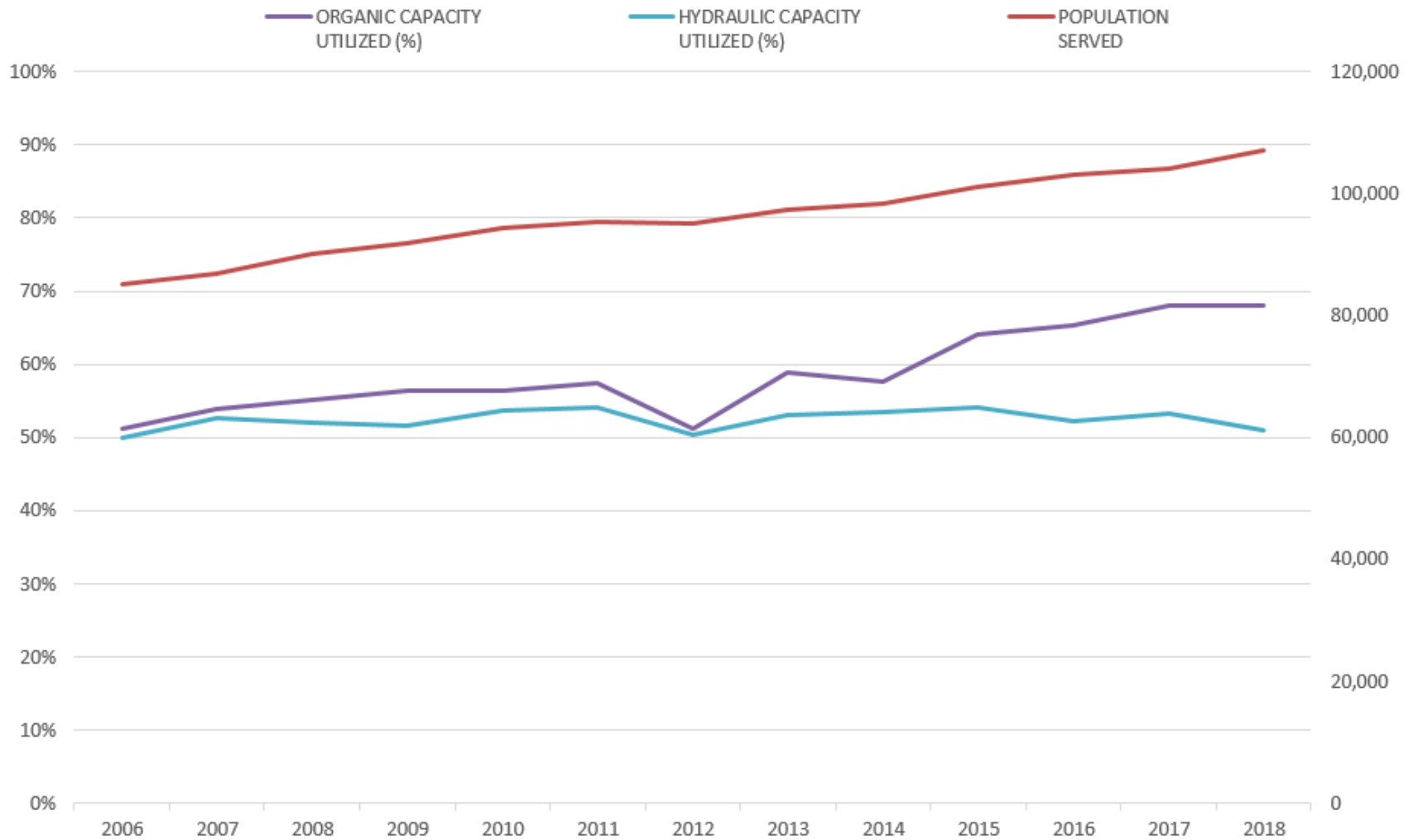
Current Influent Flows, Loads, and Design Concentrations

	ADAF	ADMMF
WPCF Influent Flow, mgd	7.8	11.2
Estimated Influent Loads		
BOD5, ppd	26,610	33,140
TSS, ppd	22,110	27,980
Ammonia, ppd	2,260	2,600
Total Phosphorus, ppd	580	790
Design Concentrations		
BOD5, mg/L	409	354
TSS, mg/L	340	300
Ammonia, mg/L	34.8	27.8
Total Phosphorus, mg/L	8.9	8.5

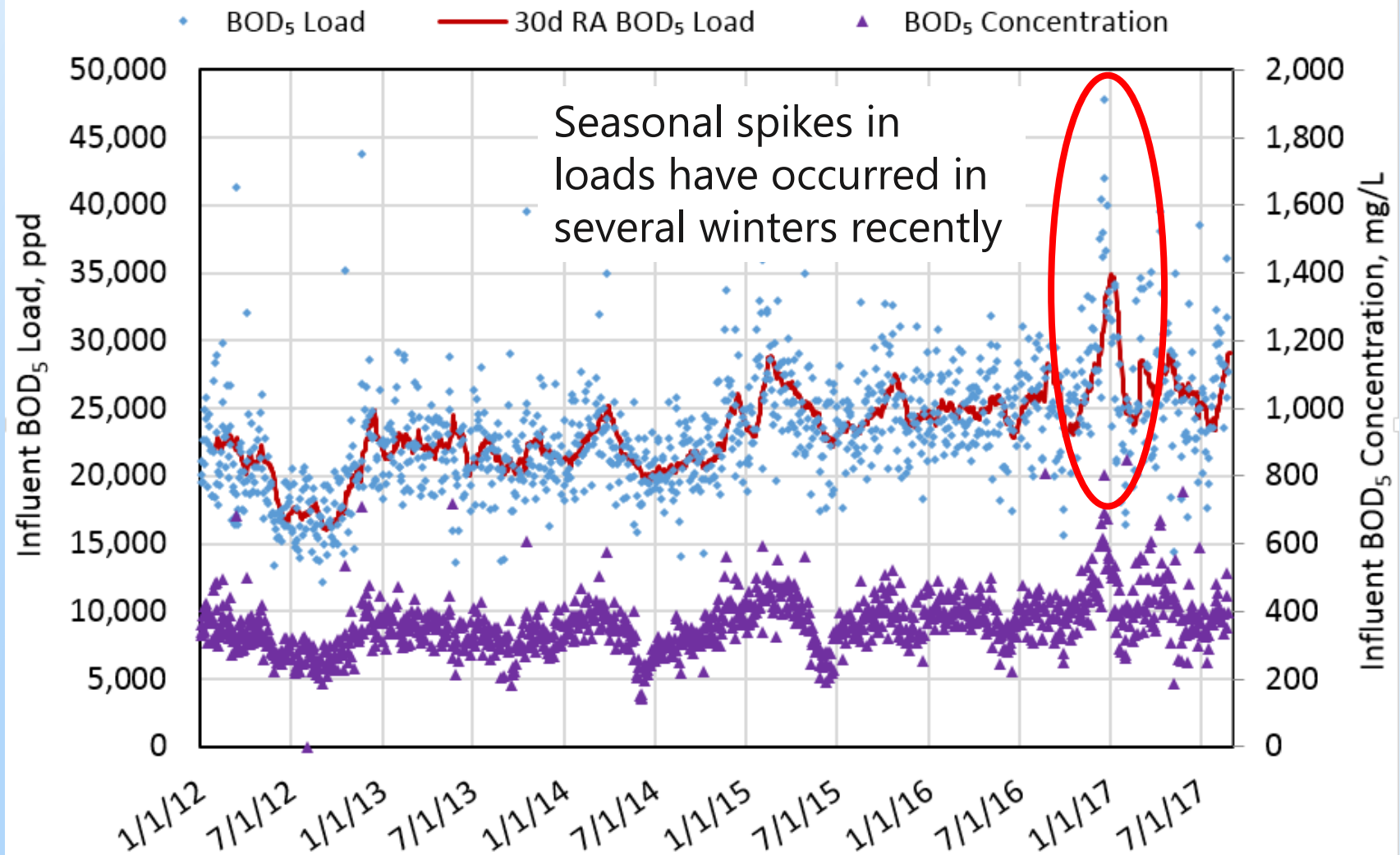
Current Per Capita Loading Rates Compared to Other Industrial Cities

Per Capita Loading Rates	Greeley WPCF (ADMMF)	Modesto, CA	Turlock, CA	WEF MOP 8
BOD5, ppd per capita	0.31	0.36	0.62	0.11 - 0.20
TSS, ppd per capita	0.26	NA	NA	0.13 - 0.33
Ammonia, ppd per capita	0.024	0.029	0.023	0.011 - 0.026
Total Phosphorus, ppd per capita	0.007	0.012	NA	0.003 - 0.010

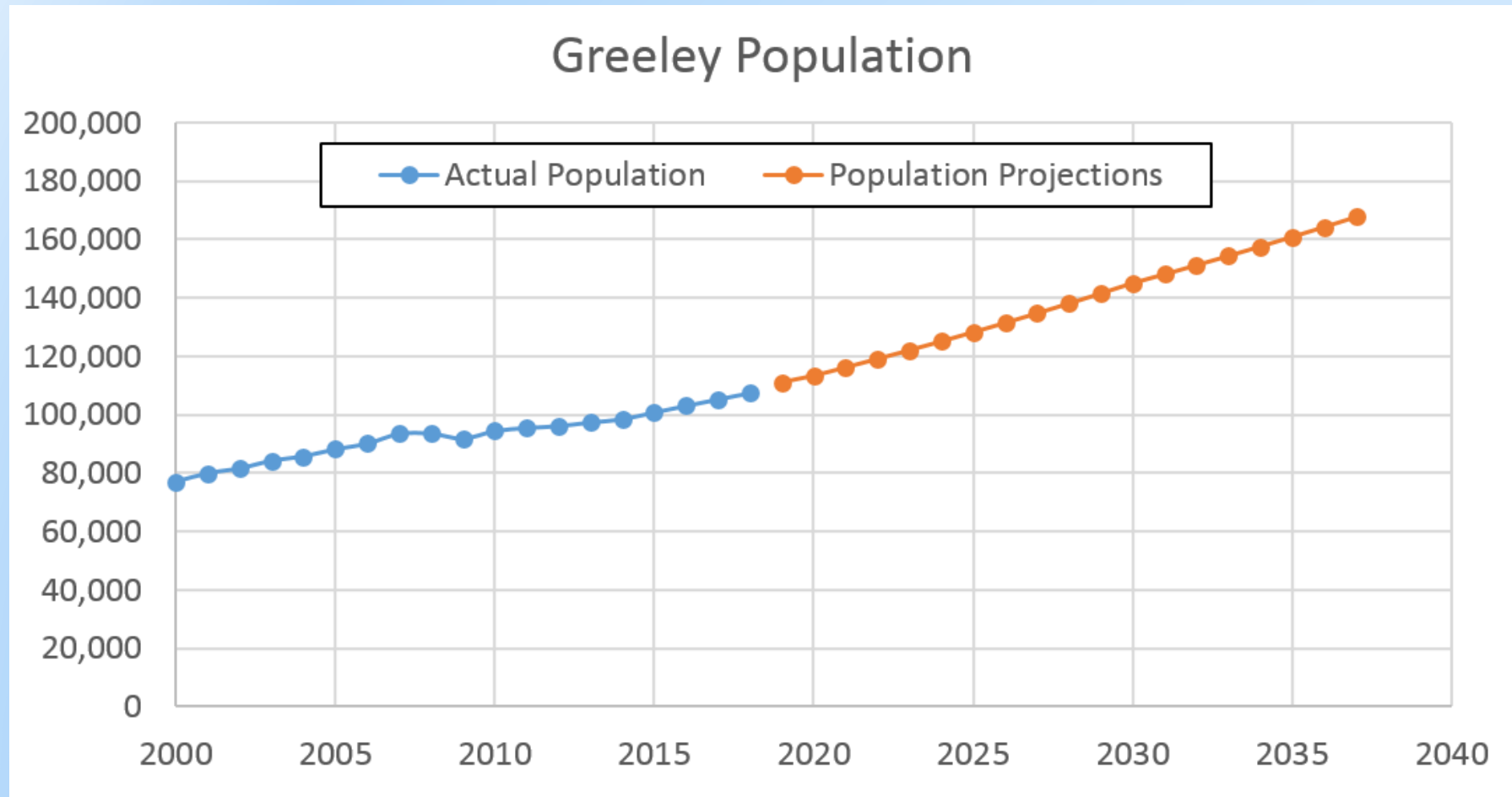
Since 2012, *Average* Organic Load Growing Disproportionately to Flow and Population



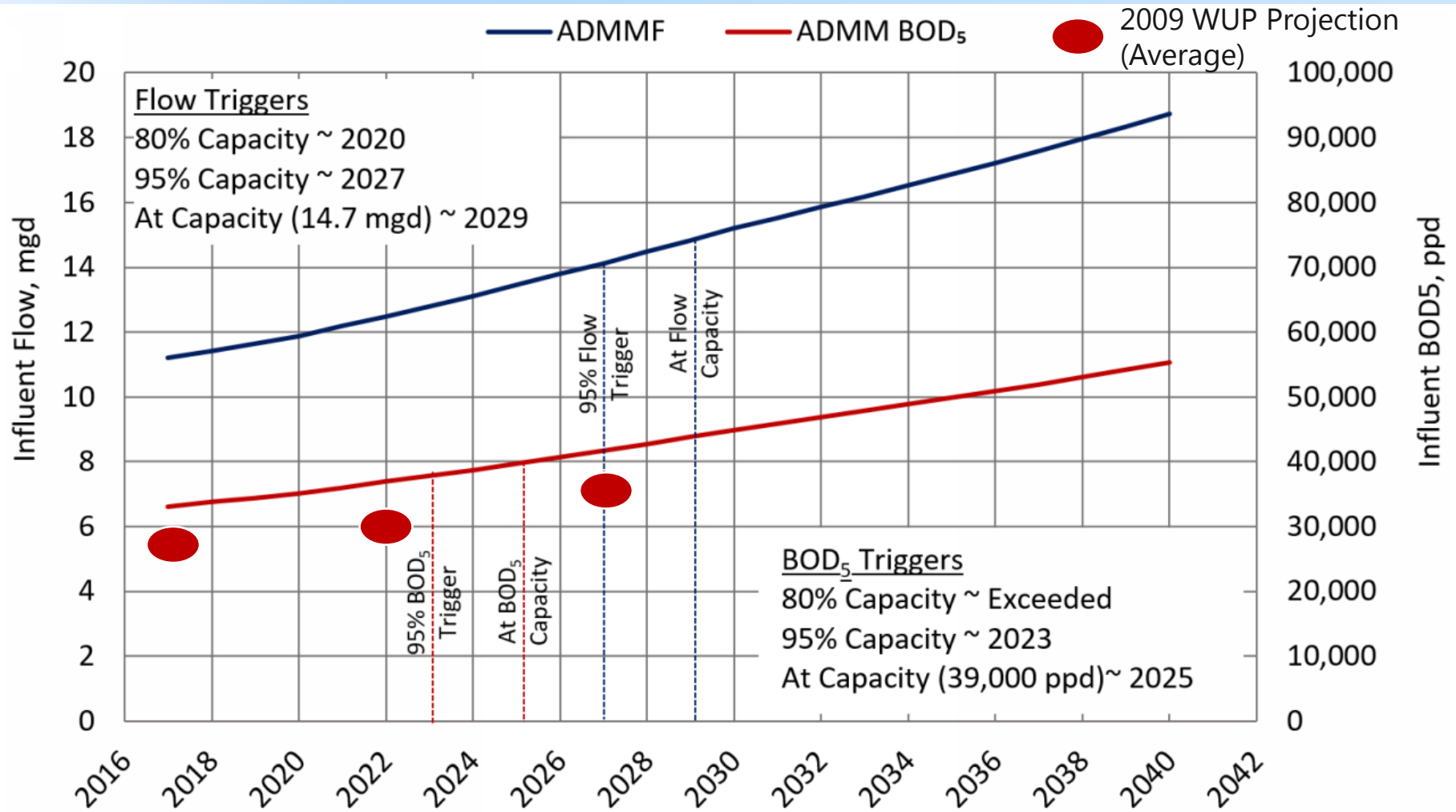
Treatment Capacity and Loading Defined by *Maximum Month* Conditions



City of Greeley Population Projections (BBC Research, Jan 2018)



Projected Flows and Loads



Condition Assessment Scoring System

Condition Score	Description
1	Very good. Sound physical condition. Asset likely to perform adequately without major work for 25 years or more for structures and for 10 years or more for electrical and mechanical assets.
2	Good. Acceptable physical condition. Minimal short-term failure risk, but potential for deterioration in medium- to long-term (10-years plus for structures and 5-10 years for electrical and mechanical assets). Only minor work required, if any.
3	Fair. Significant deterioration evident for structures and deterioration beginning to be reflected in performance and higher attendance in mechanical and electrical assets. Failure unlikely within 2 years, but further deterioration likely and major replacement likely within the next 10 years for structures and within 5 to 10 years for mechanical and electrical assets. Minor components or isolated sections of the asset need replacement now, but asset still functions safely at expected level of service. Work required but asset is still serviceable.
4	Poor. Failure likely in short-term. Likely need to replace most, or all, of the asset within 2 years. No immediate risk to health or safety, but work required within 2 years to ensure asset remains safe. Substantial work required in the short term, asset barely serviceable.
5	Very Poor. Failed or near failure. Immediate need to replace most or all of asset. Component effective life exceeded and excessive maintenance costs incurred. A high risk of break down with a serious impact on performance. Health and safety hazards exist which present a possible risk to public safety, or asset cannot be serviced without risk to personnel. Major work or replacement required urgently.

Source: International Infrastructure Management Manual, 2006 ed.

Condition Assessment Summary (Page 1)

Process Area	Project Recommendations	Overall Condition / Criticality
General Site	• Provide protective equipment at power service entrance poles and disconnect • Perform partial discharge testing of the medium-voltage cable insulation • Map 15-kV underground distribution system • Transition to above-grade distribution for power, signal, and control wiring • Exercise all switches, circuit breakers, and starters annually	4 / High
Headworks Influent Pump Station	• Refurbish or replace pump motors and pull new conductors • Replace control instruments and provide redundancy • Replace influent slide gates	4 / Extreme
Headworks Screening Facility	• Remove and replace shorted wiring • Replace electrical equipment that is not rated for the area hazard classification (per NFPA 820)	4 / High
Headworks Grit Facility	• Remove and replace shorted wiring • Replace electrical equipment that is not rated for the area hazard classification (per NFPA 820) No near-term project recommended	4 / High
Primary Flow Split	• No near-term project recommended	3 / High

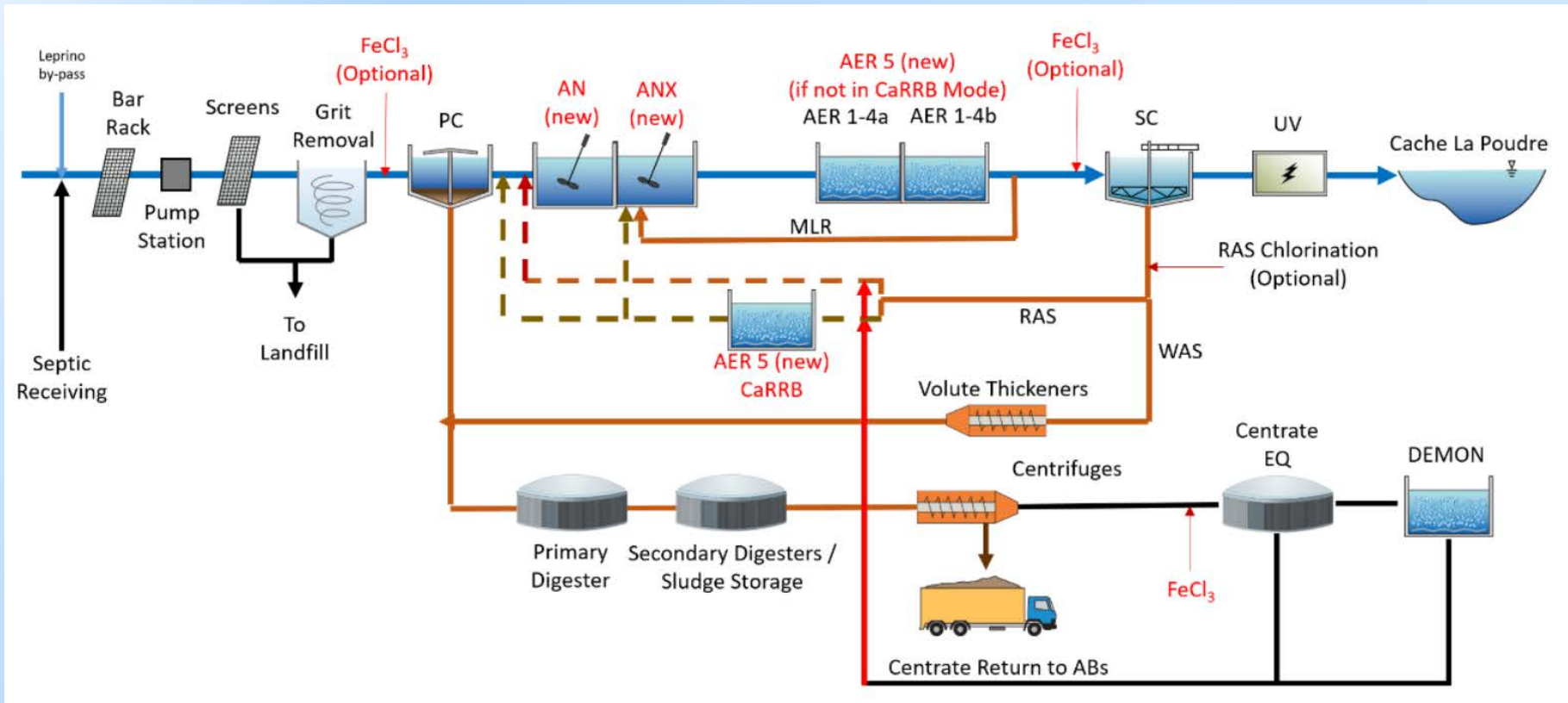
Condition Assessment Summary (Page 2)

Process Area	Project Recommendations	Overall Condition / Criticality
Primary Clarifiers	- Refurbish or replace clarifier mechanisms - Minor repair of distressed clarifier structure concrete	4 / High
Primary Sludge Pump Station	- Rehabilitate or replace the sludge valve vault and buried piping - Replace pumps and grinders - Reconfigure pump station for better maintenance access - Remove abandoned power factor capacitors at MCCs	4 / High
Blower Building	- Refurbish or replace the main switchboard - Replace generator fuel components to ensure NFPA 110 compliance - Add load bank to generator	4 / High
Aeration Basins	- Refurbish or replace Aeration Basin 1 gates - Refurbish aeration air pipe supports - Replace DO instrumentation	4 / High
Secondary Clarifiers	- Rebuild MCC-A starters and circuit breakers - Remove MCC-A abandoned power factor capacitors	4 / High
RAS Pump Station	- Refurbish or replace RAS pumps - Refurbish or replace piping and valves - Improve instrumentation - Reconfigure pump station for better maintenance access	5 / Extreme

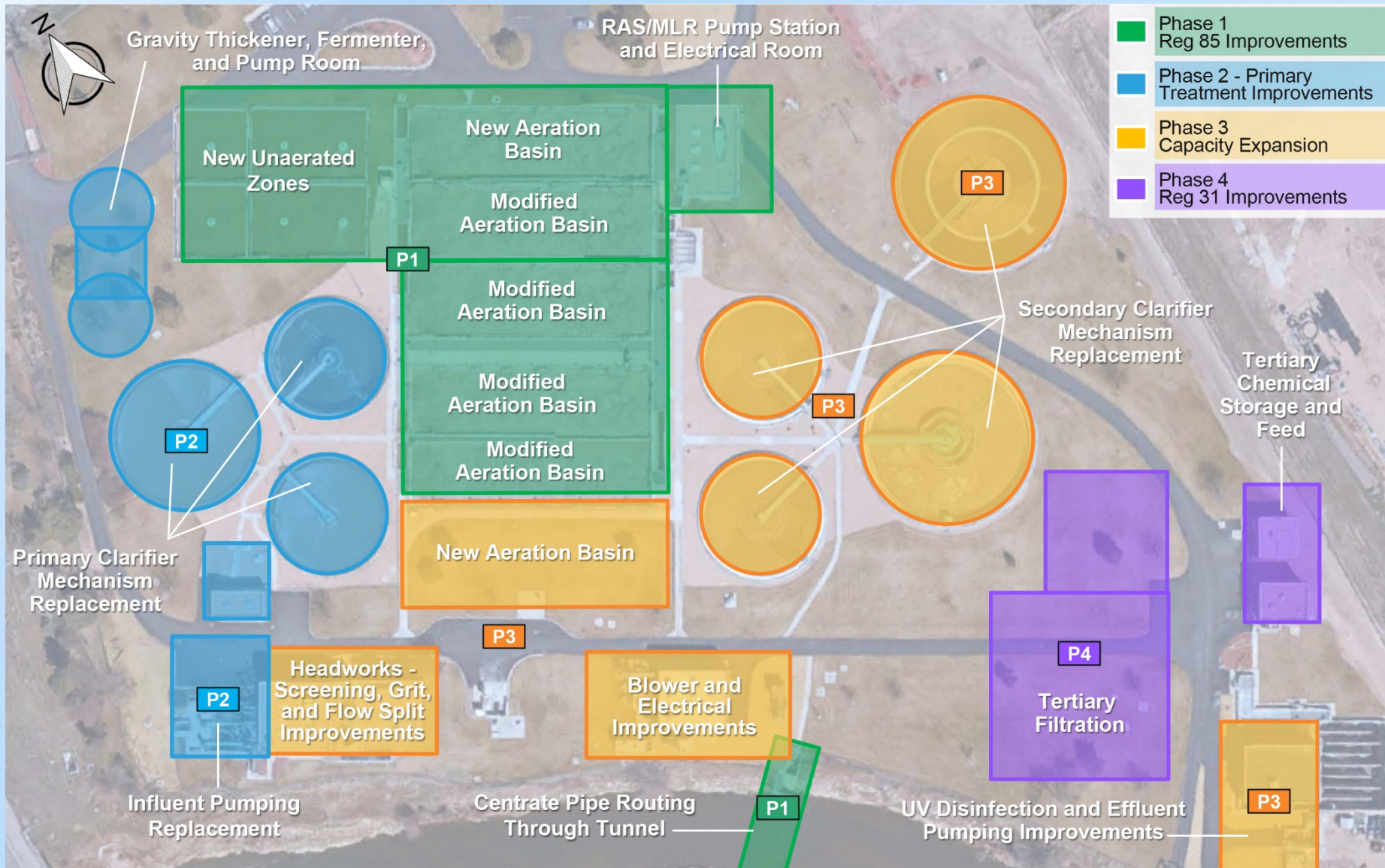
Condition Assessment Summary (Page 1)

Process Area	Project Recommendations	Overall Condition / Criticality
UV Disinfection Facility	- Refurbish or replace outdoor gates - Evaluate corrosion on UV Influent Gates - Install UPS or power conditioner to prevent interruptions due to power fluctuations	4 / Extreme
Effluent Discharge	No near-term project recommended	3 / High
Tunnel	- Refurbish or replace pipe supports - Replace pipe and insulation less than 4 inches diameter - Recoat process piping - Demolish non-functional piping and electrical equipment	4 / Extreme
Digester Building	- Replace Digester MCC - Refurbish heat trace at gas booster blowers - Replace SWB4	5 / High
Primary Digester #3	- Remove PSWG5 and replace with PSWG6 - Install new 15 kV feeder board and modify manhole, remove existing 15 kV distribution line	4 / High
Secondary Digesters	Replace SSD Tank	5 / High

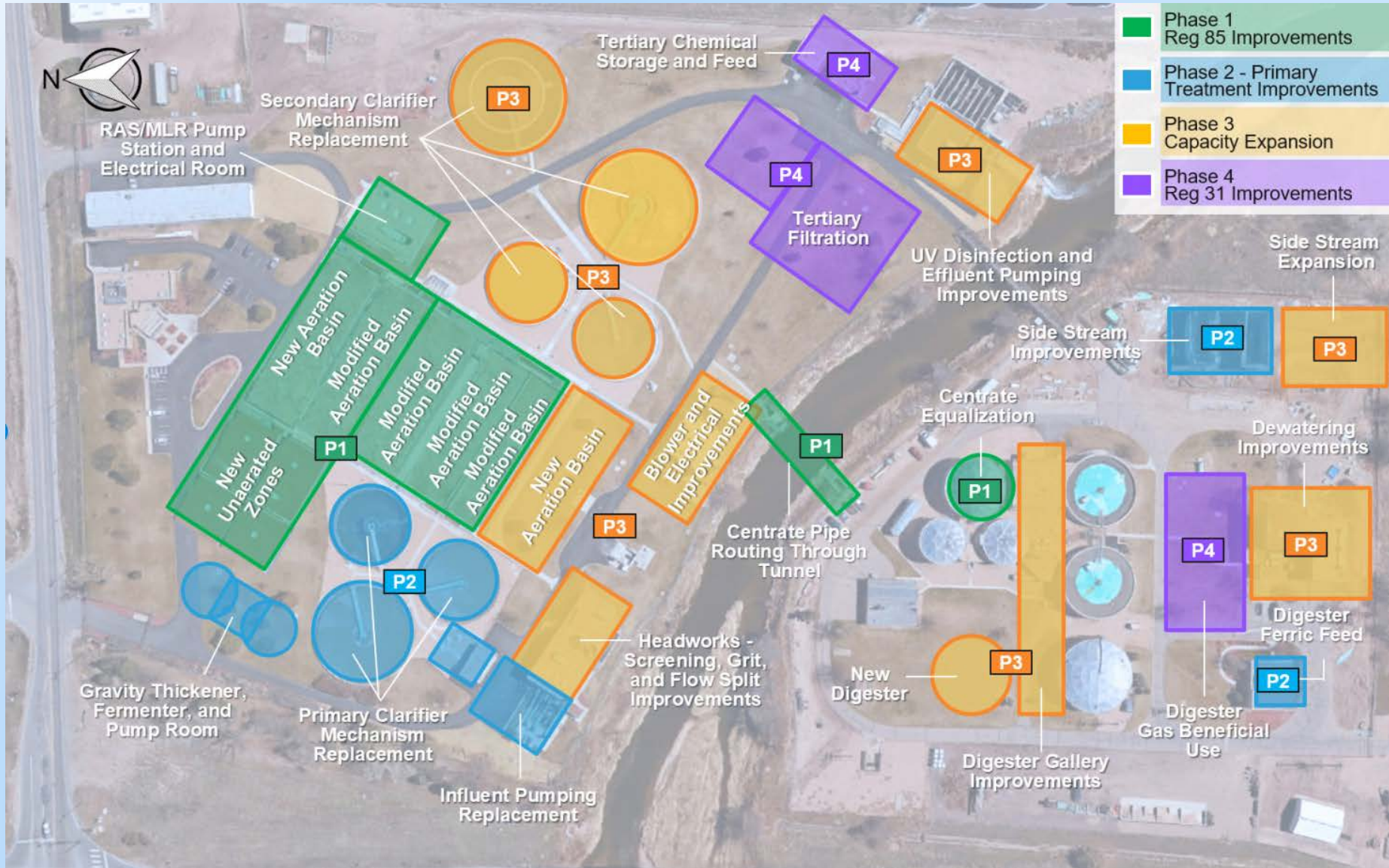
Proposed Reg 85 Process Schematic



North Plant – Project Location and Phasing



Entire WPCF Site – Project Location and Phasing



Project Cost – Including Escalation

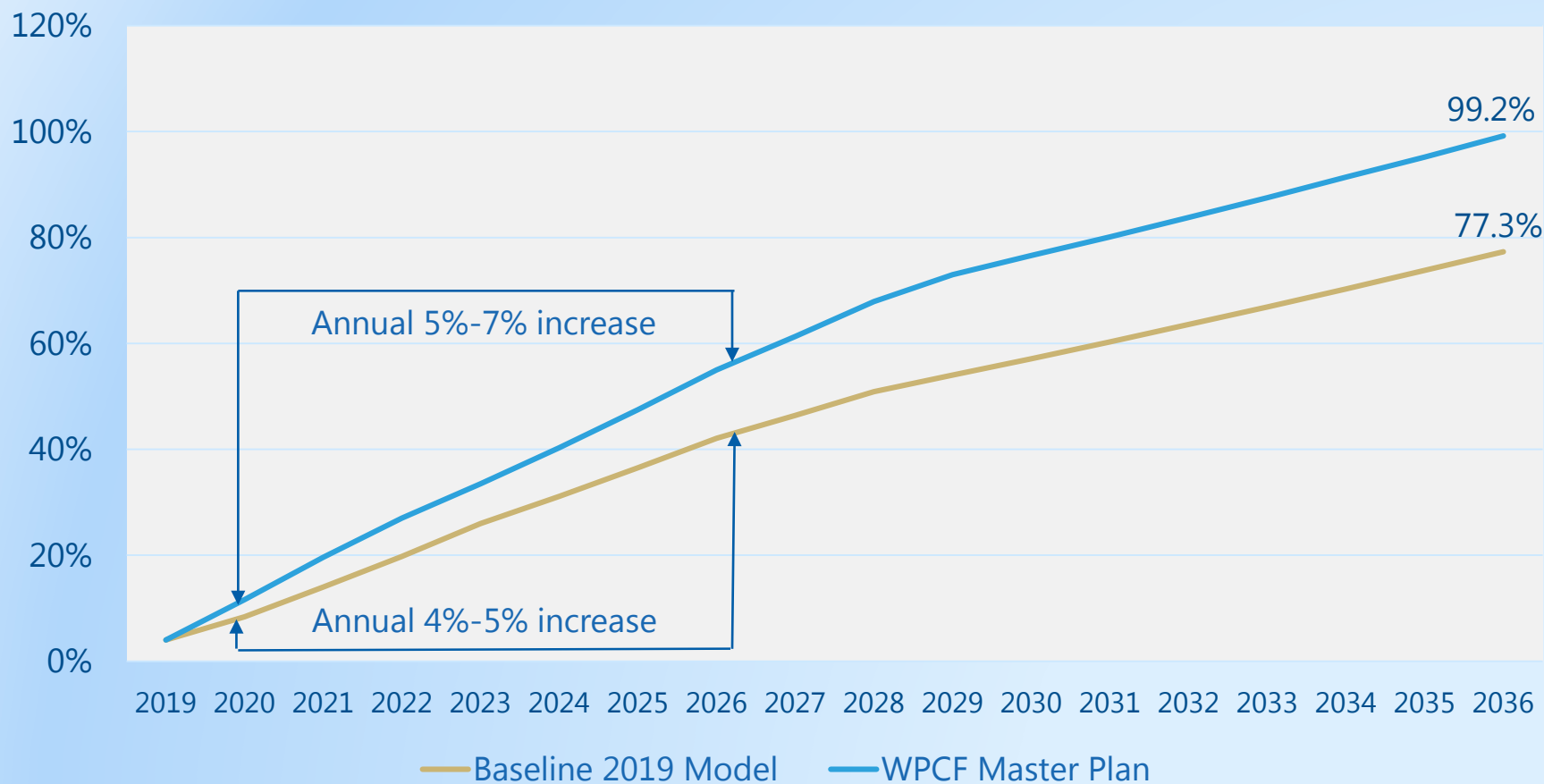
Project Phase	Design Cost	Construction Cost	Construction Services Cost	Total Estimated Project Cost
Phase 1 - Regulation 85	\$3,482,000	\$21,883,000	\$2,188,000	\$27,553,000
Phase 2 - Primary	\$2,508,000	\$15,389,000	\$1,539,000	\$19,436,000
Master Plan Update				\$500,000
Phase 3 - Capacity	\$12,064,000	\$77,094,000	\$7,709,000	\$96,867,000
Master Plan Update				\$500,000
Phase 4 - Regulation 31	\$6,338,000	\$40,256,000	\$4,026,000	\$50,620,000
Total CIP Cost with Escalation				\$195,476,000

Project Cost – Excluding Escalation

Project Phase	Design Cost	Construction Cost	Construction Services Cost	Total Estimated Project Cost
Phase 1 - Regulation 85	\$3,332,000	\$20,877,000	\$2,088,000	\$26,297,000
Phase 2 - Primary	\$2,285,000	\$13,901,000	\$1,390,000	\$17,576,000
Master Plan Update				\$500,000
Phase 3 - Capacity	\$9,335,000	\$58,899,000	\$5,890,000	\$74,124,000
Master Plan Update				\$500,000
Phase 4 - Regulation 31	\$4,205,000	\$26,034,000	\$2,603,000	\$32,842,000
Total CIP Cost in 2018 Dollars without Escalation				\$151,839,000

Project Cost – Estimated Rate Impacts

Cumulative Rate Increase



Estimated Monthly Sewer Bill Impact

Estimated Residential Sewer Bill	2019	2036
Baseline	\$20.14	\$35.71
Master Plan	\$20.14	\$40.12

Proposed Implementation Schedule

LEGEND: Project Development Phases			
Study	Design	Construction	Commissioning

Identified Project Phases	18	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Phase 1 Reg 85 Improvements																			
Phase 2 Primary Treatment Improvements																			
Liquids and Solids Master Plan Update																			
Phase 3 Capacity Expansion																			
Liquids and Solids Master Plan Update																			
Phase 4 Reg 31 Improvements																			

WPCF Next Steps

- More effective pre-treatment sampling
 - Sampling frequency / intervals
- Municipal Code Changes
 - Max. Allowable Penalties and Fees for Industrial Discharge Permit Violations
- Modification of PIF and fee model to consider loading
 - Nutrient (N &P) and BOD5
- Rigorous Pre-Treatment Enforcement
- Early Adoption of Reg. 85 Compliance to meet CDPHE program for Reg 31 Implementation Delay

MASTER PLAN FOCUS

1. Operational Reliability
2. Infrastructure Robustness
3. Facility Preparedness and Adaptability for the Future



Water Pollution Control Facility Treatment and Nutrient Master Plan Summary

February 20, 2019



WATER & SEWER BOARD AGENDA FEBRUARY 20, 2019

ENCLOSURE X NO ENCLOSURE

ITEM NUMBER: 8

TITLE: ACTION: APPROVE AUGMENTATION LEASE
AGREEMENT (HOLCIM (US), INC.)

RECOMMENDATION: APPROVE AUGMENTATION LEASE

ADDITIONAL INFORMATION:

Water Resources staff recommends approval of the enclosed augmentation lease with Holcim (US), Inc. The lease is for an initial term of 10 years, and will automatically renew for two additional 5-year terms unless terminated prior. Holcim anticipates the augmentation depletions to be 5 acre-feet per year, but the lease is for a maximum of 10 acre-feet in case Holcim incurs additional replacement obligations in its substitute water supply plan and/or augmentation plan. Releases will be made out of Milton-Seaman Reservoir.

AUGMENTATION WATER LEASE AGREEMENT
(Holcim (US), Inc.)

This AUGMENTATION WATER LEASE AGREEMENT ("Agreement") is entered into this ____ day of _____ 2019, by and between HOLCIM (US), INC., a Delaware corporation operating in the State of Colorado, whose address is 8700 W. Bryn Mawr Ave., Suite 300N, Chicago, IL 60631 ("Holcim") and the CITY OF GREELEY, a Colorado home rule municipal corporation acting by and through its Water and Sewer Board, whose address is 1001 11th Avenue, Second Floor, Greeley, Colorado 80631 ("Greeley") (collectively the "Parties").

Recitals

WHEREAS, Holcim owns and operates a series of ponds located in the SW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 5, the NW $\frac{1}{4}$ of Section 8, the NW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 8, the SE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 8, and the E $\frac{1}{2}$ of the NW $\frac{1}{4}$ of Section 17, all in Township 8 North, Range 69 West of the 6th P.M. in Larimer County, Colorado ("Holcim Ponds"); and

WHEREAS, Holcim desires to replace out-of-priority depletions to the Cache la Poudre River caused by the Holcim Ponds; and

WHEREAS, Holcim accordingly plans to seek approval of an augmentation plan from the Division 1 Water Court to set forth the terms by which Holcim will replace such depletions to the Cache la Poudre River; and

WHEREAS, Holcim desires to secure a reliable source of augmentation water to utilize as a replacement source in its augmentation plan, and Greeley is willing to lease to Holcim water that may be lawfully used for this purpose;

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Holcim and Greeley agree as follows.

Agreement

1. Lease of Augmentation Water. Greeley hereby agrees to lease Holcim up to 10 acre-feet of water per year during the term of this Agreement. The water made available by Greeley pursuant to this Agreement shall be decreed or otherwise usable for augmentation purposes under Colorado law ("Augmentation Water").

2. Term of Lease. The term of this Agreement begins on the date of mutual execution by the Parties and ends on December 31, 2028. Thereafter, this Agreement will automatically renew for up to two additional subsequent terms of five years each. Notwithstanding the foregoing, this Agreement may be terminated at any time by Holcim or Greeley pursuant to either Paragraph 6 or Paragraph 9 below.

3. Water Delivery Schedule and Administration. The Augmentation Water to be made available by Greeley pursuant to this Agreement shall be released in accordance with the following annual schedule ("Delivery Schedule").



	March	April	May	Total
Amount (acre-feet)	1.0	2.5	1.5	5.0
Rate (c.f.s.)	0.016	0.042	0.024	

Holcim may update the Delivery Schedule at any time during the term of this Agreement by submitting an advance written notice to Greeley of sixty days. Notwithstanding the total maximum amount of 100 acre-feet available to Holcim under this Agreement through December 31, 2028, Greeley shall not be obligated to deliver more than 2.5 acre-feet of Augmentation Water in any month, or more than 10 acre-feet of Augmentation Water in any year. The foregoing delivery limits shall remain in effect if the Parties renew this Agreement in accordance with Paragraph 2 above.

4. Lease Payment. Holcim shall pay to Greeley \$1,200.00 per acre-foot of Augmentation Water leased pursuant to this Agreement ("Lease Payment"). Holcim shall pay to Greeley an initial Lease Payment for the 5 acre-feet of Augmentation Water set forth in the Delivery Schedule above and anticipated as necessary in 2019, in the amount of \$6,000.00, within five days after mutual execution of this Agreement by the Parties. Each year thereafter during the term of this Agreement, Greeley shall adjust the Lease Payment in accordance with the increase in the Consumer Price Index ("CPI") for the Denver/Boulder/Greeley region, using 2019 as a baseline. Holcim shall pay to Greeley that annually adjusted Lease Payment based on the then current Delivery Schedule for that year, but in no event shall the Lease Payment for Augmentation Water under this Agreement be less than \$1,200.00 per acre-foot. Greeley shall invoice Holcim in advance of each augmentation year, and Holcim shall remit payment to Greeley no later than March 1, or within fifteen days after receiving such invoice. Failure to timely pay the Lease Payment may result in the suspension of Augmentation Water deliveries and termination of this Agreement, as described more particularly in Paragraph 9 below. In any year during which Greeley curtails deliveries of Augmentation Water pursuant to Paragraphs 6(a) or 6(b) below, Greeley shall either (i) provide Holcim with a refund for any amounts of Augmentation Water requested and paid for but not delivered, or (ii) apply such amount as credits toward Holcim's future payments for Augmentation Water.

5. Delivery of Augmentation Water. Greeley shall make the Augmentation Water available to Holcim, according to the then current Delivery Schedule, by releasing such water from its available supplies in storage at Milton Seaman Reservoir. Greeley may, in its sole discretion, use any of its supplies in storage at Milton Seaman Reservoir that are available and decreed for augmentation use to meet its obligations under this Agreement. Holcim shall be solely responsible for all accounting and administration of the Augmentation Water after its release from Milton Seaman Reservoir, including for the accounting of any transit losses charged to Holcim by the Colorado Division of Water Resources. Greeley's obligation to make the Augmentation Water available to Holcim under this Lease shall commence on March 1, 2019, or the date on which Greeley receives the initial payment described in Paragraph 4 above, whichever date occurs later.

6. Limitations on Obligation to Deliver Augmentation Water. Greeley's obligation to make the Augmentation Water available to Holcim under this Agreement may be curtailed

under the following circumstances:

a. Greeley may curtail deliveries of Augmentation Water to Holcim if it imposes, in Greeley's sole discretion, mandatory city-wide water use restrictions to address drought conditions, dam or pipeline failure, or other catastrophic circumstance limiting Greeley's ability to satisfy the indoor water usage needs of its citizens, so long as, and to the extent that, deliveries under this Agreement are prevented or delayed by such cause.

b. Greeley may curtail deliveries of Augmentation Water to Holcim if an accident, act of war, natural catastrophe, fire, explosion, or other cause beyond the reasonable control of Greeley prevents or delays its ability to deliver Augmentation Water, so long as, and to the extent that, deliveries under this Agreement are prevented or delayed by such cause.

c. If at any time during the term of this Agreement Holcim no longer needs Augmentation Water to replace out-of-priority depletions associated with the Holcim Ponds, Greeley's obligation to make Augmentation Water available under this Agreement shall terminate and be of no further force and effect, subject to the notice provisions in this paragraph. If Greeley reasonably believes that the Holcim Ponds are no longer causing depletions to the Cache la Poudre River, Greeley shall notify Holcim of such belief in writing sixty days prior to its proposed termination of this Agreement. Holcim shall be entitled during this sixty-day period to demonstrate in writing that it still needs Augmentation Water to replace depletions from the Holcim Ponds, which shall preclude termination of the Augmentation Water delivery obligation.

d. If Holcim determines that it no longer needs Augmentation Water to replace out-of-priority depletions associated with the Holcim Ponds, Holcim may terminate the Agreement by submitting an advance written notice to Greeley of ninety days.

7. Use of the Augmentation Water. Holcim shall use the Augmentation Water made available pursuant to this Agreement only to replace the out-of-priority depletions associated with the Holcim Ponds, whether in an augmentation plan approved by the Division 1 Water Court or in an associated substitute water supply plan approved by the Colorado Division of Water Resources. Greeley may object to or oppose the inclusion and use of the Augmentation Water by Holcim in any proceeding to approve such a substitute water supply plan or augmentation plan to ensure that the proposed use of the Augmentation Water by Holcim is consistent with this Agreement. Greeley may also participate in such proceedings to protect Greeley's interest in its water rights, so long as Greeley's participation is not inconsistent with, or does not frustrate the purpose of, this Agreement.

8. Notices. Any notices required hereunder shall be deemed sufficient when (i) hand-delivered or (ii) sent certified mail, return receipt requested to the Parties by the contact information set forth below. The Parties shall notify each other in the event that the appropriate contact information changes.

If to Holcim: Holcim (US), Inc. Portland Plant
3500 State Hwy 120
Florence, Colorado 81226

With copy to: Brown and Caldwell
Attn: Matt Lindburg, P.E.
1527 Cole Boulevard, Suite 300
Lakewood, Colorado 80401
mlindburg@brwnncald.com

If to Greeley: Greeley Water and Sewer Department
Attn: Jennifer Petrzela, Water Resource Operations Manager
1001 11th Avenue, Second Floor
Greeley, Colorado 80631
jennifer.petrzelka@greeleygov.com

With copy to: Greeley City Attorney's Office
Attn: Environmental and Water Resources Practice Group
1100 10th Street, Suite 401
Greeley, Colorado 80631
daniel.biwer@greeleygov.com

9. Default and Termination. If either of the Parties fails to comply with a term or condition herein, such failure constitutes a default of this Agreement. The non-defaulting party may declare the default by providing written notice to the defaulting party in accordance with Paragraph 8 above. Upon receipt of this notice of default, the defaulting party will have fifteen days within which to cure the default. If, in the sole discretion of the non-defaulting party, the default remains uncured after the aforementioned fifteen-day cure period, or after any written extension thereof mutually agreed upon by the Parties, the non-defaulting party may declare the Agreement terminated by written notice in accordance with Paragraph 8 above.

a. Notwithstanding the above, any failure by Holcim to comply with the terms of Paragraph 7 or 15 in this Agreement constitutes a material breach. In the event that Holcim commits a material breach, Greeley may immediately terminate this Agreement by written notice to Holcim.

b. The failure of either party to declare a default or material breach does not establish a precedent or constitute an implied waiver of any subsequent breach of the terms and conditions in this Agreement.

10. Attorneys' Fees and Costs. In addition to any remedies otherwise available, a party that prevails in a legal action commenced against the other due to a default or material breach of this Agreement may recover from the defaulting party reasonable costs and attorneys' fees incurred during the course of such legal action.

11. Governing Law and Venue. This Agreement shall be governed by and enforced in accordance with the laws of the State of Colorado. Venue for any action regarding this Agreement shall be in the District Court for Weld County, Colorado or the Division 1 Water Court, as appropriate.

12. Recording. Holcim shall not record this Agreement in the real property records of any jurisdiction, but may disclose or otherwise utilize this Agreement in any proceeding to obtain approval of a plan for augmentation from the Division 1 Water Court or a substitute water supply plan from the Colorado Division of Water Resources.

13. Counterparts. This Agreement may be executed in counterparts, each of which when executed by the Parties may be deemed an original. The combination of such identical counterparts when executed by the Parties shall constitute one agreement.

14. No Vested Interest in Augmentation Water. This Agreement is made expressly subject to Section 17-4 of the Charter of the City of Greeley. Greeley grants no interest in the Augmentation Water to Holcim other than as explicitly set forth in this Agreement. Holcim shall make no claim to any rights, title, or interest in the Augmentation Water other than as expressly set forth in this Agreement. In no event shall Greeley be required to provide Augmentation Water in amounts greater or for a period longer, than expressly described herein.

15. Restriction on Sublease and Assignment. Holcim shall not rent, sublet, or otherwise convey the right to use the Augmentation Water. Holcim shall not assign this Agreement, except to a successive owner or operator of the Holcim Ponds for augmentation of the Holcim Ponds, and only with prior written consent from Greeley. Holcim shall request consent from Greeley prior to any purported assignment of this Agreement by advance written notice of at least thirty days. Such consent may be given or withheld in the sole discretion of Greeley.

16. Indemnification. Holcim agrees to exercise its rights under this Agreement at its own risk. Holcim shall indemnify and hold Greeley harmless from and against any cost, expense, or liability arising out of this Agreement or related activities. Nothing in this Agreement is intended constitute a waiver, express or implied, of any of the immunities, rights, benefits, protections or other provisions, of the Colorado Governmental Immunity Act, C.R.S. §§24-10-101 et seq., as it may be applicable now or hereafter amended.

IN WITNESS WHEREOF, Holcim and the City of Greeley have executed this Agreement on the dates set forth below.

HOLCIM (US), INC.

By: 
Title: _____

Sr. Vice President, Manufacturing

Date: 2/13/19

CITY OF GREELEY

a Colorado home rule municipal corporation
acting by and through its Water and Sewer Board

By: _____
Mayor

Date: _____

ATTEST:

By: _____
City Clerk



Holcim Augmentation Lease Agreement

February 20, 2019



Lease Terms

- 5 AF per year
- 10 years, 2 additional 5 year terms
- Meet with releases out Milton-Seaman Reservoir
- Initial payment of \$6,000 + \$1,200/AF
- Adjusted by CPI annually

WATER & SEWER BOARD AGENDA FEBRUARY 20, 2019

ENCLOSURE _____

NO ENCLOSURE X

ITEM NUMBER: 9

TITLE: EXECUTIVE SESSION

RECOMMENDATION: INFORMATION ONLY

ADDITIONAL INFORMATION:

WATER & SEWER BOARD AGENDA FEBRUARY 20, 2019

ENCLOSURE X NO ENCLOSURE

ITEM NUMBER: 10

TITLE: ACTION: APPROVE FARM LEASE
AGREEMENT (IVAN OGAN AND SONS, INC.)

RECOMMENDATION: APPROVE FARM LEASE AGREEMENT

ADDITIONAL INFORMATION:

Water Resources staff recommends approval of the enclosed farm and irrigation water lease agreement with Ivan Ogan and Sons, Inc. for the lease of a 152-acre farm that the City is under contract to acquire from Dann R. Brown, et al. The lease is for an initial term of 10 years, with a mutual option to renew for an additional term of 5 years, and includes the 2 shares of Water Supply and Storage Company historically irrigated with the property, as well as the lateral rights necessary to deliver the WSSC water to the farm.

FARM LEASE AGREEMENT

This FARM LEASE AGREEMENT ("Agreement") is entered this ____ day of _____, 2019, by and between the CITY OF GREELEY, a Colorado home rule municipal corporation acting by and through its Water and Sewer Board, whose address is 1001 11th Avenue, Second Floor, Greeley, Colorado 80631 ("Greeley"), and IVAN OGAN AND SONS, INC., whose address is 37546 County Road 31, Eaton, Colorado 80615 ("Lessee") (collectively the "Parties").

RECITALS

WHEREAS, Greeley owns a parcel of agricultural property consisting of approximately one hundred and fifty-two (152) acres, which parcel is legally described as:

the Northeast Quarter (NE¼) of Section Twenty-eight (28), Township Seven (7) North, Range Sixty-six (66) West of the 6th P.M., County of Weld, State of Colorado, EXCEPT a parcel conveyed by Deed recorded in Book 181 at Page 319, Weld County Records;

together with the Improvements, which are defined more particularly below, located thereon (collectively the "Real Estate"); and

WHEREAS, Greeley also owns 2 shares of capital stock in the Water Supply & Storage Company (represented by Stock Certificate No. ____) and 2 shares in the Lakeside Lateral Ditch Company (represented by Stock Certificate No. ____), which have historically been used to irrigate the Real Estate (collectively the "Water Rights"); and

WHEREAS, Greeley and the Lessee have reached an understanding regarding the terms and conditions by which Greeley will lease the Real Estate and Water Rights (collectively the "Property") to the Lessee for agricultural and residential purposes; and,

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Greeley and the Lessee agree as follows.

AGREEMENT

1. **FARM LEASE.** Greeley leases the above-described Property to the Lessee, for agricultural and residential purposes, subject to the terms and conditions of this Agreement.

2. **TERM OF LEASE.** The initial term of this Agreement commences on the date it is mutually executed by the Parties and ends on December 31, 2028 ("Lease Term"). The Agreement expires at the end of this initial Lease Term, but may be renewed for one subsequent term of five years upon execution of a written mutual agreement of renewal by the Parties.

3. **ANNUAL LEASE AMOUNT.** The Lessee shall pay to Greeley an Annual Lease Amount for its use and occupancy of the Property, in two equal installments due no later than March 31

and December 15 of each year during the term of this Agreement. The Annual Lease Amount for the first year of the Lease Term is one hundred and thirty dollars (\$130.00) per acre for approximately one hundred and fifty two (152) acres of irrigable cropland, for a total of nineteen thousand seven hundred and sixty dollars (\$19,760.00). Accordingly, for the first year of the Lease Term, the first installment of nine thousand eight hundred and eighty dollars (\$9,880.00) is due no later than March 31, 2019 and the second installment of nine thousand eight hundred and eighty dollars (\$9,880.00) is due no later than December 15, 2019.

- a. The Annual Lease Amount shall be adjusted each year during the term of this Agreement in accordance with the increase in the Consumer Price Index ("CPI") for the Denver-Boulder-Greeley Region, using the CPI level on the date this Agreement is executed as a basis for comparison. Regardless of any future decrease in the CPI, the Annual Lease Amount shall never be less than \$130.00 per acre.

4. IMPROVEMENTS AND CONDITION OF PROPERTY. The Property to be leased from Greeley by the Lessee includes the residential dwelling and all other existing improvements, structures, and fixtures currently placed, constructed, installed or located on the Real Estate; all fences, gates, plants, trees, landscaping and other appurtenances, if any, upon, over or under the Real Estate; and all fixtures (including, but not limited to, storm windows, storm doors, window and porch shades, awnings, blinds, screens, window coverings and treatments, curtain rods, drapery rods, fireplace inserts, fireplace screens fireplace grates, heating stoves, storage sheds, carbon monoxide alarms, smoke/fire detectors, and all keys), appliances, equipment, if any, upon, over or under the Real Estate (collectively the "Improvements"). Prior to signing this Agreement, the Lessee represents that he has inspected or caused to be inspected the Property, including all Improvements, and acknowledges that the Property is being leased "as-is." No additional representations, statements or warranties, whether express or implied, have been made by or on behalf of Greeley as to the condition of the Property or of any Improvements located thereon and used in connection with the Property. The Lessee shall make no claim nor hold Greeley liable for any defect in the Property, the Improvements, or any limitation on the use of the Property, including the Improvements or any portion thereof, as a residence or irrigated cropland or pasture. Lessee also hereby acknowledges that the mineral estate previously associated with the Property has been severed, and that the surface of the Property may be subject to development of those mineral rights. In the event that surface development of the mineral estate renders a portion of the Property unavailable for irrigated agriculture, the Parties agree to amend the acreage used to calculate Annual Lease Amount accordingly.

5. WATER RIGHTS.

- a. Lessee may use the Water Rights for agricultural irrigation of the Real Estate at no additional charge beyond the Annual Lease Amount, subject to the terms and conditions of this Agreement.

- b. Lessee shall deliver to Greeley a completed Historical Use Affidavit and Questionnaire, in the form attached hereto as Exhibit A, on or before December 15 each year during the term of this Agreement. Lessee acknowledges that Greeley may file an application to change the use of

the Water Rights with the Division 1 Water Court for the State of Colorado during the term of this Agreement. Lessee shall cooperate with Greeley and its agents or representatives in the review and analysis of the historical use of the Water Rights. Upon request from Greeley, Lessee shall provide information regarding use of the Water Rights in preparation for and during any proceeding before the Division 1 Water Court.

c. Greeley shall be responsible for any ditch company assessments or other charges due and attributable to the Water Rights.

d. Lessee shall have no right to any rebates or other payments from Greeley for the lease of transmountain return flows associated with the Water Rights.

e. Lessee agrees to use the Water Rights, and the water delivered pursuant to this Agreement, only for agricultural irrigation of the Real Estate.

f. Lessee agrees to take and use the water delivered pursuant to the Water Rights to the fullest extent possible, and shall undertake no action which could be construed as abandonment of the Water Rights. Lessee shall provide advance written notice to Greeley, on or before March 1, if he no longer intends to irrigate the Real Estate, or any portion thereof, with the Water Rights for that irrigation season.

g. Lessee shall not rent, sublease, nor otherwise convey the right use the Water Rights to third parties, nor allow any third parties to use the Water Rights or water delivered pursuant to said Water Rights on lands other than the Real Estate or for any uses other than described in this Agreement.

h. Lessee shall comply with all of the rules, regulations, and policies of the ditch and reservoir companies that deliver the Water Rights.

i. Greeley makes no warranty, guarantee, nor representation of any kind regarding the amount or quality of water that will be yielded or delivered pursuant to the Water Rights.

j. Greeley shall not be liable for any failure of delivery of water pursuant to the Water Rights due to drought, other force of nature, or due to the failure of any ditch and/or reservoir company infrastructure.

6. AUTHORIZED USE OF THE PROPERTY.

a. Lessee shall occupy and use the Property solely for agricultural purposes. Lessee may sublease the residential dwelling on the Property to one or more persons in his employ for farming the Property, subject to the approval by Greeley of an agreement governing such sublease. The approval of any such sublease may be given or withheld by Greeley in its sole discretion.

b. Lessee shall care for the Property in a manner consistent with sound agricultural practices.

c. Lessee shall apply all weed control chemicals and fertilizers in compliance with applicable federal, state, and local regulations.

d. Lessee shall irrigate the Real Estate only with the Water Rights and the water delivered pursuant to this Lease Agreement.

e. Lessee shall furnish, at his sole expense, all labor, machinery, fertilizer, weed spray, and other items needed for farming the Property.

7. COVENANTS AND AGREEMENTS OF THE LESSEE.

a. Lessee shall maintain and make any necessary repairs, at his sole expense, to any lateral ditches, headgates, and other personal property necessary to deliver the Water Rights to the Real Estate and to the pivots, wells, siphons, and pumping lagoons used in connection with the Water Rights on the Real Estate.

b. Lessee shall keep the Property, including any non-irrigated land, clear of noxious weeds.

c. Lessee shall not assign this Agreement nor sublet the Property or any part thereof without the prior written consent of Greeley.

d. Lessee shall not construct, nor permit construction of any structure, building or other improvement, temporary or otherwise, on the Property without the prior written consent of Greeley, which consent shall be in the sole discretion of Greeley.

e. Lessee shall not erect, paint, nor maintain any signs on the Property without securing the prior written consent of Greeley, which consent shall be in the sole discretion of Greeley.

f. Lessee shall not allow any noise, odors, fumes, or vibrations on the Property that would cause disruption of normal activities on adjacent properties, other than those caused by normal agricultural practices.

g. Lessee shall not use nor permit to be used any insecticide, pesticide, rodenticide, herbicide, or other chemical substance on the Property for weed, pest, or rodent control or fertilization that is prohibited by any federal, state or local statute, ordinance, resolution, rule or regulation.

h. Lessee shall not directly nor indirectly create, incur, assume, or suffer to exist any mortgage, pledge, lien, charge, encumbrance, or claim on or with respect to the Property.

i. Lessee agrees, covenants, and warrants to maintain the Property throughout the term of this Agreement in the same repair and condition in which he received possession of the Property at the commencement of this Agreement.

k. Lessee agrees to deliver up and surrender to Greeley possession of the Property at the expiration or termination of this Agreement.

l. Lessee agrees to pay all utilities associated with the Real Estate, including but not limited to, gas, water, electricity, and trash services.

8. INDEMNIFICATION.

a. Lessee assumes the risk of loss or damage to any crops on the Property whether from windstorm, fire, earthquake, snow, water run-off, soil conditions, or any other causes whatsoever.

b. Lessee releases and agrees to indemnify, defend and hold harmless Greeley, its agents, officers, employees, and volunteers from and against all damages, claims, actions, causes of action, demands, judgments, costs, expenses of every kind and nature, predicated upon injury to or death of any person or loss of or damage to any property, arising, in any manner, from Lessee's operations or use of the Property under this Agreement.

c. Nothing in this Agreement is intended constitute a waiver, express or implied, of any of the immunities, rights, benefits, protections or other provisions, of the Colorado Governmental Immunity Act, C.R.S. §§24-10-101 et seq., as applicable now or hereafter amended.

9. HAZARDOUS WASTE.

a. Lessee shall not cause nor permit any "Hazardous Material" (defined below) to be brought upon, kept, or used in or about the Property by Lessee, his agents, employees, contractors, or invitees without the prior written consent of Greeley. Greeley shall not unreasonably withhold consent so long as Lessee demonstrates to Greeley's reasonable satisfaction that such Hazardous Material is necessary or useful to Lessee's use of the Property for agricultural purposes, so long as any chemicals (including without limitation fertilizer, herbicides, insecticides) are applied in conformance with good farming methods, applicable rules and regulations and the label directions of each chemical and kept, and stored in a manner that complies with all laws regulating such chemicals.

b. If Lessee breaches the obligations stated herein, or if the presence of Hazardous Material on the Property caused or permitted by Lessee results in contamination of the Property, or if contamination of the Property by Hazardous Material otherwise occurs for which Lessee may be legally liable to Greeley for damage resulting therefrom, then Lessee shall indemnify, defend, and hold Greeley harmless from any and all claims, judgments, damages, penalties, fines, costs, liabilities, or losses which arise during or after the lease term as a result of such contamination. This indemnification of Greeley by Lessee includes, without limitation, costs incurred in connection with any investigation of site conditions or any cleanup, remedial, removal, or restoration work required by any federal, state, or local

governmental agency or political subdivision because of Hazardous Material present in the soil or groundwater on or under the Property.

c. Without limiting the foregoing, if the presence of any Hazardous Material on the Property caused or permitted by Lessee results in any contamination of the Property, Lessee shall promptly take all actions, at his sole expense, as are necessary to return the Property to the condition existing prior to the introduction of any such Hazardous Material to the Property; provided that Greeley's approval of such actions shall first be obtained, which approval shall not be unreasonably withheld so long as such actions would not potentially have any material adverse effect on the Property.

d. As used herein, the term "Hazardous Material" means any hazardous or toxic substance, material, or waste which is or becomes regulated by any local governmental authority, the State of Colorado, or the United States Government. The term "Hazardous Material" includes, without limitation, any material or substance that is (i) defined as a "hazardous substance" under appropriate state law provisions; (ii) petroleum; (iii) asbestos; (iv) designated as a "hazardous substance" pursuant to Section 311 of the Federal Water Pollution Control Act, 33 U.S.C. § 1321; (v) defined as a "hazardous waste" pursuant to Section 1004 of the Federal Resource Conservation and Recovery Act, 42 U.S.C. § 6903; (vi) defined as a "hazardous substance" pursuant to Section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9601; or (vii) defined as a "regulated substance" pursuant to Subchapter IX, Solid Waste Disposal Act (Regulation of Underground Storage Tanks), 42 U.S.C. § 6991.

10. RESERVATIONS. Greeley expressly reserves the right under this Agreement to (i) have its officers, employees, and representatives enter upon and inspect or protect the Property at any time; (ii) use any portion of the Property for public utilities or as ingress and egress for public use and rights of way; (iii) use, repair, install, replace, or maintain public utilities and rights-of-way on, over, or under the Property; or (iv) use any portion of the Property as a site for the application of digested biosolids.

11. TERMINATION FOR CAUSE.

a. Lessee agrees to observe and perform all terms and conditions of this Agreement. If Lessee fails to make payment of the Annual Lease Amount, or any part thereof, or if Lessee fails to observe or perform any term or condition of this Agreement, then Greeley, upon written notice to Lessee, may in its sole discretion terminate this Agreement and re-enter and repossess the Property, with or without legal proceedings, using such force as may be necessary, and remove any property belonging to Lessee without prejudice to any claim for rent or for the breach of covenants hereof. Lessee agrees to indemnify and hold Greeley harmless from and against any costs for the removal and storage of Lessee's property incurred by Greeley under the provisions of this section.

b. If Greeley determines that Lessee has created a public safety hazard, then Greeley may immediately take action to secure the safe operation of the Property, including without limitation, terminating this Agreement and/or removing Lessee and any of Lessee's equipment or crops from the Property.

c. If Lessee, after the expiration or termination of this Agreement, remains in possession of the Property without a written agreement, the holding over shall be construed as a month-to-month tenancy at a monthly rental rate equivalent to one-twelfth of the Annual Lease Amount, payable in advance on the first day of each month, subject to the terms and conditions of this Agreement. No payments of money by Lessee after the expiration or termination of this Agreement shall constitute a renewal of this Agreement.

12. INSURANCE REQUIREMENTS.

a. Lessee shall purchase and maintain for the full period of this Agreement, including any additional extension periods, at Lessee's sole expense, insurance policies providing coverage as follows:

i. Farm liability insurance, including coverage for bodily injury, property damage, contractual liability, and broad-form property damage and owner/contractor's protective coverage, with a minimum coverage of not less than \$1,000,000.00 or as approved by the City of Greeley Risk Manager; and

ii. Workers' compensation and employers' liability insurance, if applicable, which shall cover the obligations of Lessee in accordance with the provisions of the Workers' Compensation Act of Colorado, as amended.

b. Before commencement of this Agreement, Lessee must present all applicable insurance policies, certificates of insurance, and endorsements, along with a signed copy of this Agreement, to the City of Greeley Risk Manager, and receive the Risk Manager's written approval as to the adequacy of such insurance coverage.

c. The insurance policies shall contain an endorsement naming the City of Greeley, Colorado, a municipal corporation, and its council members, officers, agents, employees, and volunteers as additional insured parties with respect to all activities Lessee may perform under this Agreement. Moreover, such endorsement shall include a notice provision requiring 30 days written notice to Greeley before any cancellation.

d. Lessee shall use only insurance companies with authority to issue policies in the State of Colorado to provide the requisite insurance coverage under this Agreement.

e. For the term of this Agreement, Lessee shall not cancel, materially change, or fail to renew the insurance coverage, and Lessee shall notify Greeley of any material reduction or exhaustion of aggregate policy limits. If Lessee fails to purchase or maintain the insurance coverage stated in this Agreement, Greeley shall have the right to procure such insurance coverage to be reimbursed at Lessee's expense.

f. Nothing in this Section 12 shall limit the extent of Lessee's responsibility for payment of claims, liabilities, damages, fines, penalties, and costs resulting from Lessee's occupancy, use, or control of the Property or Lessee's performance or nonperformance under this Lease Agreement.

13. NO VESTED INTEREST IN SHARES OR JOINT VENTURE. This Agreement is made expressly subject to Section 17-4 of the Charter of the City of Greeley. Greeley grants no interest in the Property to Lessee other than as explicitly set forth in this Agreement. Lessee shall make no claim to any rights, title, or interest in the Property other than as explicitly set forth in this Agreement. This Agreement does not create a partnership or joint venture of any kind between the Parties, and Lessee shall bear the entirety of any loss, cost, or expense incurred through its use of the Property.

14. MISCELLANEOUS PROVISIONS.

a. This Agreement shall be construed and enforced in accordance with the laws of the State of Colorado.

b. No waiver or default by Greeley of any of the terms, covenants, warranties, or conditions hereof to be performed, kept, or observed by Lessee shall be construed as, or operate as, a precedent or future waiver by Greeley of any of the terms, covenants, warranties, or conditions herein contained, to be performed, kept, or observed by Lessee.

c. Lessee agrees that Greeley is under no obligation to maintain the Property in a particular condition or for a particular use, and Lessee waives all claims for damages of any kind or nature, whatsoever, resulting therefrom.

d. Article and section headings shall not be deemed to govern, limit, modify, or in any manner affect the scope, meaning, or intent of the provisions of this Agreement.

e. The provisions of this Agreement shall be construed as to their fair meaning, and not for or against any party based upon the responsibility of either party for drafting the language in question.

f. Lessee shall perform all obligations under this Agreement in strict compliance with all applicable laws, rules, charters, ordinances and regulations, as now exist or are later enacted or amended, of Greeley, and all county, state and federal entities having jurisdiction over the Property.

g. None of the terms, conditions, or covenants in this Agreement shall give or allow any claim, benefit, or right of action by any third person not a party to this Agreement. Any person other than Greeley or Lessee receiving services or benefits under this Agreement is only an incidental beneficiary.

h. Invalidation of any specific provisions of this Agreement shall not affect the validity of any other provision of this Lease Agreement. The remaining provisions are to be interpreted in accordance with the intent of the Parties.

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EXHIBIT A
FARM LEASE AGREEMENT

Historical Use Affidavit and Questionnaire

[see attached 5 pages]

AFFIDAVIT OF HISTORICAL USE OF WATER RIGHTS

WATER RIGHTS:

Ditch or Reservoir Company: _____
Shares or Interest: _____

Name and address of owner and user of water rights:

Owner: _____
User(s): _____

Year water rights were used as described: _____

IRRIGATED LAND:

Legal description and size/acreage of land irrigated by above-mentioned water rights:

_____.

Name and address of owner(s) of above-mentioned irrigated land if different from owner or user of the water rights: _____.

I have not intended to abandon the aforementioned water rights during my period of use. I state that the information contained here and in the attached Questionnaire Regarding Use of Water Shares, which is incorporated herein by reference, is known to me and is correct.

The undersigned _____, having personal knowledge of the irrigation of the above described lands by virtue of being the owner and/or person who has farmed and irrigated those lands, being first duly sworn, hereby states that the information provided in this statement is true and accurate.

Signed and dated this ____ day of _____, 20__.

STATE OF COLORADO)
) ss.
COUNTY OF _____)

The foregoing Affidavit of Historical Use of Water Rights was acknowledged before me by _____, this ____ day of _____, 20__.

Witness my hand and Official Seal.

Notary Public
My commission expires: _____

QUESTIONNAIRE REGARDING USE OF WATER SHARES

The person completing this questionnaire need not necessarily be the Lessee, but must have personal knowledge of the information provided

1. Name of person completing this questionnaire: _____
Mailing Address: _____
Telephone: _____
Facsimile: _____
Email Address: _____
2. The information provided below pertains to _____ shares of the _____
Company, represented by Certificate No. _____ (hereinafter "Shares").
3. Did you use the Shares pursuant to a Lease Agreement? _____
Date of the Lease: _____
Name of Lessee (if different from Question 1): _____
Name of Lessor: _____
4. The information in this questionnaire relates to my use of the Shares during the 20__ irrigation
season (hereinafter "Lease Year").
5. Do you still own the farm or parcel irrigated by these Shares? _____
6. Was your use of the Shares during the Lease Year consistent with all terms and conditions of the
Lease Agreement and with the bylaws, rules, regulations, and policies of the ditch company?

7. What is the legal description of the farm or parcel on which these Shares were
used? _____
8. What is the total size of the farm or parcel? _____ acres.
9. What is the size of the area(s) on the farm or parcel that was irrigated? _____ acres.
10. What is the size of the area(s) on the farm or parcel that was irrigated using water from the
Shares? _____ acres.
11. Please provide the following information regarding how the water from these Shares is delivered.
 - Location and ID Number of the head gate at the main ditch: _____
 - Name and general location of any lateral(s) delivering the water to the land historically
irrigated: _____

- Identification of any carrier or lateral ditch stock required to deliver these rights: _____.
 - Approximate location of pumps, if used: _____.
 - Approximate location and size of storage ponds or reservoirs, including tail water ponds, if used: _____.
12. How was water applied during the Lease Year? Sprinkler _____ Furrow _____ Flood _____
Other/Combination (Describe): _____.
13. What was the irrigation season for the Lease Year? Start Date: _____ Stop Date: _____
14. During the Lease Year, did you divert and irrigate with all water available under the Shares? _____.
If no, please explain the reason why all water was not taken, approximately how much was not taken, and for how long: _____

_____.
15. Other than the Shares leased, was any other water (including other shares that are in the same Company as the Shares that are the subject of this questionnaire) used to irrigate the farm or parcel on which the Shares are/were used during the Lease Year? If so, please provide the following information.
- Number of shares: _____
 - Ditch Company: _____
 - Number of any Irrigation Wells: _____
 - Identification and Permit No. of any Irrigation Wells: _____
 - _____.
 - Capacity of Irrigation Wells: _____
 - Approximate location of Irrigation Wells: _____
 - _____.
 - Any other water used: _____
 - Describe how the water has been used, including the estimated percentage of the total irrigation supply provided by such water: _____
_____.
16. During the Lease Year, what crops were grown on the land irrigated by the Shares?
- | | | | |
|------|-------------|-------------------|-----------------|
| i. | Crop: _____ | Percentage: _____ | Location: _____ |
| ii. | Crop: _____ | Percentage: _____ | Location: _____ |
| iii. | Crop: _____ | Percentage: _____ | Location: _____ |
| iv. | Crop: _____ | Percentage: _____ | Location: _____ |
| v. | Crop: _____ | Percentage: _____ | Location: _____ |
| vi. | Crop: _____ | Percentage: _____ | Location: _____ |

17. Were the lands on which the Shares were used subirrigated? _____

18. If possible, please provide a map, sketch, or aerial photograph showing locations of (*check if included*):

- _____ Farm or Parcel
- _____ Areas irrigated by the Shares during the Lease Year
- _____ Areas irrigated with other water
- _____ Lateral ditches, wells, pumps, pipelines, storage reservoirs, or tail water ponds

I understand that I may be required to sign an affidavit attesting to the accuracy, to the best of my knowledge, of the information provided herein.

Signature: _____

Date: _____



WSSC Water Rights and Farm Acquisition (Brown)

February 20, 2019

Purchase & Sale Overview

- 2 shares of stock in Water Supply & Storage Company (WSSC)
 - Firm Yield of WSSC Share = 70 AF/share
- 152 Ac Farm northwest of Eaton, CO in Weld County historically irrigated with the above noted 2 shares of WSSC
- Total Purchase Price is \$3,949,670.00
 - **Appraised price: \$2,635,000**
- 2 shares of WSSC stock valued at approx. \$925K/share based on recent market comps
 - Approx. \$13,214.30 per acre foot of firm yield
- Shares appear to have strong historic consumptive use (HCU) on this farm; due diligence pending.

Map Brown/Brown Trust Farm



Weld Co.
Brown Farms,
Eaton, CO

Corn 2/3
Hay 50%
Beans 2/3
Wheat 2/3

Ogan & Sons
Unit 1
Guy Brown Farm
c/o Wayne Gustafson

WATER & SEWER BOARD AGENDA FEBRUARY 20, 2019

ENCLOSURE _____

NO ENCLOSURE X

ITEM NUMBER: 11

TITLE: LEGAL REPORT

POSSIBLE ACTION: STATEMENTS OF OPPOSITION, IF ANY

RECOMMENDATION: INFORMATION ONLY

ADDITIONAL INFORMATION:

WATER & SEWER BOARD AGENDA FEBRUARY 20, 2019

ENCLOSURE _____ NO ENCLOSURE X

ITEM NUMBER: 12

TITLE: DIRECTOR'S REPORT

RECOMMENDATION: INFORMATIONAL ONLY

ADDITIONAL INFORMATION:



Water & Sewer Department

MEMORANUM

TO: Greeley City Council
CC: Mr. Roy Otto, City Manager
FROM: Sean Chambers, Water & Sewer Director 
DATE: February 12, 2019

System History and Planning Overview:

City of Greeley owns and operates extensive non-potable water supply, storage, pumping and delivery systems that serve two separate but important purposes. First, non-potable supplies, including fully consumable treated wastewater effluent, are used for the repayment of return flows owed back to the river through water rights administration obligations from the dry up of agricultural lands; we call these return flow obligations. Second, we use non-potable resources for the purpose of delivering cost effective irrigation water to areas of large turf grass that have been connected via one of the canal systems running through the City. The backbone of the City's non-potable systems are the historic ditch and canal systems running through the City that serve as gravity driven water conveyance mechanisms reaching into most areas of the City.

Robust planning for non-potable supply and infrastructure evolved during the Water & Sewer Department's 2003 Water Master Plan. In the master plan's public engagement and feedback process, Greeley citizens voiced strong support for non-potable irrigation as a way to maximize water supplies and reduce treatment and transmission costs. Further, the City's '03 Water Master Plan directs the Water Department to maximize use of treatable water supplies. Treatable supplies are generally located higher in the Basin, and can be diverted to one of Greeley's water treatment plants; whereas untreatable supplies generally originate lower in the basin where delivery to our two water current water treatment plants is difficult, and where treatment of lower Poudre water quality would be more expensive. To maximize the use of treatable water supplies, the City must continue to develop non-potable sources, storage, conveyance and systems to facilitate the use of as much untreatable (lower Poudre) water as possible to supply non-potable demands.

The Water & Sewer Department is dedicated to providing the lowest cost water service while at the same time maintaining a high level of service to each of its customers. The Department has developed a significant number of non-potable systems and pump stations that are served by either the Greeley- Loveland Irrigation Company (GLIC) ditch system or the Greeley Irrigation Company (GIC) No. 3 Ditch. The legacy of these canal systems provide the City a unique gravity driven opportunity to serve non-potable water within the City. These ditch systems are one of the many water infrastructure blessings of Greeley's forefathers, and they form the foundational network for growing our raw water conveyance infrastructure without a massive replumbing of the City. Water & Sewer non-potable staff currently operate more than 40 pump stations to serve more than 100 large customers throughout the City, including many City park areas, golf courses, and cemetery demands. See Figure 1 here below.

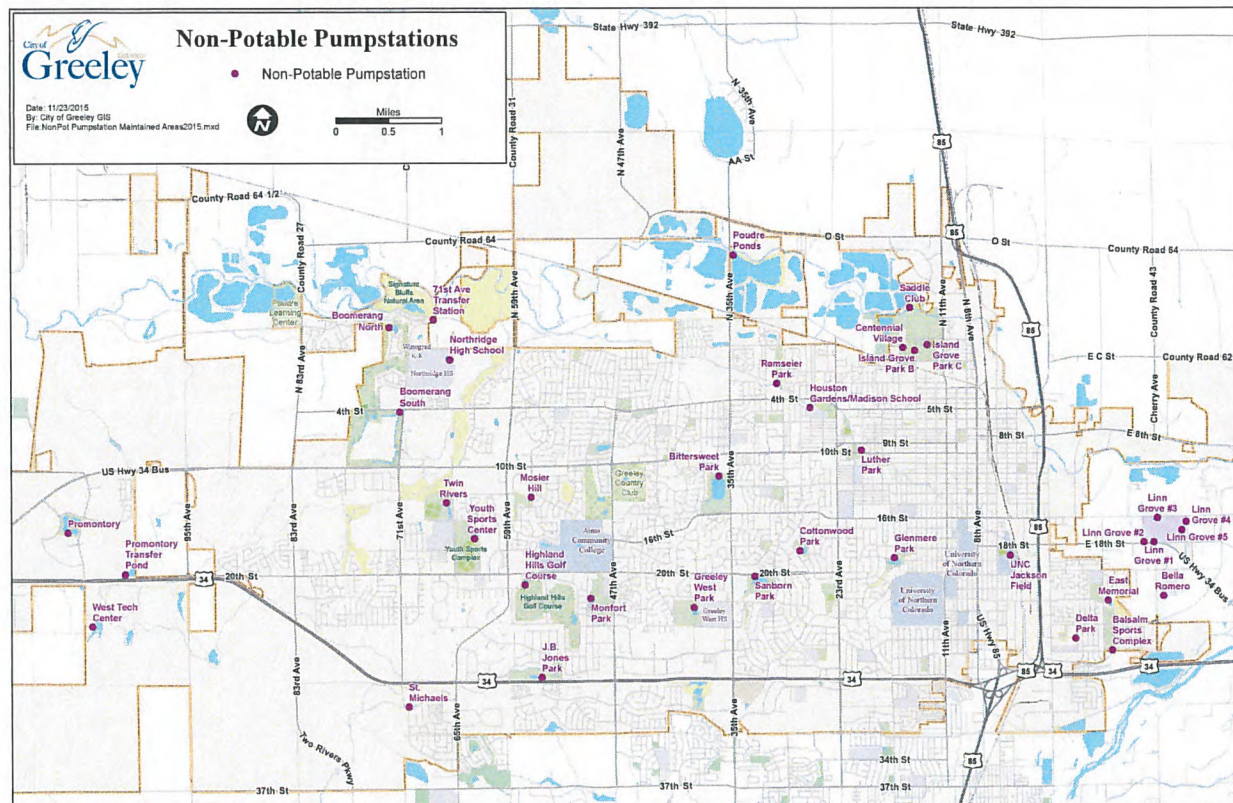


Figure 1. – Greeley’s existing non-potable sytem pump stations off No. 3 ditch & GLIC

Current Non-Potable System Status, Limitations, and Infrastructure Planning:

At present, the Department’s ability to provide non-potable water for irrigation is limited to when the ditch systems are running water for all users. In the spring and fall there is not enough agricultural demands, nor non-potable irrigation demand within the City to merit running the GLIC supplies down from Boyd Lake where 25% of the water diverted from the reservoir are lost due to seepage in transit through ditch. Therefore, additional non-potable storage, non-potable supply and conveyance pipelines to connect the water storage locations on the lower Poudre River with the high points on the GLIC ditch network are important future actions. A pump back pipeline conveyance system will be required to move water from the lower Poudre back west and up into the GLIC Canal for full season irrigation with non-potable water resources, especially when the GLIC Company is not running water down ditch. Figure 2 below illustrates current and potential future non-potable storage facilities, future routing for pressurized conveyance and visually identifies the current large-scale non-potable irrigation water demands. Water & Sewer is collaborating with Public Works to maximize the opportunities to install non-potable backbone infrastrucute with future road and bridge projects are undertaken.

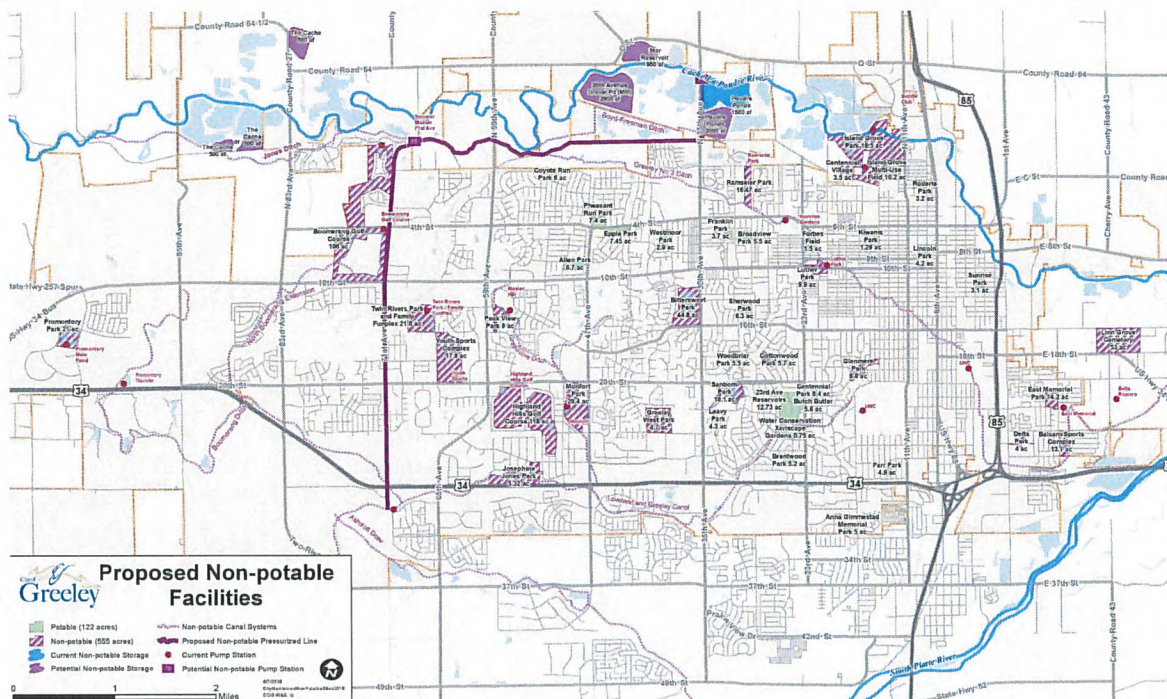


Figure 2. – Conceptual Draft Proposed Non-Potable Facilities Overview Map

The map's illustration of routing for future pressurized non-potable water infrastructure is conceptual. Routing may be more cost effective in future roadway improvement allignments further east. The future conveyance routes and sizing of facilities are under consideration, and the infrastructure will be designed to deliver raw water from the Poudre Ponds area up to the GLIC system on the City's southwest side. The process of fully analyzing infrastructure and potential raw water line alignments will be developed in late 2019 as part of the Department's work on an updated Water Transmission, Distribution and Wastewater Collections Master Plan with a supplemental scope of work for non-potable storage and transmission.



Figure 3. – Updates to Needs Assessment, Site Plans and Master Plans for Non-Potable Elements

Non-Potable system demand analysis and infrastructure planning are part of Greeley's long-term water supply and storage planning. Greeley's planning for additional or expanded reservoir storage that creates capacity to develop the City's conditional water rights, and firm future water supplies for drought resiliency. Evaluation of reservoir sizing led to the evaluation of the role, benefits, likely demands and the limitations of an expanded non-potable water system. Under consideration are the economics of shifting future irrigation demands from potable to non-potable supplies, and an assessment of the attributes of an expanded non-potable system. The W&S Department has confirmed that within limitations, the non-potable systems are more economical in comparison to constructing large amounts of storage and treatment capacity.

Staff have initiated a focused effort to model Greeley's future return flow obligations out through 2065 to incorporate the non-potable RFO demands into the systems planning. Water & Sewer is coordinating with CPRD on detailed site plans for Poudre Ponds. Further, staff is working to develop and refine policy proposals for non-potable raw water dedication, cash in lieu, and infrastructure investment fees for non-potable systems that account for costs and also incentivize development to pursue the interconnection and use of non-potable resources. Staff is researching and considering how we create programs and incentives for the conversion of larger potable systems that have been constructed for institutions, schools, HOAs/POAs or other irrigation demands that have the scale to merit a conversion project. When more is defined in terms of policy, there will need to be additional public outreach and education to general citizens and the business community; and we will seek out opportunities to connect existing potable irrigation demands with a pathway for conversion to non-potable water supply.

The Water & Sewer Department has developed the following priorities related to enhancement of the non-potable systems, availability of supply, governance policies, and financing:

1. Master plan facilities and develop cost estimates for critical infrastructure;
2. Incentivize adoption of new projects and sensible conversions;
3. Coordinate effective public outreach and education;
4. Implement key projects to develop the system, implement policies and potential changes to the municipal code to guide and incentivize non-potable systems in new development and create economically sensible conversions of large irrigated areas (institutional users such as business campuses, HOAs/POAs, churches or educational institutions may be economical to convert from onto non-potable supplies); and
5. Analyze demand and financial data from pilot and non-potable irrigation projects.

At this time, there are grant and loan programs through the Colorado Water Conservation Board (CWCB), and water efficiency grants through Northern Colorado Water Conservancy District (NCWCD) that may provide financial and technical assistance for large existing potable irrigated properties to make water efficiency improvements and concurrently convert to non-potable water. Governmental entity may access to Colorado Water Resource and Power Development Authority low interest financing and design grant programs, and the Department will invest in further identifying resources that create the pathway for conversion of existing development.

Much work and investment in the non-potable system lies ahead; the planning and projects are incorporated in Water & Sewer's work plan and budget, and there will be coordination with the City Manager, City Attorney's Office and Water & Sewer Board as the program is developed.



Highland FFA Chapter

Highland High School
P.O. Box 68
208 1st Street
Ault, CO 80610
970-834-2816
jbessire@weldre9.k12.co.us



2018-2019
Highland FFA
Officer Team

President
Lauren Frink

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Blake Fabrizio

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Courtney Carr

Reporter
Caleb Wertz

Sentinel
Samuel Scanga

Historian
Heylee Johnson

Parliamentarian
Haley Hein

Chaplain
Billie Sittner

Executive Committee
Makayla Hicks

February 6, 2019

Dear Sean Chambers:

My name is Ian Scanga and I am 14 years old. We live and farm in Ault Colorado and have another farm in Pierce Colorado. My brother and I rent the corners of the Pierce farm from our Dad. We irrigate our fields with water from the city of Greeley. I am a freshman at Highland High School. I am a part of the Highland FFA chapter. I show pigs, goats and horses. Showing livestock is another SAE of mine. My hobbies are trucks, airplanes, and boats. I am restoring a 1971 Ford F100. The truck has been in my family since they day it was bought from the dealership. I almost have it running and am planning on it being my truck when I start driving.

Thank you for sponsoring my SAE Grant. My SAE is a custom haying business. My brother and I are running the business together. This is our second year running this business. Last year we focused on how to irrigate the hay most efficiently. Last year we had to pick up our hay bales by hand, so using the money you sponsored, we are looking to buy equipment to help us accumulate and stack bales faster.

I am looking forward to keeping in touch with you over the summer. Hopefully we get to meet here soon!

Sincerely,

Ian Scanga

Greeley Water Rental Round-Up

March 15, 2019

11 a.m. to 2:30 p.m.

Eaton Country Club 37661 Co Rd 39, Eaton

Join Greeley Water & Sewer

Water Supply Outlook
Greeley's Water Rental Program/Projection
Water Sharing Strategies

**Lunch will be provided for our
existing and prospective Ag partners**

RSVP

970-350-9812

or at

GreeleyCalendar.com/AGWater

Space is Limited.

City of Greeley Water & Sewer
1001 11th Avenue, 2nd Floor
Greeley, CO 80631

Why should you be there?

To find out what the water outlook is and how it affects water rentals.

Who should attend?

- Current or prospective ag water renters in the Greeley area
- Any area farmers interested in learning about the water outlook and water resource administration

Program

- Check in /networking
- State Climatologist will discuss water year forecast
- Lunch
- State official will discuss Poudre basin outlook
- Meet Greeley Water Resources team and learn about Greeley's water rental program and water sharing strategies
- Ag innovation and partnering with Greeley

WATER & SEWER BOARD AGENDA FEBRUARY 20, 2019

ENCLOSURE _____

NO ENCLOSURE X

ITEM NUMBER: 13

TITLE: SUCH OTHER BUSINESS THAT MAY BE
 BROUGHT BEFORE THE BOARD AND
 ADDED TO THIS AGENDA BY MOTION OF
 THE BOARD

RECOMMENDATION: TO BE DETERMINED

ADDITIONAL INFORMATION: