LOVELAND UTILITIES COMMISSION

May 15, 2019 – 4:00pm

Service Center Willow Room – 200 N. Wilson Ave.

REGULAR MEETING AGENDA

CALL TO ORDER

NEW EMPLOYEE INTRODUCTIONS

APPROVAL OF MINUTES – 4/17/2019

CITIZENS REPORT (*See procedural instructions on the following page.)

INFORMATIONAL ITEMS

1. Financial Report Update – Jim Lees
2. Electric Legislative Update – Kim O'Field
3. Water Legislative Update – Ryan Van Pelt
4. Water Supply Update – Ryan Van Pelt

REGULAR AGENDA

5. Resolution related to Long-Term Augmentation Supply Agreements – Nathan Alburn
6. Water Quality Lab Construction Contract (Saunders Heath) – Brian Gandy
7. Water Quality Lab Engineering Contract Amendment (HDR) – Brian Gandy

STAFF REPORTS

8. Water Distribution Master Plan Overview– Tanner Randall
9. 2018 Water Loss Audit – Michelle Erickson
10. Levels of Service for Water and Wastewater – Michelle Erickson

COMMISSION & COUNCIL REPORTS

DIRECTOR'S REPORT

ADJOURN

The password to the public access wireless network (colguest) is accesswifi

City of Loveland

* Citizens Report Procedures

Anyone in the audience may address the LUC on any topic relevant to the commission. If the topic is a Consent Agenda item, please ask for that item to be removed from the Consent Agenda; pulled items will be heard at the beginning of the Regular Agenda. If the topic is a Regular Agenda item, members of the public will be given an opportunity to speak to the item during the Regular Agenda portion of the meeting before the LUC acts upon it. If the topic is a Staff Report item, members of the public should address the LUC during this portion of the meeting; no public comment is accepted during the Staff Report portion of the meeting.

Anyone making comment during any portion of tonight's meeting should identify himself or herself and be recognized by the LUC chairman. Please do not interrupt other speakers. Side conversations should be moved outside the Service Center Board Room. Please limit comments to no more than three minutes.

Notice of Non-Discrimination

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Notificación en Contra de la Discriminación

"La Ciudad de Loveland está comprometida a proporcionar igualdad de oportunidades para los servicios, programas y actividades y no discriminar en base a discapacidad, raza, edad, color, origen nacional, religión, orientación sexual o género. Para más información sobre la no discriminación o para asistencia en traducción, favor contacte al Coordinador Título VI de la Ciudad al TitleSix@cityofloveland.org o al 970-962-2372. La Ciudad realizará las acomodaciones razonables para los ciudadanos de acuerdo con la Ley de Discapacidades para americanos (ADA). Para más información sobre ADA o acomodaciones, favor contacte al Coordinador de ADA de la Ciudad en adacoordinator@cityofloveland.org o al 970-962-3319".

The password to the public access wireless network (colguest) is accesswifi

Commission Members Present: Dan Herlihey, Gary Hausman (Chair), Gene Packer, Larry Roos, John Butler, Sean Cronin (arrived at 4:20 pm part way through item 4), Tom Vail

Commission Members Absent: Stephanie Fancher-English, Randy Williams

Council Liaison: Steve Olson

City Staff Members Present: Andrew Paranto, Derek Turner, Frank Lindauer, Garth Silvernale, Jim Lees, Joe Bernosky, John Beckstrom, Kim O'Field, Larry Howard, Michelle Erickson, Nathan Alburn, Roger Berg, Ryan Van Pelt, Tanner Randall, Tom Greene, William Ullom, Yarani Vasquez

Guest Attendance: Jane Clevenger, Bruce Croissant, Dick Mallot, Richard Jurin, Sylvia Jurin, Rick Euker

CALL TO ORDER: Gary Hausman called the meeting to order at 4:00 pm.

NEW EMPLOYEE/NEW POSITION INTRODUCTIONS

Frank Lindauer – Senior Electrical Engineer
William Ullom – Distribution Design Supervisor
Yarani Vasquez – Electrical Engineer

APPROVAL OF MINUTES: Hausman asked for a motion to approve the minutes of the March 20, 2019 meeting.

Motion: Dan Herlihey made the motion to approve the minutes as amended.
Second: John Butler seconded the motion. The amended minutes were approved unanimously.

Amendment: Dan Herlihey amended the minutes to acknowledge that item 6 was withdrawn with the agreement of the requestor.

CITIZENS REPORT

Bruce Croissant introduced himself as a fellow citizen and activist who serves on the transportation advisory board and was attending to watch the meeting and he expressed gratitude for all the work that we do.

INFORMATION ITEMS

Item 1: Electric Legislative Update – Kim O'Field

This item and the attachment are intended to give a brief update on electric-related legislation at both the state and federal level. Loveland Water and Power works closely with Platte River Power Authority (PRPA) and its sister cities but relies primarily on the Colorado Association of Municipal Utilities (CAMU) for information on electric-related legislation.

Information Item only. No action required.

Item 2: Water Legislative Update – Ryan Van Pelt

This item is intended to give a brief update on water-related legislation being contemplated by the Colorado General Assembly. Loveland Water and Power relies primarily on the Colorado Water Congress (CWC) for information on water-related legislation.

Information Item only. No action required.

Item 3: Water Supply Update – Ryan Van Pelt

Raw water supply update.

Information Item only. No action required.

REGULAR AGENDA

Item 4: 2019 Power Cost-of-Service Rate Study Direction – Jim Lees

The purpose of this item is to get direction from the LUC to take to City Council to incorporate into the rate designs for the Power Cost-of-Service Rate Study.

Recommendation: Adopt a motion recommending that City Council direct Staff to use the Minimum System Requirement methodology to calculate the Base Charge for all customer classes for 2020.

Motion: Dan Herlihey made the motion to approve the item.
Second: John Butler seconded the motion. The item was approved unanimously by the other LUC . (Sean Cronin abstained from voting since he was not here for that portion of the discussion.)

Recommendation: Adopt a motion recommending that City Council direct Staff to use option 3 as presented today for designing the rates for 2020 for the Residential Self-Generating Class.

Motion: Dan Herlihey made the motion to approve the item.
Second: Gene Packer seconded the motion. The item was approved by a majority vote. (Sean Cronin and John Butler opposed the motion.)

Item 5: Proposed 10-Year Capital Improvement Plans – Jim Lees

The purpose of this item is to present an overview of the 2020 to 2029 10-year Capital Improvement Plan (CIP) for the Water, Raw Water, Wastewater, and Power Utilities. Staff is requesting that the Loveland Utilities Commission adopt a motion recommending that City Council approve the proposed 10-Year CIPs.

Recommendation: Adopt a motion recommending that City Council approve the proposed 2020 10-Year CIPs for the Raw Water, Water, Wastewater and Power Utilities.

Motion: Dan Herlihey made the motion to approve the item.
Second: John Butler seconded the motion. The item was approved unanimously.

STAFF REPORTS

Item 6: Augmentation Water Policies – Larry Howard

The City of Loveland is receiving requests to provide augmentation water in the form of long-term lease agreements. For comparison, this Staff Report discusses the ways in which several water suppliers in the Northern Front Range handle requests for fully reusable augmentation water, and presents known pros and cons associated with these types of lease agreements.

Staff Report only. No action required.

Item 7: Quarterly Financial Report Update – Jim Lees

This item summarizes the monthly and year-to date financials for March 2019. Pushed to next month

Staff Report only. No action required.

This item was pushed to the May 2019 LUC meeting.

COMMISSION/COUNCIL REPORTS

Item 8: Commission/Council Reports

Discuss events that the Loveland Utility Commission Board members attended, special topics and any City Council items related to the Water and Power Department from the past month.

Tom Vail: none
Larry Roos: none
Gene Packer: Inquired where we are in timing with Chimney Hollow. Staff responded that they hope to be starting construction next year depending on the outcome of the current litigation case. Derek Turner provided an overview of what has occurred in the court case.
Sean Cronin: His son was involved in a statewide stock competition at Carrie Martin Elementary and earned the school $100. The school decided to focus the $100 on some type of water project. They had an entrepreneurial fair where the children made and sold things and turned the $100 into $500. He complimented Chris Giesting on his enthusiasm to provide a tour of the water treatment plant for the students.
John Butler: Had several red flags out front indicating where the power was and he was hoping they would be putting an LED light in his front yard, but they did not.
Dan Herlihey: none
Gary Hausman: none

Council Report: Attended a water conference in Houston, Texas that had a purpose to provide opportunities for collaboration on water utility issues. Issues regarding water are local issues and differ depending on where you are. They discussed integrating land use and water use, growing interest in water reuse initiatives (gray water, rain harvesting, non-potable reuse, etc.) and water conservation initiatives. Enjoyed attending The Spring Water Users meeting at The Ranch hosted by Northern Water. On March 19th, City Council approved an IGA on solid waste and Fort Collins has withdrawn their approval because of concerns with some of their haulers. Broadband bonds of almost $100M sold in about 1.5 hours with great rates of 3.49% for taxable and 3.02% for non-taxable.

DIRECTOR'S REPORT

Item 9: Director's Report – Joe Bernosky

The snow pack is doing well on both sides of the continental divide. Northern Water set a 70% quota allocation on CBT. We have some great new staff in the Power Division.

ADJOURN The meeting was adjourned at 6:56 pm. The next LUC Meeting will be May 15, 2019 at 4:00 pm.

Respectfully submitted,

Michelle Erickson
Recording Secretary
Loveland Utilities Commission
/s/ Gary Hausman, LUC Chairman

LOVELAND UTILITIES COMMISSION

AGENDA ITEM: 1
MEETING DATE: 5/15/2019
SUBMITTED BY: Jim Lees
STAFF TITLE: Utility Accounting Manager

ITEM TITLE:

Agenda Item Title – Financial Report Update

DESCRIPTION:

This item summarizes the monthly and year-to date financials for April 2019.

SUMMARY:

The April 2019 financial reports are submitted for Commission review. The following table summarizes the sales and expense results for the month of April, and the April Year-To-Date results in comparison to the same periods from 2018. The summarized and detailed monthly financial statements that compare April Year-To-Date actuals to the 2019 budgeted figures are attached.

	April				April Year-To-Date			
	2019	2018	$ Ovr/(Und) vs. 2018	% Ovr/(Und) vs. 2018	2019	2018	$ Ovr/(Und) vs. 2018	% Ovr/(Und) vs. 2018
WATER								
Sales	$891,050	$903,116	($12,066)	-1.3%	$3,662,695	$3,529,973	$132,722	3.8%
Operating Expenses	$925,688	$767,091	$158,597	20.7%	$4,762,446	$4,707,650	$54,796	1.2%
Capital (Unrestricted)	$91,463	$81,183	$10,280	12.7%	$1,865,618	$290,411	$1,575,207	542.4%
WASTEWATER								
Sales	$1,030,117	$966,731	$63,386	6.6%	$4,292,989	$3,985,091	$307,899	7.7%
Operating Expenses	$819,220	$624,497	$194,723	31.2%	$3,095,057	$2,522,300	$572,757	22.7%
Capital (Unrestricted)	$2,789,673	$1,111,965	$1,677,708	150.9%	$3,479,013	$1,814,689	$1,664,325	91.7%
POWER								
Sales	$4,896,780	$4,785,748	$111,032	2.3%	$20,942,294	$20,506,396	$435,898	2.1%
Operating Expenses	$4,192,305	$4,022,770	$169,535	4.2%	$17,492,959	$17,352,490	$140,469	0.8%
Capital (Unrestricted)	$970,015	$850,637	$119,378	14.0%	$3,169,733	$2,988,188	$181,545	6.1%

RECOMMENDATION:

Staff item only. No action required.

ATTACHMENTS: If you have attachment(s), please list them here. Otherwise, please delete this section.

- Attachment A: City of Loveland Financial Statement-Raw Water
- Attachment B: City of Loveland Financial Statement-Water
- Attachment C: City of Loveland Financial Statement-Wastewater
- Attachment D: City of Loveland Financial Statement-Power

Attachment A

City of Loveland
Financial Statement-Raw Water
For Period Ending 04/30/2019 - Preliminary as of 5-6-19

		TOTAL BUDGET FYE 12/31/2019	YTD ACTUAL	YTD BUDGET	OVER <UNDER>	VARIANCE
1	**REVENUES & SOURCES**					
2	High Use Surcharge	73,118	8,907	2,950	5,957	201.9%
3	Raw Water Development Fees/Cap Rec Surcharge	485,213	130,716	149,044	(18,328)	-12.3%
4	Cash-In-Lieu of Water Rights	227,167	93,976	75,724	18,252	24.1%
5	Native Raw Water Storage Fees	196,876	0	42,000	(42,000)	-100.0%
6	Proceeds on Loan	37,560,000	0	0	0	0.0%
7	Raw Water 3% Transfer In	531,164	109,881	113,279	(3,398)	-3.0%
8	Interest on Investments	300,965	151,077	100,320	50,757	50.6%
9	**TOTAL REVENUES & SOURCES**	**39,374,503**	**494,556**	**483,317**	**11,239**	**2.3%**
10	**OPERATING EXPENSES**					
11	Loan to Water	0	0	0	0	0.0%
12	Windy Gap Payments	7,100	7,044	2,368	4,676	197.5%
13	**TOTAL OPERATING EXPENSES**	**7,100**	**7,044**	**2,368**	**4,676**	**197.5%**
14	NET OPERATING REVENUE/(LOSS) (excl depr)	39,367,403	487,512	480,949	6,563	1.4%
15	RAW WATER CAPITAL EXPENDITURES	59,433,300	4,466,676	22,221,968	(17,755,292)	-79.9%
16	**BUDGET FUND BALANCE**	**6,590,587**	**22,667,780**	**4,915,465**	**17,752,315**	**361.2%**

NOTE: YTD ACTUAL DOES NOT INCLUDE ENCUMBRANCES TOTALING: 173,541

Attachment B

City of Loveland
Financial Statement-Water
For Period Ending 04/30/2019 - Preliminary as of 5-6-19

		TOTAL BUDGET FYE 12/31/2019	YTD ACTUAL	YTD BUDGET	OVER <UNDER>	VARIANCE
1	****UNRESTRICTED FUNDS****					
2	**REVENUES & SOURCES**					
3	Water Sales	17,705,446	3,662,695	3,775,967	(113,272)	-3.0%
4	Raw Water Transfer Out	(531,164)	(109,881)	(113,279)	3,398	-3.0%
5	Wholesale Sales	181,091	18,894	9,511	9,383	98.7%
6	Meter Sales	92,269	23,275	30,756	(7,481)	-24.3%
7	Interest on Investments	120,220	16,182	40,072	(23,890)	-59.6%
8	Other Revenue	1,117,884	113,519	674,330	(560,811)	-83.2%
9	Federal and State Grants	0	0	0	0	0.0%
10	Internal Loan Monies Received	0	0	0	0	0.0%
11	External Loan Monies Received	0	0	0	0	0.0%
12	**TOTAL REVENUES & SOURCES**	**18,685,746**	**3,724,685**	**4,417,357**	**(692,672)**	**-15.7%**
13	**OPERATING EXPENSES**					
14	Source of Supply	2,537,633	650,259	808,306	(158,047)	-19.6%
15	Treatment	3,805,856	910,537	1,192,051	(281,514)	-23.6%
16	Distribution Operation & Maintenance	3,947,022	979,401	1,367,064	(387,663)	-28.4%
17	Administration	2,683,622	172,060	1,464,859	(1,292,798)	-88.3%
18	Customer Relations	408,736	98,554	131,070	(32,516)	-24.8%
19	PILT	1,202,200	248,697	400,728	(152,031)	-37.9%
20	1% for Arts Transfer	76,788	17,727	64,248	(46,521)	-72.4%
21	Services Rendered-Other Departments	1,530,293	510,100	510,100	0	0.0%
22	Internal Loan Debt Expense	783,750	792,458	783,750	8,708	1.1%
23	External Loan Debt Expense	1,015,685	382,652	338,560	44,092	13.0%
24	**TOTAL OPERATING EXPENSES**	**17,991,585**	**4,762,446**	**7,060,736**	**(2,298,290)**	**-32.6%**
26	NET OPERATING REVENUE/(LOSS)(excl depr)	694,161	(1,037,761)	(2,643,379)	1,605,618	-60.7%
27	CAPITAL EXPENDITURES	5,557,708	1,865,618	3,544,878	(1,679,260)	-47.4%
28	REVENUES LESS OPER EXP LESS CAPITAL	(4,863,547)	(2,903,379)	(6,188,257)	3,284,878	-53.1%
30	ENDING BUDGET FUND BALANCE (29% OF OPER EXP)	**3,951,317**	**5,169,900**	**2,744,057.9**		
31	WATER DEBT FUNDS ENDING CASH BALANCE		**614,853**			
32	MINIMUM BALANCE (18% OF OPER EXP)		3,238,485			
33	**OVER/(UNDER) MINIMUM BALANCE**		**1,931,415**			
34	****RESTRICTED FUNDS****					
35	**REVENUES & SOURCES**					
36	SIF Collections	5,732,613	725,061	1,797,300	(1,072,239)	-59.7%
37	SIF Interest Income	37,710	22,920	12,572	10,348	82.3%
38	SIF Federal and State Grants	0	(10,829)	0	(10,829)	0.0%
39	Internal Loan Monies Received	0	0	0	0	0.0%
40	**TOTAL SIF REVENUES & SOURCES**	**5,770,323**	**737,152**	**1,809,872**	**(1,072,720)**	**-59.3%**
41	SIF Capital Expenditures	5,874,420	570,305	2,962,058	(2,391,754)	-80.7%
42	1% for Arts Transfer	40,372	4,712	17,172	(12,460)	-72.6%
43	Legal Agreements & Shared Costs	334,375	17,885	111,456	(93,571)	-84.0%
44	**TOTAL SIF CAPITAL EXPENDITURES**	**6,249,167**	**592,901**	**3,090,686**	(2,497,785)	-80.8%
45	**SIF REVENUE LESS EXPENDITURES**	**(478,844)**	**144,251**	**(1,280,814)**	**1,425,065**	**-111.3%**
46	SIF ENDING BUDGET FUND BALANCE	**2,709,857**	**3,527,701**	**1,850,010.02**		
47	**TOTAL ENDING CASH BALANCE**		**8,697,602**			
	NOTE: YTD ACTUAL DOES NOT INCLUDE ENCUMBRANCES TOTALING:		3,211,316			
48	Water Treated at WTP (in million gallons)		825			
49	Water Sold To Customers (in million gallons, includes Ranch Water & Hydrant Sales)	3,808	606	621	(15)	-2.5%

Attachment C

City of Loveland-LIVE
Financial Statement-Wastewater
For Period Ending 04/30/2019 - Preliminary as of 5-6-19

		TOTAL BUDGET FYE 12/31/2019	YTD ACTUAL	YTD BUDGET	OVER <UNDER>	VARIANCE
1	****UNRESTRICTED FUNDS****					
2	**REVENUES & SOURCES**					
3	Sanitary Sewer Charges	13,584,364	4,292,989	4,309,850	(16,861)	-0.4%
4	High Strength Surcharge	427,327	94,486	113,056	(18,570)	-16.4%
5	Interest on Investments	38,862	74,101	12,956	61,145	471.9%
6	Other Revenue	1,124,075	8,972	123,907	(114,935)	-92.8%
7	Bond Proceeds	4,476,304	3,914,304	4,476,304	(562,000)	-12.6%
8	Federal Grants	0	0	0	0	0.0%
9	State Grants	0	0	0	0	0.0%
10	**TOTAL REVENUES & SOURCES**	**19,650,932**	**8,384,851**	**9,036,073**	**(651,222)**	**-7.2%**
11	**OPERATING EXPENSES**					
					0	0.0%
12	Treatment	4,344,696	1,288,427	1,376,620	(88,193)	-6.4%
13	Collection System Maintenance	3,131,242	692,349	965,087	(272,738)	-28.3%
14	Administration	1,460,642	100,912	1,072,735	(971,823)	-90.6%
15	Customer Relations	76,060	20,870	20,936	(66)	-0.3%
16	PILT	980,820	307,123	326,940	(19,817)	-6.1%
17	1% for Arts Transfer	167,020	33,896	141,594	(107,698)	-76.1%
18	Services Rendered-Other Departments	928,606	309,536	309,536	0	0.0%
19	Debt Service	2,063,177	341,945	1,354,392	(1,012,447)	-74.8%
20	**TOTAL OPERATING EXPENSES**	**13,152,263**	**3,095,057**	**5,567,840**	**(2,472,783)**	**-44.4%**
21	NET OPERATING REVENUE/(LOSS)(excl depr)	6,498,669	5,289,793	3,468,233	1,821,561	52.5%
22	CAPITAL EXPENDITURES	13,754,631	3,479,013	10,933,511	(7,454,498)	-68.2%
23	REVENUES LESS OPER EXP LESS CAPITAL	(7,255,962)	1,810,780	(7,465,278)	9,276,058	-124.3%
24	ENDING BUDGET FUND BALANCE (103% OF OPER EXP)	**6,082,085**	**13,598,161**	**4,544,054.16**	**9,054,107**	
25	WASTEWATER DEBT FUNDS ENDING CASH BALANCE		59,711			
26	MINIMUM BALANCE (18% OF OPER EXP)		2,367,407			
27	OVER/(UNDER) MINIMUM BALANCE		**11,230,754**			
28	****RESTRICTED FUNDS****					
29	**REVENUES & SOURCES**					
30	SIF Collections	2,774,324	478,584	479,984	(1,400)	-0.3%
31	SIF Interest Income	2,640	47,913	880	47,033	5344.7%
32	SIF Bond Proceeds	1,837,089	2,399,089	1,837,089	562,000	30.6%
33	**TOTAL SIF REVENUES & SOURCES**	**4,614,053**	**2,925,587**	**2,317,953**	**607,634**	**26.2%**
34	SIF Capital Expenditures	4,677,835	(447,923)	3,702,839	(4,150,762)	-112.1%
35	1% for Arts Transfer	92,384	(5,208)	84,052	(89,260)	-106.2%
36	Debt Service	591,393	209,579	197,128	12,451	6.3%
37	**TOTAL SIF CAPITAL EXPENDITURES**	5,361,612	**(243,552)**	3,984,019	(4,227,571)	-106.1%
38	**SIF REVENUE LESS EXPENDITURES**	(747,559)	3,169,139	(1,666,066)	4,835,205	-290.2%
39	SIF ENDING BUDGET FUND BALANCE	**3,431,413**	**5,500,570**	**2,513,654.8**	**2,986,916**	
40	**TOTAL ENDING CASH BALANCE**		**19,098,732**			

NOTE: YTD ACTUAL DOES NOT INCLUDE ENCUMBRANCES TOTALING

Wastewater Treated at WWTP (in million gallons)	N/A	658	N/A	
Wastewater Billed To Customers (in million gallons)	1,778	541	549	(9)	-1.6%

Attachment D

City of Loveland
Financial Statement-Power
For Period Ending 04/30/2019 - Preliminary as of 5/07/2019

		TOTAL BUDGET		YTD ACTUAL	YTD BUDGET	OVER <UNDER>	VARIANCE
	****UNRESTRICTED FUNDS****						
1	REVENUES & SOURCES:						
2	Electric revenues	$68,256,630		$20,942,294	$21,112,120	($169,826)	-0.8%
3	Wheeling charges	$265,000		$77,444	$88,333	($10,889)	-12.3%
4	Interest on investments	$397,580		$76,284	$132,527	($56,243)	-42.4%
5	Aid-to-construction deposits	$1,610,000		$382,366	$536,667	($154,301)	-28.8%
6	Customer deposit-services	$310,000		$23,317	$103,333	($80,016)	-77.4%
7	Late Payment Penalty Fees	$450,000		$150,060	$150,000	$60	0.0%
8	Connect Fees	$170,000		$45,814	$56,667	($10,853)	-19.2%
9	Services rendered to other depts.	$67,500		$0	$22,500	($22,500)	-100.0%
10	Other revenues	$386,572		$216,280	$128,857	$87,422	67.8%
11	Federal Grants	$0		$0	$0	$0	0.0%
12	State Grants	$0		$0	$0	$0	0.0%
13	Year-end cash adjustments	$0		$0	$0	$0	0.0%
14	**TOTAL REVENUES & SOURCES**	**$71,913,282**		**$21,913,858**	**$22,331,004**	**($417,146)**	**-1.9%**
15	OPERATING EXPENSES:						
16	Hydro oper. & maint.	$1,308,616		$103,280	$452,982	($349,702)	-77.2%
17	Solar oper.& maint.	$90,000		$0	$31,154	($31,154)	-100.0%
18	Purchased power	$44,761,779		$13,169,265	$13,174,132	($4,867)	0.0%
19	Distribution oper. & maint.	$5,674,385		$1,306,050	$1,964,210	($658,160)	-33.5%
21	Customer Relations	$1,557,956		$201,742	$539,292	($337,551)	-62.6%
22	Administration	$3,504,208		$281,767	$1,212,995	($931,228)	-76.8%
23	Payment in-lieu-of taxes	$4,777,960		$1,450,474	$1,543,281	($92,807)	-6.0%
24	1% for Arts Transfer	$105,703		$19,081	$34,142	($15,061)	-44.1%
25	Services rendered-other depts.	$2,883,905		$961,300	$961,302	($2)	0.0%
26	**TOTAL OPERATING EXPENSES (excl depn)**	**$64,664,512**		**$17,492,959**	**$19,913,491**	**($2,420,531)**	**-12.2%**
27	NET OPERATING REVENUE/(LOSS) (excl depn)	$7,248,770		$4,420,899	$2,417,513	$2,003,385	
28	CAPITAL EXPENDITURES:						
29	General Plant/Other Generation & Distribution	$10,458,300		$2,607,497	$3,315,219	($707,723)	-21.3%
30	Aid-to-construction	$1,530,000		$492,651	$804,231	($311,580)	-38.7%
31	Service installations	$310,000		$69,585	$107,308	($37,723)	-35.2%
32	**TOTAL CAPITAL EXPENDITURES**	**$12,298,300**		**$3,169,733**	**$4,226,758**	**($1,057,025)**	**-25.0%**
33	**REVENUES LESS OPER EXP LESS CAPITAL**	($5,049,530)		$1,251,166	($1,809,244)	$3,060,410	
34	**ENDING BUDGET FUND BALANCE (18% of Oper Ex**	**$10,870,411**		**$11,365,773**	**$14,727,955**	**($3,362,182)**	**-22.8%**
35	MINIMUM BAL. (18% of OPER EXP)			$11,639,612			
36	OVER/(UNDER) MINIMUM BALANCE			($273,839)			
37	****RESTRICTED FUNDS****						
38	PIF Collections	$2,743,740		$937,251	$914,580	$22,671	2.5%
39	PIF Interest Income	$37,450		$55,034	$12,483	$42,551	340.9%
40	Water Loan Payback	$783,750		$792,458	$783,750	$8,708	1.1%
41	Federal Grants	$0		$0	$0	$0	0.0%
42	State Grants	$0		$0	$0	$0	0.0%
43	**TOTAL REVENUES**	**$3,564,940**		**$1,784,743**	**$1,710,813**	**$73,930**	**4.3%**
44	PIF Feeders	$5,835,511		$1,268	$2,019,985	($2,018,717)	-99.9%
45	PIF Substations & Solar	$2,464,418		$416,618	$821,473	($404,855)	-49.3%
46	**TOTAL EXPENDITURES**	**$8,299,929**		**$417,886**	**$2,841,457**	**($2,423,571)**	**-85.3%**
47	**PIF REVENUES LESS EXPENDITURES**	($4,734,989)		$1,366,857	($1,130,644)	$2,497,501	
48	**ENDING PIF BUDGET FUND BALANCE**	**$2,978,132**		**$9,170,484**	**$7,360,728**	**$1,809,755**	**24.6%**
49	**TOTAL ENDING CASH BALANCE**			**$20,536,257**			

NOTE: YTD ACTUAL does NOT include encumbrances totalling $5,073,221

50	Energy Purchased (in million kWh) from PRPA	739		231	229	2	0.8%
51	Energy Sold to Customers (in million kWh)	716		225	228	(3)	-1.1%

LOVELAND UTILITIES COMMISSION

AGENDA ITEM: 2
MEETING DATE: 5/15/2019
SUBMITTED BY: Kim O'Field
STAFF TITLE: Technical Specialist

ITEM TITLE:

Electric Legislative Update

DESCRIPTION:

This item and the attachment are intended to give a brief update on electric-related legislation at both the state and federal level. Loveland Water and Power works closely with Platte River Power Authority (PRPA) and its sister cities but relies primarily on the Colorado Association of Municipal Utilities (CAMU) for information on electric-related legislation.

SUMMARY:

State Update:

Please see Attachment A for the Legislative Tracking Sheet of current state bills.

RECOMMENDATION:

Information item only. No action required.

ATTACHMENTS:

- Attachment A: Legislative Tracking Sheet

Attachment A

Colorado Association of Municipal Utilities
2019 State Legislative Tracking Sheet

HB19-1003	**Community Solar Gardens Modernization Act**
Comment:	**Municipal utilities are currently exempted from this section of statue. CAMU will monitor to protect exemption language.**
Position:	**Monitor**
Short Title:	Community Solar Gardens Modernization Act
Sponsors:	C. Hansen | A. Valdez / M. Foote | T. Story
Summary:	Increasing the maximum size of a CSG from 2 megawatts to 10 megawatts.
Status:	1/4/2019 Introduced In House - Assigned to Energy & Environment 1/17/2019 House Committee on Energy & Environment Refer Amended to Appropriations 2/28/2019 House Committee on Appropriations Refer Amended to House Committee of the Whole 3/1/2019 House Second Reading Laid Over Daily - No Amendments 3/5/2019 House Second Reading Laid Over to 03/08/2019 - No Amendments 3/15/2019 House Second Reading Re-referred to Appropriations - No Amendments 3/29/2019 House Second Reading Special Order - Passed with Amendments - Committee, Floor 4/1/2019 House Third Reading Passed - No Amendments 4/3/2019 Introduced In Senate - Assigned to Transportation & Energy 4/16/2019 Senate Committee on Transportation & Energy Refer Amended to Senate Committee of the Whole 4/19/2019 Senate Second Reading Laid Over Daily - No Amendments 4/23/2019 Senate Second Reading Passed with Amendments - Committee, Floor 4/24/2019 Senate Third Reading Passed with Amendments - Floor 4/25/2019 House Considered Senate Amendments - Result was to Laid Over Daily 4/29/2019 House Considered Senate Amendments - Result was to Concur - Repass
Amendments:	Amendments
Bill Version:	Pre-Amended

HB19-1037 Colorado Energy Impact Assistance Act

Comment:

Position: **Monitor**

Short Title: Colorado Energy Impact Assistance Act

Sponsors: C. Hansen | D. Esgar / K. Donovan

Summary: The bill authorizes any electric utility (utility) to apply to the public utilities commission (PUC) for a financing order that will authorize the utility to issue low-cost Colorado energy impact assistance bonds (bonds) to lower the cost to electric utility customers (ratepayers) when the retirement of a power plant occurs.

Status:
1/4/2019 Introduced In House - Assigned to Energy & Environment
2/11/2019 House Committee on Energy & Environment Refer Amended to House Committee of the Whole
2/14/2019 House Second Reading Laid Over Daily - No Amendments
2/25/2019 House Second Reading Laid Over to 02/27/2019 - No Amendments
2/26/2019 House Second Reading Laid Over to 02/28/2019 - No Amendments
2/28/2019 House Second Reading Passed with Amendments - Committee, Floor
3/1/2019 House Third Reading Laid Over Daily - No Amendments
3/4/2019 House Third Reading Passed - No Amendments
3/7/2019 Introduced In Senate - Assigned to Agriculture & Natural Resources
4/18/2019 Senate Committee on Agriculture & Natural Resources Refer Amended to Transportation & Energy
4/25/2019 Senate Committee on Transportation & Energy Postpone Indefinitely

Amendments: Amendments

Bill Version: Pre-Amended

HB19-1087 Local Public Meeting Notices Posted On Website

Comment: **CML to Monitor. Working on an amendment to make the language permissive.**

Position: **Monitor**

Short Title: Local Public Meeting Notices Posted On Website

Sponsors: M. Soper | C. Hansen / R. Woodward | J. Bridges

Summary: Requires a local government to post notices of public meetings required by the state open meetings law on the local government's website.

Status: 1/14/2019 Introduced In House - Assigned to Transportation & Local Government
3/19/2019 House Committee on Transportation & Local Government Refer Amended to House Committee of the Whole
3/21/2019 House Second Reading Passed with Amendments - Committee
3/22/2019 House Third Reading Passed - No Amendments
3/25/2019 Introduced In Senate - Assigned to Local Government
4/2/2019 Senate Committee on Local Government Refer Unamended - Consent Calendar to Senate Committee of the Whole
4/5/2019 Senate Second Reading Passed - No Amendments
4/8/2019 Senate Third Reading Passed - No Amendments
4/22/2019 Signed by the Speaker of the House
4/23/2019 Sent to the Governor
4/23/2019 Signed by the President of the Senate
4/25/2019 Governor Signed

Amendments: Amendments

Bill Version: Pre-Amended

HB19-1096 Colorado Right To Rest

Comment: **The definition of "public space" includes municipal utility facilities. Working with CML to oppose or amend the bill to refine this overly-broad definition.**

Position: **Monitor**

Short Title: Colorado Right To Rest

Sponsors: J. Melton

Summary: Establishes basic rights for people experiencing homelessness, including but not limited to the right to rest in public spaces, to shelter themselves from the elements, to occupy a legally parked vehicle, and to have a reasonable expectation of privacy of their property

Status: 1/14/2019 Introduced In House - Assigned to Transportation & Local Government
2/26/2019 House Committee on Transportation & Local Government Postpone Indefinitely

Amendments:

Bill Version: Introduced

HB19-1159 Modify Innovative Motor Vehicle Income Tax Credits

Comment:

Position: Monitor

Short Title: Modify Innovative Motor Vehicle Income Tax Credits

Sponsors: S. Jaquez Lewis | M. Gray / J. Danielson

Summary: Modifies the amounts of and extends the number of available years of the existing income tax credits for the purchase or lease of an electric motor vehicle, a plug-in hybrid electric motor vehicle, and an original equipment manufacturer electric truck and plug-in hybrid electric truck.

Status: 1/29/2019 Introduced In House - Assigned to Energy & Environment + Finance
2/25/2019 House Committee on Energy & Environment Refer Unamended to Finance
3/11/2019 House Committee on Finance Refer Amended to Appropriations
4/23/2019 House Committee on Appropriations Refer Amended to House Committee of the Whole
4/23/2019 House Second Reading Special Order - Passed with Amendments - Committee
4/24/2019 House Third Reading Passed - No Amendments
4/24/2019 Introduced In Senate - Assigned to Finance
4/29/2019 Senate Committee on Finance Refer Amended to Appropriations
4/30/2019 Senate Committee on Appropriations Refer Unamended to Senate Committee of the Whole
5/2/2019 Senate Second Reading Passed with Amendments - Committee
5/3/2019 Senate Third Reading Passed - No Amendments
5/3/2019 House Considered Senate Amendments - Result was to Concur - Repass

Amendments: Amendments

Bill Version: Pre-Amended

HB19-1179 Public Fund Investments

Comment:

Position: Monitor

Short Title: Public Fund Investments

Sponsors: M. Gray / P. Lee

Summary: The bill defines nationally recognized statistical rating organizations and negotiable certificate of deposit.

The bill also modifies statutes governing the legal investments of public funds as follows:

- ★
- ★ Modifies and standardizes the credit rating requirements for securities invested in by public entities;
- ★
- ★ Clarifies that negotiable certificates of deposit are a legal investment and not deposits subject to the limitation of the "Public Deposit Protection Act";
- ★ Requires money market funds invested in by public funds to have an investment policy or objective which seeks to maintain a stable net asset value of one dollar per share;
- ★ Includes the secured overnight financing rate, the federal funds rate, or other reference rates which are similar to the United States dollar London interbank offer rate, the secured overnight financing rate, and the federal funds rate as permissible reference rates; and
- ★ Allows public entities to invest in local government investment pools.

(Note: This summary applies to the reengrossed version of this bill as introduced in the second house.)

Status:
2/14/2019 Introduced In House - Assigned to Finance
3/14/2019 House Committee on Finance Refer Amended to House Committee of the Whole
3/19/2019 House Second Reading Passed with Amendments - Committee
3/20/2019 House Third Reading Passed - No Amendments
3/26/2019 Introduced In Senate - Assigned to Finance
4/16/2019 Senate Committee on Finance Refer Amended - Consent Calendar to Senate Committee of the Whole
4/18/2019 Senate Second Reading Passed with Amendments - Committee
4/19/2019 Senate Third Reading Passed - No Amendments
4/22/2019 House Considered Senate Amendments - Result was to Concur - Repass
5/6/2019 Signed by the Speaker of the House
5/7/2019 Sent to the Governor
5/7/2019 Signed by the President of the Senate

Amendments: Amendments

Bill Version: Pre-Amended

HB19-1188 Greenhouse Gas Pollution Impact In Fiscal Notes

Comment:

Position: **Monitor**

Short Title: Greenhouse Gas Pollution Impact In Fiscal Notes

Sponsors: E. Sirota | M. Snyder / M. Foote

Summary: Beginning in 2020, the bill requires fiscal notes on legislative measures to include an assessment of whether the measure is likely to directly cause a net increase or decrease in greenhouse gas pollution in the 10-year period following its enactment. The assessment must consider new sources of emissions, increases or decreases in existing sources of emissions, and any impact on sequestration of emissions. The fiscal note is not required to estimate the magnitude of the impact. The director of research of the legislative council staff is required to develop policies and procedures for completing the assessment. The department of natural resources, the Colorado energy office, and other state agencies with relevant subject matter expertise are required to cooperate with and provide information, if requested, to develop the policies and procedures for the assessment and to provide information to the legislative council staff on a legislative measure's impact on greenhouse gas pollution in connection with the preparation of a fiscal note.

(Note: This summary applies to the reengrossed version of this bill as introduced in the second house.)

Status: 2/19/2019 Introduced In House - Assigned to Energy & Environment + Appropriations
3/4/2019 House Committee on Energy & Environment Refer Unamended to Appropriations
4/12/2019 House Committee on Appropriations Refer Amended to House Committee of the Whole
4/12/2019 House Second Reading Special Order - Passed with Amendments - Committee
4/15/2019 House Third Reading Laid Over Daily - No Amendments
4/16/2019 House Third Reading Passed - No Amendments
4/17/2019 Introduced In Senate - Assigned to Legislative Council
4/18/2019 Senate Committee on Legislative Council Refer Unamended to Appropriations
4/23/2019 Senate Committee on Appropriations Refer Unamended to Senate Committee of the Whole
4/25/2019 Senate Second Reading Laid Over Daily - No Amendments
5/2/2019 Senate Second Reading Passed with Amendments - Floor
5/3/2019 Senate Third Reading Passed - No Amendments
5/3/2019 Senate Third Reading Reconsidered - No Amendments
5/3/2019 Senate Third Reading Passed - No Amendments
5/3/2019 House Considered Senate Amendments - Result was to Concur - Repass

Amendments: Amendments

Bill Version: Pre-Amended

HB19-1198 Electric Vehicle Grant Fund

Comment:

Position: Monitor

Short Title: Electric Vehicle Grant Fund

Sponsors: A. Valdez | D. Valdez / J. Bridges | K. Priola

Summary: The bill modifies the statute governing the electric vehicle grant fund (fund) as follows:

- ★ Allows the fund to be used to administer grants for the installation of charging stations for electric vehicles;
- ★ Allows the fund to prioritize the grants it will provide based on criteria defined by the Colorado energy office;
- ★ Allows the fund to be used to fully fund the installation of charging stations and offset station operating costs; and
- ★ Requires the money in the fund to be continuously appropriated to the Colorado energy office.

(Note: This summary applies to the reengrossed version of this bill as introduced in the second house.)

Status: 2/20/2019 Introduced In House - Assigned to Energy & Environment + Appropriations
3/4/2019 House Committee on Energy & Environment Refer Unamended to House Committee of the Whole
3/7/2019 House Second Reading Passed - No Amendments
3/8/2019 House Third Reading Passed - No Amendments
3/11/2019 Introduced In Senate - Assigned to Transportation & Energy
3/26/2019 Senate Committee on Transportation & Energy Refer Unamended to Senate Committee of the Whole
3/29/2019 Senate Second Reading Passed - No Amendments
4/1/2019 Senate Third Reading Passed - No Amendments
4/9/2019 Sent to the Governor
4/9/2019 Signed by the President of the Senate
4/9/2019 Signed by the Speaker of the House
4/17/2019 Governor Signed

Amendments:

Bill Version: Signed Act

HB19-1199 Colorado Clean Pass Act

Comment:

Position: **Monitor**

Short Title: Colorado Clean Pass Act

Sponsors: A. Valdez / B. Pettersen | F. Winter

Summary: On and after July 1, 2022, the bill requires the high-performance transportation enterprise (HPTE) to impose an express lane access fee (access fee) in a specified amount annually at the time of registration of any eligible plug-in electric motor vehicle that weighs 19,500 pounds or less, that is certified as being qualified for the federal plug-in electric drive motor vehicle tax credit or can be recharged from an external source of electricity and that stores electricity in a rechargeable battery that propels or contributes to the propulsion of the vehicle's drive wheels if the owner of the vehicle chooses to pay the access fee in exchange for the right to operate the vehicle on express lanes without regard to the number of persons in the vehicle for free on any express lane that is a high occupancy vehicle lane and for a reduced toll on any express lane that is a toll lane or a high occupancy toll lane. HPTE is not authorized to impose the access fee upon the registration of a vehicle registered for a registration period beginning on or after July 1, 2020, but before July 1, 2022, but, upon the registration of a vehicle for such a registration period, the owner of an eligible plug-in electric motor vehicle may choose to apply for the right to operate the vehicle for free on any express lane that is a high occupancy vehicle lane without regard to the number of persons in the vehicle and for a reduced toll on any express lane that is a toll lane or a high occupancy toll lane.

A plug-in electric motor vehicle is an "eligible plug-in electric motor vehicle" if it is being registered for its 1st, 2nd, or 3rd registration period under the ownership of the same owner and if making the vehicle eligible would not cause the total number of eligible vehicles to exceed a specified cap that increases annually for 5 years until reaching a permanent maximum amount. "Express lane" is defined to include any high occupancy vehicle lane, toll lane, or high occupancy toll lane that HPTE, a private partner of HPTE, or HPTE in conjunction with a private partner of HPTE or the department of transportation (CDOT) operates and maintains or that HPTE designates as an express lane, which currently includes:

- Operating express lanes on Interstate Highway 25 between downtown Denver and 120th Avenue, on Interstate Highway 70 between Idaho Springs and Empire, and on U.S. Highway 36 between Denver and Boulder; and
- Planned express lanes on: (1) Interstate Highway 25 between 120th Avenue and State Highway E-470, Johnstown and Fort Collins, and Monument and Castle Rock; (2) Interstate Highway 70 between Interstate Highway 25 and Chambers Road; and (3)

State Highway C-470 between Interstate Highway 25 and Wadsworth Boulevard.

Each county clerk and recorder, acting as an authorized agent of the department of revenue, is required to collect the access fee, and access fee revenue is credited to the statewide transportation enterprise special revenue fund for use by HPTE. The owner of an eligible plug-in electric motor vehicle may choose not to pay the access fee, but must pay the fee to be authorized to operate the vehicle for free on any express lane that is a high occupancy vehicle lane and for a reduced toll on any express lane that is a toll lane or a high occupancy toll lane, without regard to the number of persons in the vehicle. If the free or reduced toll use of express lanes by eligible plug-in electric motor vehicles is determined to cause a decrease in the level of service for other bona fide users of the express lanes so that CDOT or HPTE is violating or will violate within the next 3 months contractual level of service guarantees or will be unable to satisfy debt service coverage requirements, then CDOT may restrict or eliminate free and reduced toll use of the express lanes by eligible plug-in electric motor vehicles for as long as the violation or inability is expected to continue. CDOT is required to report annually during its "State Measurement for Accountable, Responsive, and Transparent (SMART) Government Act" hearing regarding the actual and projected free and reduced toll use of express lanes by eligible plug-in electric vehicles and any actions that it has taken or expects to take to restrict, limit, or restore such use.

The existing authorization for a limited number of inherently low-emission vehicles or hybrid vehicles to use express lanes without regard to the number of persons in the vehicle and without paying a toll expires for each participating vehicle on the date of the first registration of the vehicle for a registration period that begins on or after July 1, 2022.

The department of revenue and CDOT are required to coordinate to establish electronic processes that:

- Automatically notify HPTE and, if deemed necessary by HPTE, any private partner of HPTE that operates an express lane, when the owner of a plug-in electric motor vehicle pays the access fee so that HPTE, directly or through its private partners, can successfully administer and enforce the conditions of access for eligible plug-in electric motor vehicles to express lanes; and
- Automatically notify each authorized agent when the access fee can or cannot be collected in accordance with the limitation on the number of eligible plug-in electric motor vehicles.

CDOT is authorized to promulgate administrative rules to ensure proper implementation, administration, and enforcement of the

conditions of access for eligible plug-in electric motor vehicles to express lanes.

(Note: This summary applies to this bill as introduced.)

Status: 2/20/2019 Introduced In House - Assigned to Energy & Environment + Appropriations
3/4/2019 House Committee on Energy & Environment Refer Amended to Finance
4/15/2019 House Committee on Finance Postpone Indefinitely

Amendments: Amendments

Bill Version: Pre-Amended

HB19-1231 New Appliance Energy And Water Efficiency Standards

Comment:

Position: **Monitor**

Short Title: New Appliance Energy And Water Efficiency Standards

Sponsors: M. Froelich | C. Kipp / P. Lee | K. Priola

Summary: The bill updates and adopts standards for water efficiency and energy efficiency that apply to a list of consumer and commercial appliances and other products. The standards are based on state standards, federal Energy Star and WaterSense specifications, and industry standards in most cases or, where a standard is not incorporated by reference, the standard is specified by statute.

The standards apply to new products sold in Colorado and are phased in over a period of 3 years, with general service lamps covered beginning in 2020, air compressors and portable air conditioners covered beginning in 2022, and all other listed products covered beginning in 2021. The bill also keeps in place the water efficiency standards on certain products that were added to the Colorado statutes in 2014. The sale of a noncomplying product after the effective date of the applicable standard is punishable through a civil enforcement action by the attorney general, with penalties of up to $2,000 per violation or, in the case of the sale of a noncomplying product to an elderly person, $10,000 per violation.

The executive director of the department of public health and environment is directed to collect and publish the standards that are incorporated by reference. The executive director is also authorized, but not required, to adopt rules incorporating more recent versions of standards or test methods in order to maintain or improve consistency

with other state or federal agency standards, subject to a one-year grace period between adoption and enforcement of any new or amended standards.

(Note: This summary applies to the reengrossed version of this bill as introduced in the second house.)

Status: 3/8/2019 Introduced In House - Assigned to Energy & Environment
3/25/2019 House Committee on Energy & Environment Refer Amended to House Committee of the Whole
3/28/2019 House Second Reading Laid Over Daily - No Amendments
3/29/2019 House Second Reading Laid Over to 04/01/2019 - No Amendments
4/2/2019 House Second Reading Special Order - Laid Over Daily - No Amendments
4/3/2019 House Second Reading Passed with Amendments - Committee, Floor
4/4/2019 House Third Reading Passed - No Amendments
4/5/2019 Introduced In Senate - Assigned to Transportation & Energy
4/23/2019 Senate Committee on Transportation & Energy Refer Amended to Senate Committee of the Whole
4/26/2019 Senate Second Reading Laid Over Daily - No Amendments
4/30/2019 Senate Second Reading Passed with Amendments - Committee
5/1/2019 Senate Third Reading Laid Over Daily - No Amendments
5/2/2019 Senate Third Reading Passed - No Amendments
5/3/2019 House Considered Senate Amendments - Result was to Concur - Repass

Amendments: Amendments

Bill Version: Pre-Amended

HB19-1260 Building Energy Codes

Comment:

Position: **Monitor**

Short Title: Building Energy Codes

Sponsors: C. Kipp | A. Valdez / F. Winter | K. Priola

Summary: The bill requires local jurisdictions to adopt one of the 3 most recent versions of the international energy conservation code at a minimum, upon updating any other building code, and encourages local

jurisdictions to update the Colorado energy office on any changes to the jurisdictions' building and energy codes.

(Note: This summary applies to the reengrossed version of this bill as introduced in the second house.)

Status: 3/20/2019 Introduced In House - Assigned to Energy & Environment
4/11/2019 House Committee on Energy & Environment Refer Unamended to House Committee of the Whole
4/16/2019 House Second Reading Special Order - Passed - No Amendments
4/17/2019 House Third Reading Passed - No Amendments
4/17/2019 Introduced In Senate - Assigned to Transportation & Energy
4/23/2019 Senate Committee on Transportation & Energy Refer Unamended to Senate Committee of the Whole
4/26/2019 Senate Second Reading Passed - No Amendments
4/27/2019 Senate Third Reading Passed - No Amendments

Amendments:

Bill Version: Rerevised

HB19-1261 **Climate Action Plan To Reduce Pollution**

Comment: **CAMU was unsuccessful in attempts to remove either the PUC language or references to municipal utilities in the voluntary clean energy plan portion of the bill.**

Position: **Amend**

Short Title: Climate Action Plan To Reduce Pollution

Sponsors: K. Becker | D. Jackson / F. Winter | A. Williams

Summary: **Section 1** of the bill states that Colorado shall have statewide goals to reduce 2025 greenhouse gas emissions by at least 26%, 2030 greenhouse gas emissions by at least 50%, and 2050 greenhouse gas emissions by at least 90% of the levels of greenhouse gas emissions that existed in 2005.

Section 3 specifies considerations that the air quality control commission is to take into account in implementing policies and promulgating rules to reduce greenhouse gas pollution, including the benefits of compliance and the equitable distribution of those benefits, the costs of compliance, opportunities to incentivize clean energy in transitioning communities, and the potential to enhance the resilience of Colorado's communities and natural resources to climate impacts. The commission will consult with the public utilities

commission with regard to rules that affect the providers of retail electricity in Colorado.

Section 4 appropriates $281,588 from the general fund to the department of public health and environment to implement the bill, of which $93,267 is reappropriated to the department of law.
(Note: This summary applies to the reengrossed version of this bill as introduced in the second house.)

Status:
3/21/2019 Introduced In House - Assigned to Energy & Environment
4/5/2019 House Committee on Energy & Environment Refer Amended to Appropriations
4/9/2019 House Committee on Appropriations Refer Amended to House Committee of the Whole
4/15/2019 House Third Reading Laid Over Daily - No Amendments
4/15/2019 House Second Reading Passed with Amendments - Committee, Floor
4/16/2019 House Third Reading Passed - No Amendments
4/22/2019 Introduced In Senate - Assigned to State, Veterans, & Military Affairs
4/22/2019 Senate Committee on State, Veterans, & Military Affairs Refer Amended to Appropriations
4/24/2019 Senate Committee on Appropriations Refer Unamended to Senate Committee of the Whole
4/26/2019 Senate Second Reading Laid Over Daily - No Amendments
4/30/2019 Senate Second Reading Passed with Amendments - Committee, Floor
5/1/2019 Senate Third Reading Passed - No Amendments
5/1/2019 Senate Third Reading Reconsidered - No Amendments
5/1/2019 Senate Third Reading Passed - No Amendments
5/1/2019 House Considered Senate Amendments - Result was to Concur - Repass

Amendments: Amendments

Bill Version: Pre-Amended

HB19-1313 Electric Utility Plans To Further Reduce Carbon Dioxide Emissions

Comment:

Position: **Monitor**

Short Title: Electric Utility Plans To Further Reduce Carbon Dioxide Emissions

Sponsors: K. Becker | C. Hansen / F. Winter | K. Priola

Summary:

Section 1 of the bill authorizes payments from an existing fund for administrative expenses of the public utilities commission (PUC) to defray the costs incurred by the department of public health and environment and any other state agencies in reviewing clean energy plans submitted under section 3 of the bill.

Section 2 repeals laws that allow an electric utility to own, as rate-based property, new eligible energy resources without competitive bidding if certain conditions are satisfied.

Section 3 supplements the existing renewable energy standards statute by establishing targets for the reduction of carbon dioxide emissions from electricity generation by utilities serving more than 500,000 customers, with the opportunity for other utilities to opt in. The targets are:

- By 2030, an 80% reduction in carbon dioxide emission levels compared to 2005 levels; and
- For 2050 and thereafter, a goal of a 100% reduction in carbon dioxide emission levels.

Section 3 also directs qualifying retail utilities to submit plans to the PUC as part of their ongoing resource acquisition planning process to address the clean energy targets. A clean energy plan must detail the actions and investments the utility intends to undertake, including specifying the new resources and infrastructure proposed to be used; the anticipated effects of the plan on the safety, reliability, and resilience of the overall electric system; the methods proposed for measuring carbon dioxide reductions; and the costs of implementation, which must be reasonable.

The approval process also includes participation by the division of administration within the department of public health and environment regarding the measurement of carbon dioxide emission reductions and predictions as to whether the clean energy plan will achieve the desired reductions.

A utility implementing a clean energy plan may recover its costs of implementation through rates, as approved by the PUC, and own any generating resources and infrastructure necessary to effectuate the plan. The utility is required to use a competitive bidding process to fill the cumulative resource need identified in its next electric resource plan that includes a clean energy plan filed after January 1, 2020.

Each utility that receives approval of a clean energy plan is required to report to the governor, the general assembly, the PUC, and the air quality control commission on a list of matters, including its progress in implementing the plan and in reducing carbon dioxide emissions. To address Colorado's relative lack of seamless integration into the national energy grid, the PUC is directed to open

an investigatory proceeding to evaluate the costs and benefits associated with regional transmission organizations, energy imbalance markets, joint tariffs, and power pools.

Section 4 strengthens an existing provision requiring electric resource acquisition decisions to be made with consideration of "best value" employment metrics and the use of Colorado labor by requiring a utility to obtain and provide to the PUC relevant documentation on these topics, including the availability of apprenticeship programs registered with the United States department of labor.

Section 5 establishes a qualified right for a retail electric utility customer to generate, consume, store, and export to the grid any electricity produced from customer-sited renewable sources, also known as distributed generation.

Section 6 adopts the "Colorado Energy Impact Bond Act" under which electric utilities may finance the retirement of fossil-fuel-powered generation facilities and the transition to renewable energy sources by issuing low-cost corporate securities. These securities, known as Colorado energy impact bonds or "CO-EI bonds," are subject to PUC approval and required to have a rating of at least AA or AA2, must have a scheduled maturity date of 32 years or less, and are repayable through rates as part of the costs of implementing a clean energy plan.
(Note: This summary applies to the reengrossed version of this bill as introduced in the second house.)

Status:
4/5/2019 Introduced In House - Assigned to Health & Insurance
4/17/2019 House Committee on Health & Insurance Refer Amended to Appropriations
4/23/2019 House Committee on Appropriations Refer Amended to House Committee of the Whole
4/25/2019 House Second Reading Special Order - Passed with Amendments - Committee, Floor
4/26/2019 House Third Reading Laid Over Daily - No Amendments
4/27/2019 House Third Reading Passed with Amendments - Floor
5/1/2019 Introduced In Senate - Assigned to State, Veterans, & Military Affairs
5/1/2019 Senate Committee on State, Veterans, & Military Affairs Refer Unamended to Appropriations
5/2/2019 Senate Committee on Appropriations Refer Amended to Senate Committee of the Whole

Amendments: Amendments

Bill Version: Pre-Amended

HB19-1314 **Just Transition From Coal-based Electrical Energy Economy**

Comment:

Position: **Monitor**

Short Title: Just Transition From Coal-based Electrical Energy Economy

Sponsors: K. Becker | R. Galindo / F. Winter | K. Donovan

Summary: The bill creates the just transition office in the division of employment and training in the department of labor and employment. The office, led by a director, will administer the following:

- ★ Benefits to coal transition workers to enable them to support themselves and their families and to access and complete education and training, resulting in being hired for high-quality jobs; and
- ★ Grants to eligible entities in coal transition communities that seek to create a more diversified, equitable, and vibrant economic future for those communities.

The office will begin to award benefits and grants on the earlier of January 1, 2023, or the date, as determined by the director, when sufficient money is available in the just transition cash fund to award just transition benefits or just transition grants, as applicable.

An electric utility that proposes to retire a coal-fueled electric generating facility shall submit to the office a workforce transition plan at least 90 days before the retirement of the facility.

The bill creates a just transition advisory committee to advise the director regarding implementation of the bill.

The bill appropriates $163,010 from the general fund to the department of labor and employment and $1,838 from the general fund to the general assembly for the implementation of the act.

(Note: This summary applies to the reengrossed version of this bill as introduced in the second house.)

Status: 4/5/2019 Introduced In House - Assigned to Business Affairs & Labor
4/10/2019 House Committee on Business Affairs & Labor Refer Amended to Appropriations
4/16/2019 House Committee on Appropriations Refer Amended to Legislative Council
4/16/2019 House Committee on Refer Amended to Legislative Council
4/18/2019 House Committee on Legislative Council Refer

	Unamended to House Committee of the Whole 4/22/2019 House Second Reading Special Order - Passed with Amendments - Committee, Floor 4/23/2019 House Third Reading Passed - No Amendments 4/23/2019 Introduced In Senate - Assigned to State, Veterans, & Military Affairs 4/25/2019 Senate Committee on State, Veterans, & Military Affairs Refer Amended to Appropriations 4/26/2019 Senate Committee on Appropriations Refer Amended to Senate Committee of the Whole 4/29/2019 Senate Second Reading Laid Over Daily - No Amendments 4/30/2019 Senate Second Reading Passed with Amendments - Committee 5/1/2019 Senate Third Reading Laid Over Daily - No Amendments 5/2/2019 Senate Third Reading Passed with Amendments - Floor 5/2/2019 Senate Third Reading Reconsidered - No Amendments 5/2/2019 Senate Third Reading Reconsidered - No Amendments 5/3/2019 House Considered Senate Amendments - Result was to Concur - Repass
Amendments:	Amendments
Bill Version:	Pre-Amended

SB19-062 Limit Agency Rule-making Authority To Amend Rules

Comment:	
Position:	**Monitor**
Short Title:	Limit Agency Rule-making Authority To Amend Rules
Sponsors:	J. Sonnenberg
Summary:	Requires an executive agency to obtain additional statutory rule-making authority to amend or reinterpret an existing rule.
Status:	1/10/2019 Introduced In Senate - Assigned to State, Veterans, & Military Affairs 1/28/2019 Senate Committee on State, Veterans, & Military Affairs Postpone Indefinitely
Amendments:	
Bill Version:	Introduced

SB19-077 Electric Motor Vehicles Public Utility Services

Comment:	**The legislation does not apply to municipal utilities**
Position:	**Monitor**

Short Title:	Electric Motor Vehicles Public Utility Services
Sponsors:	K. Priola | A. Williams / C. Hansen
Summary:	Authorizes investor-owned public utilities to provide EV charging services as regulated or unregulated services and allows cost recovery.
Status:	1/11/2019 Introduced In Senate - Assigned to Business, Labor, & Technology 2/27/2019 Senate Committee on Business, Labor, & Technology Refer Amended to Senate Committee of the Whole 3/4/2019 Senate Second Reading Laid Over Daily - No Amendments 3/5/2019 Senate Second Reading Passed with Amendments - Committee 3/6/2019 Senate Third Reading Laid Over to 03/08/2019 - No Amendments 3/8/2019 Senate Third Reading Passed - No Amendments 3/8/2019 Introduced In House - Assigned to Transportation & Local Government 4/9/2019 House Committee on Transportation & Local Government Refer Amended to House Committee of the Whole 4/12/2019 House Second Reading Laid Over Daily - No Amendments 4/17/2019 House Second Reading Special Order - Passed with Amendments - Committee 4/18/2019 House Third Reading Passed - No Amendments 4/19/2019 Senate Considered House Amendments - Result was to Laid Over Daily 4/26/2019 Senate Considered House Amendments - Result was to Not Concur - Request Conference Committee 4/30/2019 House Consideration of First Conference Committee Report result was to Adopt Committee Report - Repass 4/30/2019 First Conference Committee Result was to Adopt Rerevised w/ Amendments 5/1/2019 Senate Consideration of First Conference Committee Report result was to Adopt Committee Report - Repass
Amendments:	Amendments
Bill Version:	Pre-Amended

SB19-083 Colorado Department Of Public Health And Environment Air Quality Control

Comment:	**This is one of several bills removing obsolete provisions from CDPHE statutes.**
Position:	**Monitor**
Short Title:	

Colorado Department Of Public Health And Environment Air Quality Control

Sponsors: R. Zenzinger / H. McKean

Summary: Eliminates the requirement that the state board of health supervise certain air quality control programs

Status: 1/14/2019 Introduced In Senate - Assigned to Health & Human Services
1/23/2019 Senate Committee on Health & Human Services Refer Unamended - Consent Calendar to Senate Committee of the Whole
1/28/2019 Senate Second Reading Passed - No Amendments
1/29/2019 Senate Third Reading Passed - No Amendments
1/31/2019 Introduced In House - Assigned to Energy & Environment
2/21/2019 House Committee on Energy & Environment Refer Unamended to House Committee of the Whole
2/25/2019 House Second Reading Passed - No Amendments
2/26/2019 House Third Reading Passed - No Amendments
2/27/2019 Signed by the Speaker of the House
2/27/2019 Signed by the President of the Senate
2/28/2019 Sent to the Governor
3/7/2019 Governor Signed

Amendments:

Bill Version: Signed Act

SB19-088 Revised Uniform Unclaimed Property Act

Comment:

Position: **Monitor**

Short Title: Revised Uniform Unclaimed Property Act

Sponsors: B. Gardner / K. Tipper | H. McKean

Summary: **Colorado Commission on Uniform State Laws. Section 1** of the bill enacts the "Revised Uniform Unclaimed Property Act" (act), as adopted by the National Conference of Commissioners on Uniform State Laws in 2016 with Colorado-specific amendments. The act responds to current transactions and practices, in particular electronic records, and seeks to promote uniformity among state laws regarding the disposition of unclaimed property.

The act is subdivided into 15 parts, which are summarized as follows:

★ Part 1 establishes general provisions for the act, including definitions for terms used in the act and authority for the administrator, who is the state treasurer, to make rules related to the act;

- ★ Part 2 establishes standards to determine if property is abandoned. Under the act, property is presumed abandoned if it is unclaimed by its apparent owner after a specified period of time known as the dormancy period. Some of the dormancy periods in the act are shorter than current law. This part also includes a number of sections that are included in current law to exempt property from the act.
- ★ Part 3 establishes priority rules for determining when the state may take custody of property that is presumed abandoned;
- ★ Part 4 requires a holder of property presumed to be abandoned to provide a report to the administrator and to retain certain records;
- ★ Part 5 establishes the notice that the administrator must provide to the apparent owner;
- ★ Part 6 establishes how the administrator takes custody of property after it has been abandoned;
- ★ Part 7 permits the administrator to sell property at a public sale after notice;
- ★ Part 8 relates to the administration of property and keeps the requirement that the proceeds of property sold be deposited in the existing unclaimed property trust fund and the unclaimed property tourism promotion trust fund;
- ★ Part 9 addresses claims to recover property from the administrator and includes existing provisions to allow offsets against the claim for child support; judicial restitution, fines, fees, or surcharges; and delinquent taxes and claims of the state;
- ★ Part 10 permits the administrator to request a report from a person and to examine records to determine compliance with the act;
- ★ Part 11 provides a holder with the right to appeal the administrator's determination concerning the holder's liability to deliver property or payment to the state;
- ★ Part 12 establishes penalties for a holder that fails to comply with the act;
- ★ Part 13 governs agreements between an apparent owner and a person commonly known as a "finder" who locates and recovers abandoned property on behalf of the owner;
- ★ Part 14 addresses the confidentiality and security of information related to the abandoned property; and
- ★ Part 15 includes miscellaneous provisions relating to the uniformity of construction, electronic signatures, a local government opt-out, and transitional interpretation.

Colorado-specific sections of the prior version of the act, known as the "Unclaimed Property Act", are retained and indicated by their former statutory section numbers.

Sections 2 through 21 make conforming amendments.
(Note: This summary applies to the reengrossed version of this bill as introduced in the second house.)

Status: 1/23/2019 Introduced In Senate - Assigned to Business, Labor, & Technology
2/20/2019 Senate Committee on Business, Labor, & Technology Refer Amended to Senate Committee of the Whole
2/25/2019 Senate Second Reading Laid Over to 02/27/2019 - No Amendments
2/27/2019 Senate Second Reading Passed with Amendments - Committee, Floor
2/28/2019 Senate Third Reading Passed with Amendments - Floor
2/28/2019 Introduced In House - Assigned to Business Affairs & Labor
3/19/2019 House Committee on Business Affairs & Labor Refer Amended to House Committee of the Whole
3/21/2019 House Second Reading Laid Over Daily - No Amendments
3/22/2019 House Second Reading Passed with Amendments - Committee
3/25/2019 House Third Reading Passed - No Amendments
3/26/2019 Senate Considered House Amendments - Result was to Concur - Repass
4/9/2019 Signed by the President of the Senate
4/10/2019 Sent to the Governor
4/10/2019 Signed by the Speaker of the House
4/16/2019 Governor Signed

Amendments: Amendments

Bill Version: Signed Act

SB19-096 Collect Long-term Climate Change Data

Comment: **Rule making langue clarified by amendment.**

Position: **Monitor**

Short Title: Collect Long-term Climate Change Data

Sponsors: K. Donovan / C. Hansen

Summary: Requires the air quality control commission in the department of public health and environment to collect greenhouse gas emissions data from greenhouse gas-emitting entities, report on the data, including a forecast of future emissions, and propose a draft rule to address the emissions by July 1, 2020.

Status: 1/23/2019 Introduced In Senate - Assigned to Transportation & Energy

	3/21/2019 Senate Committee on Transportation & Energy Refer Amended to Appropriations 4/16/2019 Senate Committee on Appropriations Refer Amended to Senate Committee of the Whole 4/18/2019 Senate Second Reading Passed with Amendments - Committee 4/19/2019 Senate Third Reading Laid Over Daily - No Amendments 4/22/2019 Senate Third Reading Passed - No Amendments 4/24/2019 Introduced In House - Assigned to State, Veterans, & Military Affairs 4/25/2019 House Committee on State, Veterans, & Military Affairs Refer Amended to Appropriations 5/1/2019 House Committee on Appropriations Refer Amended to House Committee of the Whole 5/1/2019 House Second Reading Special Order - Passed with Amendments - Committee, Floor 5/2/2019 House Third Reading Laid Over Daily - No Amendments 5/2/2019 House Third Reading Laid Over Daily - No Amendments 5/3/2019 House Third Reading Passed with Amendments - Floor 5/3/2019 Senate Considered House Amendments - Result was to Concur - Repass
Amendments:	Amendments
Bill Version:	Pre-Amended

SB19-107 Broadband Infrastructure Installation

Comment:	**Municipal Utilities removed from bill definitions**
Position:	**Monitor**
Short Title:	Broadband Infrastructure Installation
Sponsors:	K. Donovan / D. Roberts
Summary:	Authorizes an electric utility or other electricity supplier to install and maintain above-ground broadband internet service infrastructure for internal use, for external use in providing broadband internet service, or for lease of any excess capacity to a broadband internet service provider.
Status:	1/29/2019 Introduced In Senate - Assigned to Business, Labor, & Technology + Local Government 4/15/2019 Senate Committee on Business, Labor, & Technology Refer Amended to Local Government 4/16/2019 Senate Committee on Local Government Refer Unamended to Senate Committee of the Whole 4/18/2019 Senate Second Reading Laid Over Daily - No Amendments 4/19/2019 Senate Second Reading Laid Over Daily - No Amendments

4/23/2019 Senate Second Reading Passed with Amendments - Committee, Floor
4/24/2019 Senate Third Reading Passed - No Amendments
4/24/2019 Senate Third Reading Reconsidered - No Amendments
4/24/2019 Senate Third Reading Passed - No Amendments
4/24/2019 Introduced In House - Assigned to Rural Affairs & Agriculture
4/26/2019 House Committee on Rural Affairs & Agriculture Refer Amended to House Committee of the Whole
4/27/2019 House Second Reading Special Order - Passed with Amendments - Committee
4/29/2019 House Third Reading Passed - No Amendments
4/30/2019 Senate Considered House Amendments - Result was to Concur - Repass

Amendments: Amendments

Bill Version: Pre-Amended

SB19-138 **Bond Requirements For Public Projects Using Private Financing**

Comment:

Position: **Monitor**

Short Title: Bond Requirements For Public Projects Using Private Financing

Sponsors: F. Winter | K. Priola / S. Bird

Summary: Under current law, when a person, company, firm, corporation, or contractor (contractor) enters into a contract with a county, municipality, school district, or, in some instances, any other political subdivision of the state to perform work in connection with a project that has specified characteristics, the contractor is required to execute performance bonds and payment bonds.

The bill specifies that some of these bonding requirements apply to certain construction contracts situated or located on publicly owned property using public or private money or public or private financing.

(Note: This summary applies to the reengrossed version of this bill as introduced in the second house.)

Status: 2/12/2019 Introduced In Senate - Assigned to Finance
2/28/2019 Senate Committee on Finance Refer Amended to Senate Committee of the Whole
3/5/2019 Senate Second Reading Passed with Amendments - Committee

3/6/2019 Senate Third Reading Passed - No Amendments
3/8/2019 Introduced In House - Assigned to Finance
3/21/2019 House Committee on Finance Refer Amended to House Committee of the Whole
3/25/2019 House Second Reading Laid Over Daily - No Amendments
3/26/2019 House Second Reading Laid Over to 03/27/2019 - No Amendments
3/28/2019 House Second Reading Passed with Amendments - Committee
3/29/2019 House Third Reading Passed - No Amendments
4/1/2019 Senate Considered House Amendments - Result was to Concur - Repass
4/9/2019 Signed by the President of the Senate
4/10/2019 Sent to the Governor
4/10/2019 Signed by the Speaker of the House
4/16/2019 Governor Signed

Amendments: Amendments

Bill Version: Signed Act

SB19-156 Sunset State Electrical Board

Comment:

Position: **Monitor**

Short Title: Sunset State Electrical Board

Sponsors: R. Rodriguez / T. Sullivan

Summary: **Sunset Process - Senate Business, Labor, and Technology Committee.** The bill implements the recommendations of the department of regulatory agencies' (department) sunset review and report on the state electrical board by:

- Continuing the functions of the board for 13 years, until 2032 (**sections 1 and 2** of the bill);
- Repealing the limitations on the fees that local jurisdictions may charge (**section 7**);
- Clarifying that cables and systems utilized for conveying power are not exempt from regulation when they are part of a building's electrical system (**section 7**);
- Defining "direct supervision", with regard to the oversight of apprentices, and "supervision" of electrical work (**sections 3, 6, and 9**);
- Repealing the requirement that the board notify an applicant that he or she is qualified to take a licensure examination (**section 5**);

- ★ Directing the governor to consider that at least one of the 4 members of the board who must be a master or journeyman electrician should be an electrician who works primarily in the residential sector (**section 4**);
- ★ Clarifying that traffic signals are exempt from regulation (**section 7**);
- ★ Repealing redundant language regarding an inspection exemption and obsolete language regarding providing copies of the electrical code and standards (**section 7**); and
- ★ Subjecting to regulation the alteration of existing facilities that are otherwise exempt from regulation (**section 7**).

Section 8 requires state electrical inspectors or inspectors employed by an incorporated town or city, county, city and county, or qualified state institution of higher education (entity) to develop standard procedures to advise inspectors on how to conduct a contemporaneous review to ensure compliance. Each entity must post its standard procedures on its public website and provide the director of the division of professions and occupations within the department of regulatory agencies with a link to the web page on which the standard procedures have been posted or, if the entity does not have a website, provide its current procedures to the director for posting on the department's website. The board can issue a cease-and-desist order to an entity that is conducting inspections that do not comply with statutory requirements.

Sections 10 through 17 make conforming amendments to harmonize the bill with House Bill 19-1172, the bill to recodify and reorganize title 12.
(Note: This summary applies to the reengrossed version of this bill as introduced in the second house.)

Status:

2/21/2019 Introduced In Senate - Assigned to Business, Labor, & Technology
3/20/2019 Senate Committee on Business, Labor, & Technology Refer Amended to Finance
4/11/2019 Senate Committee on Finance Refer Amended to Appropriations
4/16/2019 Senate Committee on Appropriations Refer Unamended to Senate Committee of the Whole
4/18/2019 Senate Second Reading Passed with Amendments - Committee
4/19/2019 Senate Third Reading Laid Over Daily - No Amendments
4/22/2019 Senate Third Reading Passed - No Amendments
4/22/2019 Introduced In House - Assigned to Business Affairs & Labor
4/24/2019 House Committee on Business Affairs & Labor Refer Amended to Finance
4/26/2019 House Committee on Finance Refer Amended to

Appropriations
4/29/2019 House Committee on Appropriations Refer Unamended to House Committee of the Whole
4/29/2019 House Second Reading Special Order - Passed with Amendments - Committee
4/30/2019 House Third Reading Passed - No Amendments
5/1/2019 Senate Considered House Amendments - Result was to Concur - Repass

Amendments: Amendments

Bill Version: Pre-Amended

SB19-236 **Sunset Public Utilities Commission**

Comment: **HB19-1037, HB19-1313, and the DG Bill of rights were all rolled into the PUC sunset bill. Amendment added to clarify that a "qualifying retail utility" does not include a municipally owned utility.**

Position: **Monitor**

Short Title: Sunset Public Utilities Commission

Sponsors: L. Garcia | S. Fenberg / C. Hansen | K. Becker

Summary: **Sunset Process - Senate Transportation and Energy Committee.** The bill implements the recommendations of the department of regulatory agencies' sunset review and report on the public utilities commission (commission) by:

- Authorizing the commission to promulgate rules to delegate routine, administrative transportation matters to staff and clarifying that the commission provides initial review of each case submitted for adjudication and determines whether it wishes to retain the case or to assign it to an administrative law judge or to an individual commissioner (**section 10** of the bill);
- Providing for alternate forms of communication that a public utility may utilize to notify its customers of rate changes, including text message and e-mail, and requiring the public utility to post notice of the rate change on its public website, including a reference to the docket numbers of relevant rules or adjudicatory matters. (**section 6**);
- Transferring the administration of the legal services offset fund from the department of law to the department of regulatory agencies (**section 11**);
- Making technical changes regarding criminal history record checks and telecommunications (**sections 13 and 15 through 18**);

★ Repealing a requirement that an electric utility, as part of the electric utility's plan for acquisition of renewable resources, purchase a certain amount of energy from community solar gardens in the years 2011 through 2013, but delaying the repeal until 2043 to keep the legislation in place until contracts entered into pursuant to the requirement have likely all expired (**section 4**);

★ Repealing the requirement that the commission, in considering electric utilities' proposals for generation acquisition, give consideration to proposals to propose, fund, and construct integrated gasification combined cycle generation facilities (**section 3**); and

★ Clarifying that the commission may impose a civil penalty for a violation of railroad crossing safety regulations (**section 9**).

The bill also:

★ Directs the commission to promulgate rules to require an investor-owned utility to file with the commission, for the commission's approval, a distribution system plan regarding the utility's anticipated distribution system investments (**section 5**);

★ Requires an investor-owned utility, when submitting a filing to the commission that includes a proposed retirement of an electric generating facility, to include in the filing a workforce transition plan that provides estimates of workforce transitions that will occur as a result of retiring the electric generating facility (**section 5**);

★ Directs the commission to conduct an investigation of financial performance-based incentives and performance-based metric tracking to identify mechanisms for aligning utility operations and investments with various public benefit goals, including safety, cost efficiency, and emissions reduction. The commission must report the findings of its investigation to the general assembly 18 months after the bill's passage (**section 7**);

★ Requires the commission to open a nonadjudicatory proceeding to conduct a survey of public utility retail rates and to consider recommendations for providing rate relief in geographic areas with retail rates that are materially greater than the state average (**section 7**);

★ Directs the commission to evaluate the cost of carbon dioxide emissions in certain proceedings related to a public utility subject to the commission's jurisdiction and to promulgate rules to require those public utilities, when submitting filings to include the cost of carbon dioxide emissions related to the evaluation of electric generation and heating resources. Starting in 2020, the commission is required to establish a base cost of carbon dioxide emissions in an amount not less than $46 and shall modify the cost thereafter based on escalation rates

established by a federal interagency working group; (**section 8**); and

★ Authorizes the commission to regulate vehicle booting companies, which are private entities in the business of immobilizing motor vehicles through use of a boot, through issuance of permits and enforcement mechanisms including inspections, imposition of a civil penalty, and revocation of a permit (**sections 12 and 14**).

The bill continues the functions of the commission for 7 years, until 2026 (**sections 1 and 2**). The bill appropriates $467,034 for state fiscal year 2019-20 to the department of regulatory agencies for use by the public utilities commission for personal services, operating expenses, and the purchase of legal services (**section 21**).
(Note: This summary applies to the reengrossed version of this bill as introduced in the second house.)

Status:
4/9/2019 Introduced In Senate - Assigned to Transportation & Energy
4/16/2019 Senate Committee on Transportation & Energy Refer Amended to Finance
4/18/2019 Senate Committee on Finance Refer Unamended to Appropriations
4/19/2019 Senate Committee on Appropriations Refer Amended to Senate Committee of the Whole
4/23/2019 Senate Second Reading Passed with Amendments - Committee, Floor
4/24/2019 Senate Third Reading Passed - No Amendments
4/24/2019 Introduced In House - Assigned to State, Veterans, & Military Affairs
4/30/2019 House Committee on State, Veterans, & Military Affairs Refer Amended to Finance
5/1/2019 House Committee on Finance Refer Amended to Appropriations
5/1/2019 House Committee on Appropriations Refer Amended to House Committee of the Whole
5/2/2019 House Second Reading Special Order - Passed with Amendments - Committee, Floor
5/3/2019 House Third Reading Passed with Amendments - Floor
5/3/2019 Senate Considered House Amendments - Result was to Concur - Repass

Amendments: Amendments

Bill Version: Pre-Amended

SB19-250 Limit Tiered Rates Electric Utilities

Comment:

Position:	**Monitor**
Short Title:	Limit Tiered Rates Electric Utilities
Sponsors:	L. Garcia | R. Scott / D. Esgar | J. Rich
Summary:	Current law allows heat, light, gas, water, power, and telephone utilities to establish a graduated scale of charges known as tiered rates. The bill directs the legislative investor-owned utility review interim study committee to study the effects of tiered electric rates and allows the committee to hold 4 meetings during the 2019 interim. *(Note: This summary applies to the reengrossed version of this bill as introduced in the second house.)*
Status:	4/17/2019 Introduced In Senate - Assigned to State, Veterans, & Military Affairs 4/22/2019 Senate Committee on State, Veterans, & Military Affairs Refer Unamended to Senate Committee of the Whole 4/24/2019 Senate Second Reading Laid Over Daily - No Amendments 5/1/2019 Senate Second Reading Passed with Amendments - Floor 5/2/2019 Senate Third Reading Passed - No Amendments 5/2/2019 Senate Third Reading Passed - No Amendments 5/3/2019 Introduced In House - Assigned to
Amendments:	Amendments
Bill Version:	Reengrossed

LOVELAND UTILITIES COMMISSION

AGENDA ITEM: 3
MEETING DATE: 5/15/2019
SUBMITTED BY: Ryan Van Pelt
STAFF TITLE: Civil Engineer II

ITEM TITLE:

Water Legislative Update

DESCRIPTION:

This item is intended to give a brief update on water-related legislation being contemplated by the Colorado General Assembly. Loveland Water and Power relies primarily on the Colorado Water Congress (CWC) for information on water-related legislation.

SUMMARY:

The First Regular Session of the 72nd Colorado General Assembly ended on May 3, 2019. The Colorado Water Congress, through its State Affairs Committee, tracks Colorado state house and senate bills related to water. This committee meets each Monday morning during the legislative session. After introduction of a bill it is covered at the next committee meeting to provide members an opportunity to learn about it. Usually, this committee votes on whether to take a position on the bill at the following State Affairs Committee meeting. The voting may be delayed another week if more time is needed on a bill. For CWC to take a position on a bill, the bill must have at least a 2/3 vote from the State Affairs Committee. Once CWC takes a position, it then advocates on behalf of its members before policy makers. Of the state bills that CWC takes a position, their success rate in either killing bills that are opposed or passing bills that are supported is eight-five percent.

While the state legislature is in session, each month in the LUC packet a Bill Summary Sheet (See Attachment A) gives a summary of each bill being tracked by CWC and a Bill Status Sheet (See attachment B) that shows how far along each bill has progressed. Once a bill is killed in a committee or lost in a floor vote, it is removed from this list. Several bills passed in late March and in April. Bills that **passed** that may be of interest to water providers in Colorado are listed below:

> HOUSE BILL 19-1050 Encourage Use of Xeriscape In Common Areas: Concerns the promotion of water-efficient landscaping on property subject to management by local supervisory entities.
>
> HOUSE BILL 19-1082 Water Rights Easements: Concerns the rights of water rights easement holders. The bill clarifies that water rights easement holders may maintain, repair, and improve their easement.

The Colorado Water Congress, through its Federal Affairs Committee, provides the principal voice of Colorado's water community on federal issues that may affect Colorado or that are important to its members. The Federal Affairs Committee works closing with the National Water Resource Association (NWRA), a federation of state water organizations concerned with appropriate management, conservation and use of water resources. In the Federal Affairs section of the CWC website it lists a brief description of some key federal legislative items they are tracking (see attachment C).

Please visit www.cowatercongress.org if you would like additional information regarding federal or state bills related to water and www.cml.org for state and federal bills related to municipal cities and towns.

RECOMMENDATION:

Information item only. No action required.

ATTACHMENTS:

- Attachment A: Colorado Water Bill Summary
- Attachment B: CWC, State Affairs Committee, Water Bill Status Sheet (5-1-2019)
- Attachment C: CWC, 2019 Federal Priorities

Attachment A

2019 Colorado Water Bill Summary

HOUSE BILL 19-1006 Wildfire Mitigation Wildland-urban Interface Areas: Concerning measures to mitigate the effects of wildfires within wildland-urban interface areas, and, in connection therewith, creating a state grant program to promote forest management fuels reduction projects in such areas.
CWC Position: Support
Bill Summary: Wildlife Matters Review Committee. The bill creates a state grant program to be administered by the Colorado state forest service (forest service) to fund proactive forest management fuels reduction projects to reduce the impacts to life, property, and critical infrastructure caused by wildfires. To be eligible for a grant award, a grant recipient must be any one of a group of individual landowners as specified in the bill whose real property that is the subject of a grant application is located within a land area that is covered by a community wildfire protection plan. The bill specifies requirements pertaining to the evaluation of grant proposals. The forest service is to select the proposals that will receive funding, administer the grant program, and develop procedures by which applicants are to apply for grants. The bill imposes a monetary limit on the amount of a grant to be awarded and also requires a grant applicant to demonstrate an available amount of matching funds to be awarded a grant. The bill creates the forest management fuels reduction projects grant program cash fund in the state treasury. The bill requires the forest service to report annually to the general assembly on the number, location, and benefits of all projects for which a grant award is made.

HOUSE BILL 19-1015 Recreation of The Colorado Water Institute: Concerning the recreation of the Colorado Water Institute.
CWC Position: Support
Bill Summary: In the Colorado Revised Statutes, the bill will recreate and reenact, with amendments, part 8 of article 31 of title 23, Sections 801, 802, and 803.

HOUSE BILL 19-1026 Parks and Wildlife Violations of Law: Concerning fines assessed for violations of laws administered by the Division of Parks and Wildlife.
CWC Position: Conditionally Support
Bill Summary: With regard to fines imposed for violations of laws enforced by the division of parks and wildlife in the department of natural resources (division), the bill changes the amount of certain fines and modifies the disposition of money collected from fines.

Section 1 of the bill adds a nonstatutory short title.

Section 2 makes legislative findings.

HOUSE BILL 19-1029 Republican River Water Conservation District: Concerning the Republican River Water Conservation District, and, in connection therewith, expanding the boundaries of the district and adjusting the meeting schedule of the district's board of directors.
CWC Position: Support
Bill Summary: Water Resource Review Committee. The boundaries of the Republican river water conservation district are currently established by statute as certain counties and portions of counties that are within the Republican river basin. The bill expands the boundaries by including the district areas where groundwater pumping depletes the flow of the Republican river as contemplated by applicable United States supreme court case law. The composition of the district's board of directors is adjusted accordingly.

Current law requires the Republican river water conservation district board of directors to conduct regular quarterly meetings in January, April, July, and October. The bill changes these months to February, May, August, and November.

HOUSE BILL 19-1050 Encourage Use of Xeriscape In Common Areas: Concerning the promotion of water-efficient landscaping on property subject to management by local supervisory entities.
CWC Position: Conditionally Support
Bill Summary: Senate Local Government Committee.

Section 1 of the bill augments an existing law that establishes the right of unit owners in common interest communities to use water-efficient landscaping, subject to reasonable aesthetic standards, by specifically extending the same policy to common areas under the control of the community's governing board.

Sections 2 and 3 extend existing water conservation requirements, currently applicable only to certain public entities that supply water at retail and their customers, to property management districts and other special districts that manage areas of parkland and open space.

HOUSE BILL 19-1082 Water Rights Easements: Concerning the rights of a water rights easement holder.
CWC Position: Support
Bill Summary: Senate Agricultural & Natural Resources Committee. The bill clarifies that water rights easement holders may maintain, repair, and improve their easement.

SECTION 1. In Colorado Revised Statutes, **amend**1 37-86-103 as follows:

37-86-103. Extent of right-of-way. Such right-of-way shall extend only to a ditch, dike, cutting, pipeline, or other structure sufficient for the purpose required. Unless expressly inconsistent with the terms upon which the right-of-way was created, a ditch right-of-way includes the right to construct, operate, clean, maintain, repair, and replace the ditch, to improve the efficiency of the ditch, including by lining or piping the ditch, and to enter onto the burdened property for such purposes, with access to the ditch banks, as the exigencies then existing may require, for all reasonable and necessary purposes related to the ditch.

SECTION 2. Act subject to petition - effective date. This act takes effect at 12:01 a.m. on the day following the expiration of the ninety-day period after final adjournment of the general assembly (August 2, 2019, if adjournment sine die is on May 3, 2019); except that, if a referendum petition is filed pursuant to section 1 (3) of article V of the state constitution against this act or an item, section, or part of this act within such period, then the act, item, section, or part will not take effect unless approved by the people at the general election to be held in November 2020 and, in such case, will take effect on the date of the official declaration of the vote thereon by the governor.

SENATE BILL 19-096 Colorado Right to Rest: Concerning the creation of the "Colorado Right to Rest act".
CWC Position: Monitor
Bill Summary: The bill creates the "Colorado Right to Rest Act", which establishes basic rights for people experiencing homelessness, including but not limited to the right to rest in public spaces, to shelter themselves from the elements, to eat or accept food in any public space where food is not prohibited, to occupy a legally parked vehicle, and to have a reasonable expectation of privacy of their property.

HOUSE BILL 19-1108 Nonresidential Electors and Special Districts: Concerning measures to expand the ability of nonresident electors to participate in the governance of special districts, and, in connection therewith, allowing nonresident electors who own taxable property within the special district to vote in special district elections and allowing such electors to serve on special district boards in a nonvoting capacity.
CWC Position: Oppose
Bill Summary: This bill expands the definition of eligible elector and allows individuals who do not reside in Colorado to vote in a special district election if they own property within the district. It increases state and local government workload on an ongoing basis.

HOUSE BILL 19-1113 Protect Water Quality Adverse Mining Impacts: Concerning the protection of water quality from adverse impacts caused by mineral mining.
CWC Position: Support
Bill Summary: Current law does not address reliance on perpetual water treatment as the means to minimize impacts to water quality in a reclamation plan for a mining operation. **Section 1** of the bill requires most reclamation plans to demonstrate, by substantial evidence, an end date for any water quality treatment necessary to ensure compliance with applicable water quality standards.

Current law allows a mining permittee to submit an audited financial statement as proof that the operator has sufficient funds to meet its reclamation liabilities in lieu of a bond or other financial assurance. **Section 2** eliminates this self-bonding option and also requires that all reclamation bonds include financial assurances in an amount sufficient to protect water quality, including costs for any necessary treatment and monitoring costs.

HOUSE BILL 19-1200 Reclaimed Domestic Wastewater Point of Compliance: Concerning the point of compliance related to the treatment process involved in treating reclaimed domestic wastewater for indoor nonpotable uses within a building where the general public can access plumbing fixtures that are used to deliver the reclaimed domestic wastewater.
CWC Position: Support
Bill Summary: The bill authorizes the Water Quality Control Commission (WQCC) within the Colorado Department of Public Health and Environment to adopt rules related to the point of compliance for the disinfection of reclaimed wastewater that is used for indoor nonpotable uses. The point of compliance must be determined to protect public health and established at a single location on the occupied premises where the water is delivered and before the water is distributed.

HOUSE BILL 19-1213 Urban Drainage Flood Control District Director Compensation: Concerning the compensation payable to a member of a board of directors of an urban drainage and flood control district.
CWC Position: Monitor
Bill Summary: Under current law, members of the board of directors (board members) of the Urban Drainage and Flood Control District (UDFCD) receive compensation that cannot exceed $1,200 per year, or $75 per meeting attended. This bill increases these amounts to not exceed $2,400 per year, and $100 per meeting, which is the same amounts provided under current law for other special district board members.

HOUSE BILL 19-1218 Loaned Water for Instream Flows to Improve Environment: Concerning the Colorado Water Conservation Board's authority to use water that a water right owner voluntarily loans to the board for instream flow purposes.
CWC Position: N/A
Bill Summary: Under current law, the Colorado water conservation board (board), subject to procedural requirements established to prevent injury to water rights or decreed conditional water rights, may use loaned water for instream flows if the loaned water is used for preserving the natural environment of a stream reach that is subject to a decreed instream flow water right held by the board. The bill expands the number of years within a 10-year period that a loan may be exercised from 3 years to 5 years and allows a loan to be renewed for up to 2 additional 10-year periods. The bill also expands the board's ability to use loaned water for instream flows to allow loans to:

1. Improve the natural environment to a reasonable degree pursuant to a decreed instream flow water right held by the board; or
2. Preserve or improve the natural environment to a reasonable degree for a stream reach for which the board does not hold a decreed instream flow water right.

In considering whether to accept one of the new types of loans authorized by the bill, the board must evaluate the proposed loan based on a biological analysis performed by the division of parks

and wildlife. The board is required to promulgate rules regarding the necessary steps for reviewing and accepting such a loan.

HOUSE BILL 19-1231 New Appliance Energy And Water Efficiency Standards: Concerning efficiency standards for equipment sold in Colorado, and, in connection therewith, requiring certain appliances, plumbing fixtures, and other products sold for residential or commercial use to meet energy efficiency and water efficiency standards.
CWC Position: Support
Bill Summary: This bill adopts updated water and energy efficiency standards for certain consumer and commercial products and requires the Department of Public Health and Environment to publish the standards on its website or in hard copy form. The standards are phased-in over a three-year period and apply to new products sold or installed in the state. The sale of a noncomplying product after the effective date of the applicable standard is defined as a deceptive trace practice under the Colorado Consumer Protection Act.

HOUSE BILL 19-1247 Study Agricultural Applications: Concerning a study by the commissioner of agriculture on the potential applications for blockchain technology in agricultural operations
CWC Position: N/A
Bill Summary: The bill authorizes the Commissioner of Agriculture to appoint and convene an advisory group to study potential applications for blockchain technology in agricultural operations. The bill will increase state expenditures for FY 2019-20 only

HOUSE BILL 19-1259 Species Conservation Trust: Concerning support for species conservation trust fund projects, and, in connection therewith, making transfers to and appropriations from the species conservation trust fund for purposes recommended by the department of natural resources.
CWC Position: Support
Bill Summary: The bill clarifies the authority of the Colorado Water Conservation Board (CWCB) in the Department of Natural Resources to augment stream flows with water that has been previously decreed for augmentation in order to preserve or improve the natural environment, without requiring a further change of the water right.

HOUSE BILL 19-1271 Augmentation of Instream Flows: Concerning a clarification of the authority of the Colorado Water Conservation Board to augment stream flows with acquired water rights that have been previously decreed for augmentation use.
CWC Position: N/A
Bill Summary: The bill clarifies the authority of the Colorado Water Conservation Board (CWCB) in the Department of Natural Resources to augment stream flows with water that has been previously decreed for augmentation in order to preserve or improve the natural environment, without requiring a further change of the water right.

HOUSE BILL 19-1279 Protect Public Health Firefighter Safety Regulation PFAS Polyfluoroalkyl Substances: Concerning the use of perfluoroalkyl and polyfluoroalkyl substances.
CWC Position: Support
Bill Summary: The bill prohibits the use of class B firefighting foam that contains intentionally added perfluoroalkyl and polyfluoroalkyl (PFAS) substances for training purposes and includes civil penalties. It requires the Department of Public Health and Environment to survey fire departments about issues related to PFAS foam. It increases state revenue and expenditures on an ongoing basis.

HOUSE BILL 19-1303 Protect Public Health Firefighter Safety Regulation PFAS Polyfluoroalkyl Substances: concerning a grant of immunity from liability for a landowner related to the landowner's

failure to warn against a known dangerous condition on the landowner's land when the landowner has granted a person access to use the land for recreational purposes without charging the person.
CWC Position: Deliberating
Bill Summary: Under current law, a landowner is not liable for any injuries suffered by a person that was granted permission to use their land for recreational purposes without charge; except that a landowner is liable for willful or malicious failure to warn against a known dangerous condition. The bill removes the exception.

HOUSE BILL 19-1327 Authorize And Tax Sports Betting Refer Under Taxpayers' Bill Of Rights: Concerning sports betting, and, in connection therewith, submitting to the registered electors of the state of Colorado a ballot measure authorizing the collection of a tax on the net proceeds of sports betting through licensed casinos, directing the revenues generated through collection of the sports betting tax to specified public purposes, including the state water plan through creation of the water plan implementation cash fund, and making an appropriation.
CWC Position: Support
Bill Summary: Conditional upon voter approval, this bill decriminalizes sports betting and places it under the authority of the Division of Gaming in the Department of Revenue and the Colorado Limited Gaming Control Commission (limited gaming commission). Both in-person and online bets must be placed in Colorado and are limited to people 21 years of age or older.

SENATE BILL 19-016 Severance Tax Operational Fund Distribution Methodology: Concerning the methodology to distribute money in the severance tax operational fund after core departmental programs are funded without changing the transfers to the Natural Resources and Energy Grant Programs.
CWC Position: Support
Bill Summary: Water Resources Review Committee. Money in the severance tax operational fund (operational fund) is primarily used for 2 purposes.

The general assembly annually appropriates money from the operational fund for several core departmental programs, which were previously described as "tier-one programs". If money remains after these appropriations and after a reserve requirement for the core departmental programs is satisfied, then the state treasurer transfers money to an array of funds that support natural resources and energy grant programs, which were previously described as "tier-two programs".

There is also a requirement that the reserve include an amount equal to 15% of the maximum transfers to natural resources and energy grant programs required by law, and this reserve is used for the transfers, if necessary.
The bill changes the distribution of the money in the operational fund as follows:

! Separates the reserve into the core reserve and the grant program reserve, while maintaining the overall purpose of each reserve;

! Increases the maximum grant program reserve to 100% of the maximum transfers to the natural resources and energy grant programs required by law, which currently is equal to $36,378,072;

! Requires the state treasurer to make the transfers to the natural resources and energy grant programs on August 15 after a fiscal year and to base the transfers on actual revenue as opposed to estimated revenue. Money from the grant program reserve may be used for these transfers; and

! If all of the appropriations and transfers have been made and both reserves are full, then the state treasurer is required to transfer any money remaining in the operational fund to the severance tax perpetual base fund.

SENATE BILL 19-037 Wildfire Mitigation: Concerning measures to mitigate wildfires, and, in connection therewith, permitting county personnel to enter land owned by the federal or state government to remove wildfire fuel sources and appropriating money for the use of the Forest Restoration and Wildfire Risk Mitigation Grant Program.

CWC Position: Monitor

Bill Summary: In connection with any land area that is owned by the federal or state government that is located either within the territorial boundaries of a county or outside of but within 5 miles of the territorial boundaries of a county, where a supply of wildfire fuel materials exists on the land that is sufficiently concentrated posing a substantial threat of causing or aggravating a wildfire in such area, or where the federal or state government has failed to create a defensible space on such land to reduce the potential for damage from a wildfire, **section 1** of the bill permits the board of county commissioners of any county to use persons employed by the county or to contract with for-profit or not-for-profit organizations or entities to supply persons able to enter the federal or state land for the sole purpose of removing such fuel materials or creating such defensible space.

Under the bill, a person employed by or contracting with the county is not liable for any damages caused by any conduct he or she undertakes in accordance with this authority unless the person's conduct was due to willful misconduct, gross negligence, or bad faith.

Section 2 appropriates $10 million for the 2019-20 state fiscal year, from the general fund to the department of higher education for allocation to the Colorado state university system to be used for the forest restoration and wildfire mitigation grant program.

SENATE BILL 19-181 Protect Public Welfare Oil and Gas Operations: Concerning additional public welfare protections regarding the conduct of oil and gas operations.

CWC Position: N/A

Bill Summary: The bill expands the regulatory charge of the Department of Natural Resources related to oil and gas production, and allows local governments to also regulate oil and gas operations within their jurisdictions. The bill increases state government revenue and expenditures and may also impact local government revenue and expenditures on an ongoing basis.

SENATE BILL 19-184 Authority Colorado Water Institute Study Blockchain Technology: Concerning a grant of authority to the Colorado Water Institute to study potential uses of blockchain technology

CWC Position: Support

Bill Summary: The bill directs the Colorado water institute at Colorado state university to:

1. Study the potential uses of blockchain technology to manage a database of water rights, to facilitate the establishment or operation of water markets or water banks, and for any other useful purpose in the administration of the institute's powers and duties; and
2. Report the results to the general assembly.

SENATE BILL 19-186 Expand Agricultural Chemical Management Program Protect Surface Water: Concerning the expansion of agricultural chemical management plans to protect surface water.

CWC Position: Support

Bill Summary: This bill expands the Commissioner of Agriculture's responsibility to prevent or remedy the introduction of agricultural chemicals into groundwater to include protection of all state waters. The bill increases state revenue and expenditures on an ongoing basis.

SENATE BILL 19-212 Appropriation General Fund Implement State Water Plan: - Concerning general fund support to implement the state water plan, and, in connection therewith, making an appropriation.

CWC Position: Support

Bill Summary: The bill codifies the Water Plan Implementation Grant Program in the Department of Natural Resources and makes an appropriation to the program

SENATE BILL 19-221 Appropriation General Fund Implement State Water Plan: - Concerning the funding of Colorado water conservation board projects, and, in connection therewith, making an appropriation.
CWC Position: Support
Bill Summary: The bill appropriates funds from the Colorado Water Conservation Board Construction Fund in the Department of Natural Resources for specified water-related projects in FY 2019-20 and makes several cash fund transfers. Appropriations are for FY 2019-20, but funds are available until fully expended.

HOUSE JOINT RESOLUTION 19-1005 Water Projects Eligibility Lists
CWC Position: Support
Bill Summary: No summary, the main contents of the joint resolution are listed below.

WHEREAS, Pursuant to section 37-95-107.8, Colorado Revised Statutes, the Drinking Water Revolving Fund (DWRF) has been created in the Colorado Water Resources and Power Development Authority (Authority) to provide financial assistance for certain drinking water supply projects; and

WHEREAS, Pursuant to sections 37-95-103 (4.8) and 37-95-107.8 (4)(c), Colorado Revised Statutes, in order to qualify for financial assistance from the DWRF, proposed projects must be included on the Drinking Water Project Eligibility List; and

WHEREAS, Pursuant to section 37-95-107.8 (4)(b), Colorado Revised Statutes, the Water Quality Control Commission (Commission) has developed additions, modifications, or deletions to the Drinking Water Project Eligibility List; and

WHEREAS, Pursuant to section 37-95-107.6, Colorado Revised Statutes, the Water Pollution Control Revolving Fund (WPCRF) has been created in the Authority to provide financial assistance for certain wastewater treatment system projects; and

WHEREAS, Pursuant to sections 37-95-103 (13.5) and 37-95-107.6 (4)(c), Colorado Revised Statutes, in order to qualify for assistance from the WPCRF, proposed projects must be included on the Water Pollution Control Project Eligibility List; and

WHEREAS, Pursuant to section 37-95-107.6 (4)(b), Colorado Revised Statutes, the Commission has developed additions, modifications, or deletions to the Water Pollution Control Project Eligibility List; and

WHEREAS, The provision of financial assistance from the DWRF and the WPCRF to the proposed projects will preserve, protect, conserve, and develop the water resources of the state; promote the beneficial use of the waters of the state and the protection and preservation of the public health, safety, and welfare; create and preserve jobs and employment opportunities; and improve the economic welfare of the people of the state; and

WHEREAS, The General Assembly deems the additions and modifications to the Drinking Water Project Eligibility List and the Water Pollution Control Project Eligibility List adopted by the Commission to be in the interest and to the advantage of the people of the state; now, therefore,

Be It Resolved by the House of Representatives of the Seventy-Second
General Assembly of the State of Colorado, the Senate concurring herein:

The rest of the House Joint Resolution lists out the additions, modifications, and deletions to 1) the Drinking Water Project Eligibility List, and 2) the Water Pollution Control Project Eligibility List.

SENATE JOINT MEMORIAL 19-001 Memorial for Arkansas Valley Conduit: No brief description provided.
CWC Position: Support
Bill Summary: The memorial is for memorializing the United States Congress to fulfill the commitment of the federal government to provide funding for the Arkansas Valley Conduit Project.

SENATE JOINT MEMORIAL 19-002 Corps of Engineers to Dredge Lower Arkansas River: Concerning memorializing the United States congress to enact legislation directing the United States Army Corps of Engineers, in conjunction and cooperation with the Lower Arkansas Valley Water Conservancy District, to dredge a portion of the Arkansas River.

CWC Position: Support

Bill Summary: The memorial is for memorializing the United States Congress to enact legislation directing the United States Army Corps of Engineers, in conjunction and cooperation with the Lower Arkansas Valley Water Conservancy District, to dredge a portion of the Arkansas River.

Colorado Water Congress 2019 Bill Status Sheet

			First House					Second House							
Bill No.	Short Title	CWC Position	Introduced	1st Committee	2nd Committee	2nd Reading	3rd Reading	Introduced	1st Committee	2nd Committee	2nd Reading	3rd Reading	First House Repass	Conference Committee	Governor
HB19-1006	Wildfire Mitigation Wildland-urban Interface Areas	18-Mar	RA 1/4	3/18 RA	4/19 Ap	19-Apr	22-Apr	22-Apr Ap	24-Apr Ap		24-Apr	25-Apr			
HB19-1015	Recreation of the Colorado Water Institute	14-Jan	RA 1/4	1/14 RA	17-Jan	18-Jan	23-Jan	23-Jan Ag	31-Jan Ag		4-Feb	5-Feb	11-Feb	11-Feb	20-Feb
HB19-1026	Parks and Wildlife Violations of Law	14-Jan	RA 1/4	1/17 RA @ 1:30pm	28-Jan F	8-Mar	11-Mar	18-Mar Ag	21-Mar RA	16-Apr F	23-Apr	25-Apr			
HB19-1029	Republican River Water Conservation District	14-Jan	RA 1/4	1/14 RA @ 1:30pm	17-Jan	18-Jan	23-Jan	23-Jan Ag	7-Feb Ag		11-Feb	12-Feb	27-Mar	1-Apr	16-Apr
HB19-1050	Encourage Use of Xeriscape in Common Areas	22-Jan	EE 1/4	1/17 EE		25-Jan	28-Jan	1-Feb LG	12-Feb LG		15-Feb	19-Feb	26-Feb	27-Feb	7-Mar
HB19-1082	Water Rights Easements	28-Jan	RA 1/11	1/28 RA		30-Jan	31-Jan	5-Feb Ag	14-Feb Ag		20-Feb	21-Feb	4-Mar	15-Mar	28-Mar
HB19-1096	Colorado Right to Rest	22-Jan	TE 1/14	2/26 TE, LG											
HB19-1108	Nonresident Electors and Special Districts	25-Feb	SVMA 1/14	1/31 SVMA		15-Feb	19-Feb	20-Feb	6-Mar SVMA						
HB19-1113	Protect Water Quality Adverse Mining Impacts	4-Feb	RA 1/15	2/4 RA		6-Feb	7-Feb	11-Feb Ag	7-Mar Ag		13-Mar	14-Mar	26-Mar	27-Mar	27-Mar
HB19-1200	Reclaimed Domestic Wastewater Point of Compliance	4-Mar	RA 2/20	3/4 RA		7-Mar	8-Mar	11-Mar LG	14-Mar LG		19-Mar	20-Mar	27-Mar	28-Mar	28-Mar
HB19-1213	Urban Drainage Flood Control District Director Compensation	11-Mar	EE 2/26	3/14 EE		19-Mar	20-Mar	25-Mar LG	2-Apr LG		5-Apr	8-Apr	22-Apr		25-Apr

Attachment B

			First House					Second House							
Bill No.	Short Title	CWC Position	Introduced	1st Committee	2nd Committee	2nd Reading	3rd Reading	Introduced	1st Committee	2nd Committee	2nd Reading	3rd Reading	First House Repass	Conference Committee	Governor
HB19-1218	Loaned Water for Instream Flows to Improve Environment	25-Mar	EE 3/4	3/25 EE @ 1:30pm		29-Mar	1-Apr	2-Apr Ag	17-Apr Ag						
HB19-1231	New Appliance Energy and Water Efficiency Standards	1-Apr	EE 3/8	3/25 EE @ 1:30pm		3-Apr	4-Apr	5-Apr TE	23-Apr TE		30-Apr				
HB19-1247	Study Agricultural Applications for Blockchain	1-Apr	RA 3/15	3/28 RA	4/12 Ap	12-Apr	15-Apr	16-Apr Ag	16-Apr Ag						
HB19-1259	Species Conservation Trust Fund Projects	1-Apr	RA 3/20	4/1 RA @ 1:30pm	4/9 Ap	9-Apr	10-Apr	10-Apr Ag	18-Apr Ag	23-Apr Ap	26-Apr	27-Apr			
HB19-1271	Augmentation of Instream Flows	8-Apr	RA 3/25	4/8 RA		10-Apr	11-Apr	4/12 Ag	17-Apr Ag						
HB19-1279	Protect Public Health Firefighter Safety Regulation PFAS Polyfluoroalkyl Substances	8-Apr	EE 3/27	4/11 EE	4/16 Ap	16-Apr	18-Apr	18-Apr HHS	25-Apr HHS	26-Apr Ap	27-Apr	30-Apr			
HB19-1303	No Liability if Landowner Grants Free Access Land	15-Apr	J 4/1	4/11 RA											
HB19-1327	Authorize and Tax Sports Betting Refer Under Taxpayers' Bill of Rights	22-Apr	F 4/22	4/22 F	23-Apr Ap	23-Apr	27-Apr	24-Apr F	26-Apr F	27-Apr Ap					
SB19-016	Severance Tax Operational Fund Distribution Methodology	14-Jan	Ag 1/4	1/17 Ag @ 1:30pm		22-Jan	23-Jan	23-Jan EE, F	7-Feb EE	4-Mar F	8-Mar	11-Mar	21-Mar	21-Mar	1-Apr

			First House					Second House							
Bill No.	Short Title	CWC Position	Introduced	1st Committee	2nd Committee	2nd Reading	3rd Reading	Introduced	1st Committee	2nd Committee	2nd Reading	3rd Reading	First House Repass	Conference Committee	Governor
SB19-037	Wildfire Mitigation	22-Jan	SVMA 1/4	1/28 SSVMA @ 1:30pm											
SB19-181	Protect Public Walfare Oil and Gas Operations	25-Mar	TE 3/1	3/5 TE	3/8 F	12-Mar	13-Mar	14-Mar EE, F, Ap	18-Mar EE	25-Mar F	28-Mar	29-Mar	3-Apr	11-Apr	16-Apr
SB19-184	Authority Colorado Water Institute Study Blockchain Technology	18-Mar	Ag 3/5	3/21 Ag											
SB19-186	Expand Agricultural Chemical Management Program Protect Surface Water	8-Apr	Ag 3/5	4/4 Ag	4/16 F	23-Apr	24-Apr	24-Apr RA	26-Apr RA	29-Apr Ap	30-Apr	1-May			
SB19-212	Appropriation General Fund Implement State Water Plan	1-Apr	Ap 3/25	3/26 Ap		27-Mar	28-Mar	29-Mar Ap	2-Apr Ap		4-Apr	5-Apr	11-Apr	12-Apr	17-Apr
SB19-221	CO Water Conservation Board Construction Fund Project	8-Apr	Ag 3/29	4/12 Ap		12-Apr	15-Apr	15-Apr SVMA	23-Apr SVMA	26-Apr Ap	26-Apr	29-Apr			
HJR19-1005	Water Projects Eligibility Lists	14-Jan	RA 1/10	1/17 RA		25-Jan	25-Jan	29-Jan, Ag	31-Jan Ag			4-Feb	5-Feb	5-Feb	20-Feb
SJM19-001	Memorial for Arkansas Valley Conduit	14-Jan	Ag 1/4	1/17 Ag @ 1:30pm			22-Jan	23-Jan RA	11-Feb RA			13-Feb	13-Feb	14-Feb	
SJM19-002	Corps of Engineers to Dredge Lower Arkansas River	14-Jan	Ag 1/4	1/17 Ag @ 1:30pm			22-Jan	23-Jan RA	11-Feb RA			13-Feb	13-Feb	14-Feb	

BILL STATUS	ABBREVIATIONS
Bill scheduled for action at next SA meeting (yellow)	RA = Rural Affairs Committee
Bill not calendared (no fill)	Ap = Appropriations Committee
Bill Passed, date of action (green)	BLEW = Business, Labor, Economic and Workforce Development Committee
Bill no longer active (gray)	CC = Conference Committee
Bill Postponed Indefinitely, Lost or Laid Over to end of session, date of action (orange)	F = Finance Committee
Bill did not go to second committee or no action required (black)	HIE= Health, Insurance, and Environment
	J = Judiciary
CWC POSITION	LG = Local Governement Committee
Bill scheduled for activity in CWC State Affairs (yellow)	SVMA = State, Veterans, and Military Affairs Committee
Support (green)	TE = Transportation and Energy Committee
Oppose (orange)	UA = Upon Adjournment
Amend (blue)	UR = Upon Recess
Monitor, Neutral, No Position	Ag = Agriculture and Natural Resources Committee
	EE = Energy & Environment

Attachment C

Colorado Water Congress

2019 Federal Priorities

Authorization/Funding for Control of **Aquatic Nuisance** (Invasive) Species

Colorado River **Drought Contingency Planning**
Authorization and Implementation ($)

Endangered Species Recovery Implementation Programs
Annual Appropriation
Legislative Change to Authorized Annual Spending
San Juan River Basin
Platte River Program Reauthorization (2019)

USDA Conservation Programs (**Farm Bill**)

Land & Water Conservation Fund
Authorization and Funding

Watershed, Forest, and Soil Health

Infrastructure Funding
Short-Term Infrastructure Package
Maintaining Existing Programmatic Funding (ex. State Revolving Loan)
Financing Mechanisms Other than Federal Appropriations

Tax Exemption for Water Conservation Rebates

Water Rights Protection Act

Water Transfer Rule Legislation

Good Samaritan Legislation
Superfund Programmatic Funding for Abandoned Mines (ex. Gold King)

Regulatory Changes due to **Climate Variability**

ESA Reform Efforts, Legislative and Administrative

NEPA and **Permit Streamlining**

Waters of the United States Rule-making

Other Colorado Priorities

NRCS Funding for Manual **Snow Course** Measurement
Bolt's Ditch
Duplicate Pesticide Permitting
USFS and BLM **Management Plans**

LOVELAND UTILITIES COMMISSION

AGENDA ITEM: 4
MEETING DATE: 5/15/2019
SUBMITTED BY: Ryan Van Pelt
STAFF TITLE: Civil Engineer II

ITEM TITLE:

Water Supply Update

DESCRIPTION:

Raw water supply update.

SUMMARY:

United States Drought Monitor Map of Colorado, as of April 30, 2019 (Attachment A):

- The South Platte Basin has favorable conditions and does not have a drought designation.
- The drought conditions in southwestern Colorado have improved significantly with only a small portion in the southwest corner designated as being in a **Moderate Drought** (D1).
- The majority of the Colorado River Basin in Colorado does not have a drought designation.

NRCS Colorado SNOTEL Snow Water Equivalent (SWE) Map, as of May 6, 2019 (Attachment B):

- Indicates the South Platte Basin is at **110% of Median** SWE (1981-2010)
- Overall Statewide, we are currently at **132% of Median** SWE

Locations of Bear Lake & Lake Irene SNOTEL Sites:

- Bear Lake SNOTEL site is in the upper Big Thompson River Basin
- Lake Irene SNOTEL site is in the upper Colorado River Basin near the Continental Divide and is indicative of conditions in the upper Big Thompson basin.

Bear Lake NRCS SNOTEL Site (Attachment C):

- First Graph shows the SWE from October 2019 through May 7, 2019 (purple) compared to 2002, 2015, 2016, 2017, and the 30-year Median (1981-2010).
- Second Graph shows the entire snow accumulation and melt-off period from October through mid-June.
- Currently, the SWE accumulation is slightly below the 30-year median and below the 2017 SWE.

Next Two Tables - NRCS SNOTEL as of May 7, 2019 (Attachment D)

- Bear Lake SWE at 16.2 inches, or 91% of Median
- Lake Irene SWE at 25.2 inches, or 109% of Median

RECOMMENDATION:

Information item only. No action required.

ATTACHMENTS:

- Attachment A – U.S. Drought Monitor Map of Colorado
- Attachment B – Colorado SNOTEL SWE Update Map
- Attachment C – Snow-Water Equivalent Graphs at Bear Lake
- Attachment D – Colorado SNOTEL Update Table

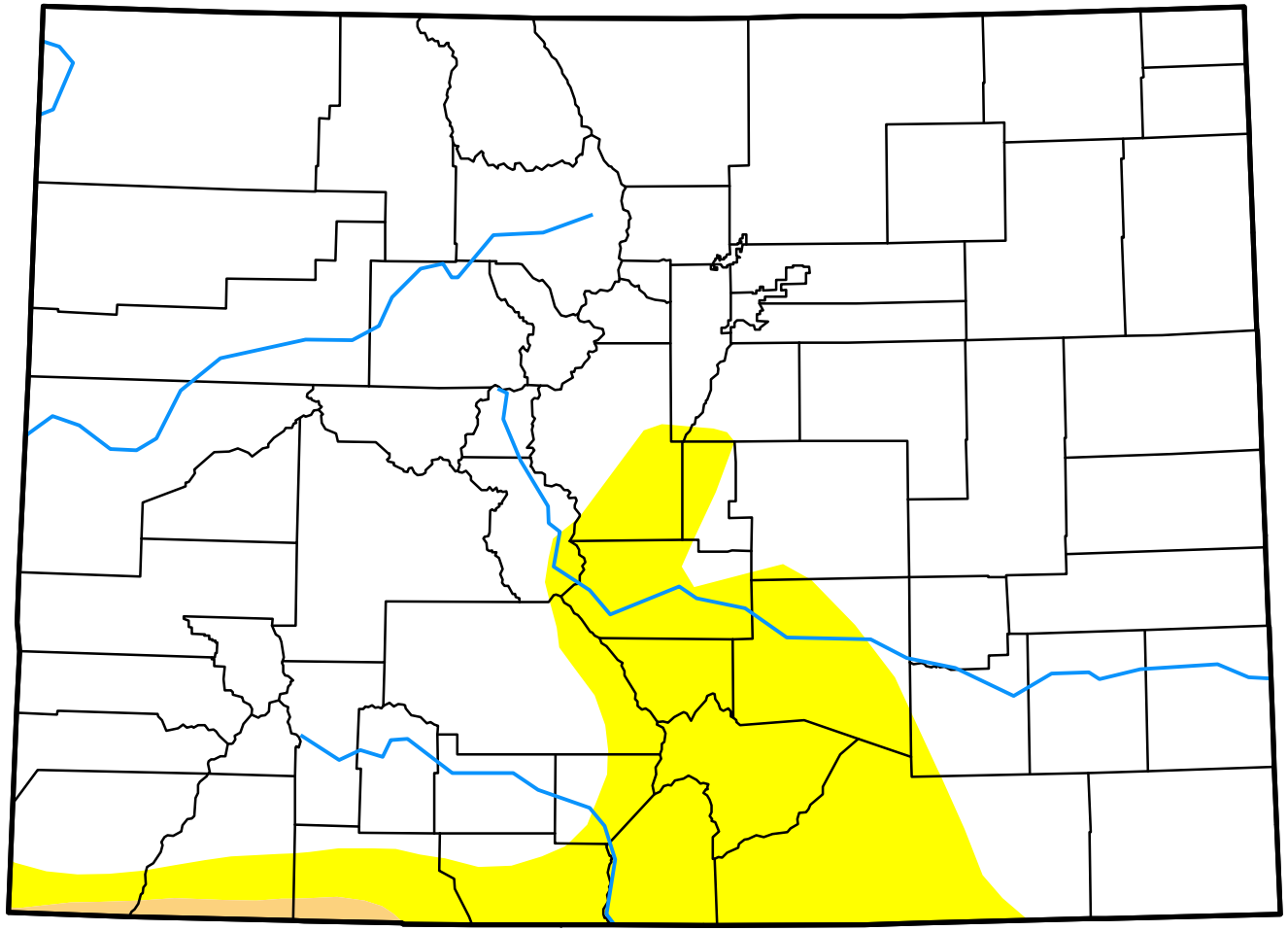
U.S. Drought Monitor

Colorado

April 30, 2019

(Released Thursday, May. 2, 2019)

Valid 8 a.m. EDT



Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

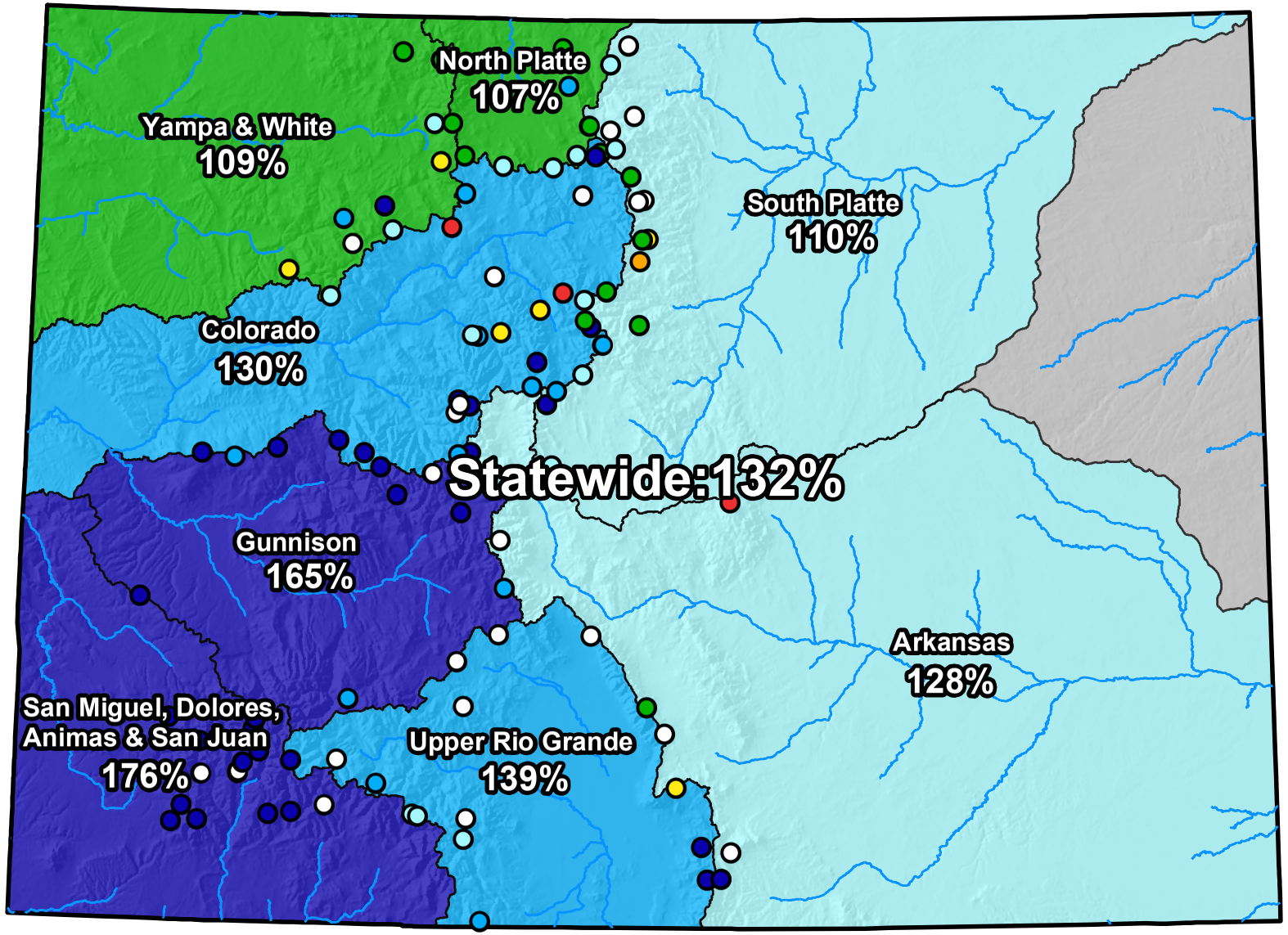
Brad Rippey
U.S. Department of Agriculture

http://droughtmonitor.unl.edu/

Attachment A

Colorado SNOTEL Snow Water Equivalent (SWE) Update Map with Site Data

Current as of May 06, 2019



SWE

Percent of Median

- Missing or Invalid
- < 50
- 50 - 69
- 70 - 89
- 90 - 109
- 110 - 129
- 130 - 149
- >= 150
- SNOTEL

N

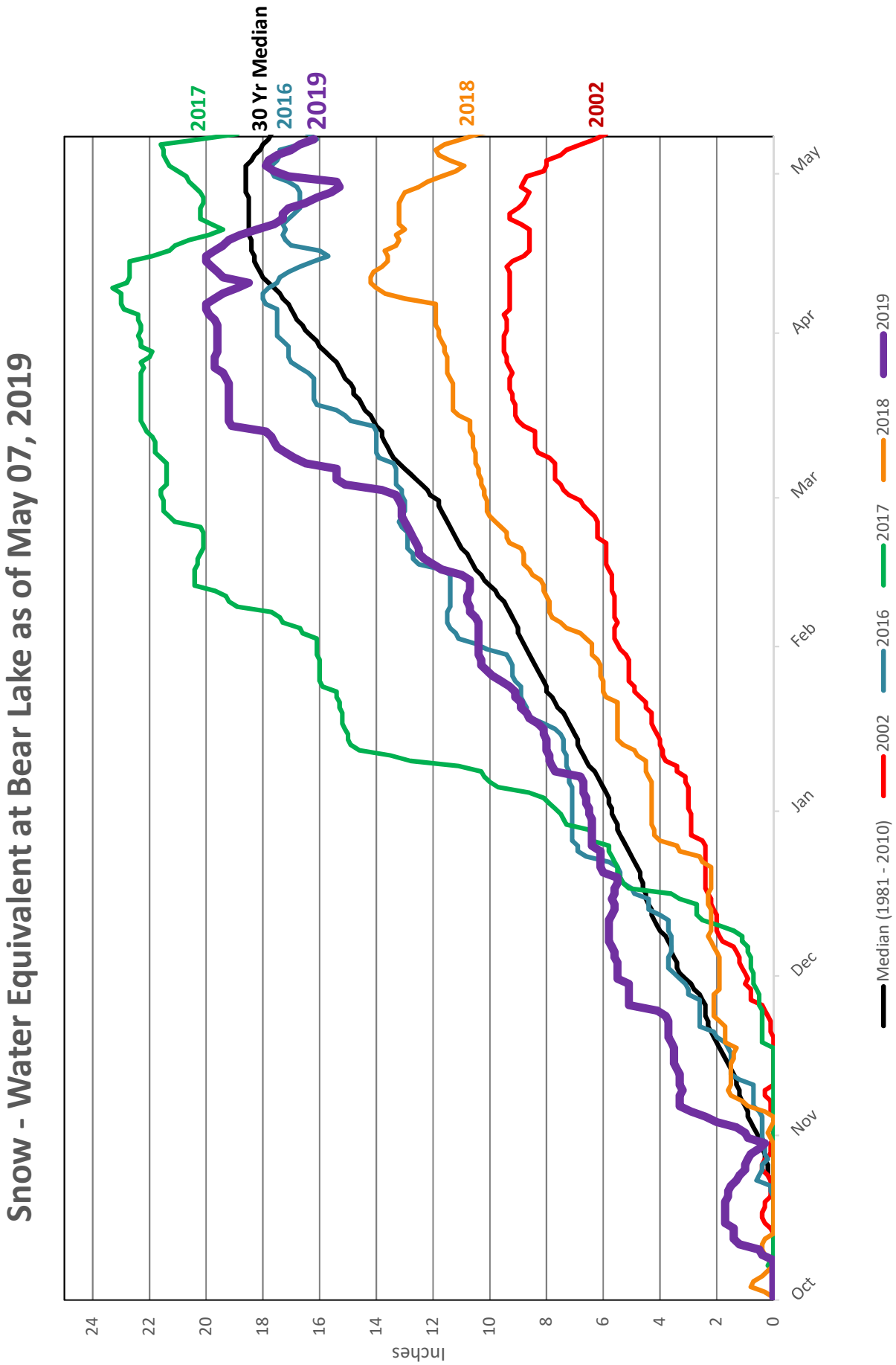
0 25 50 100 150 200 Miles

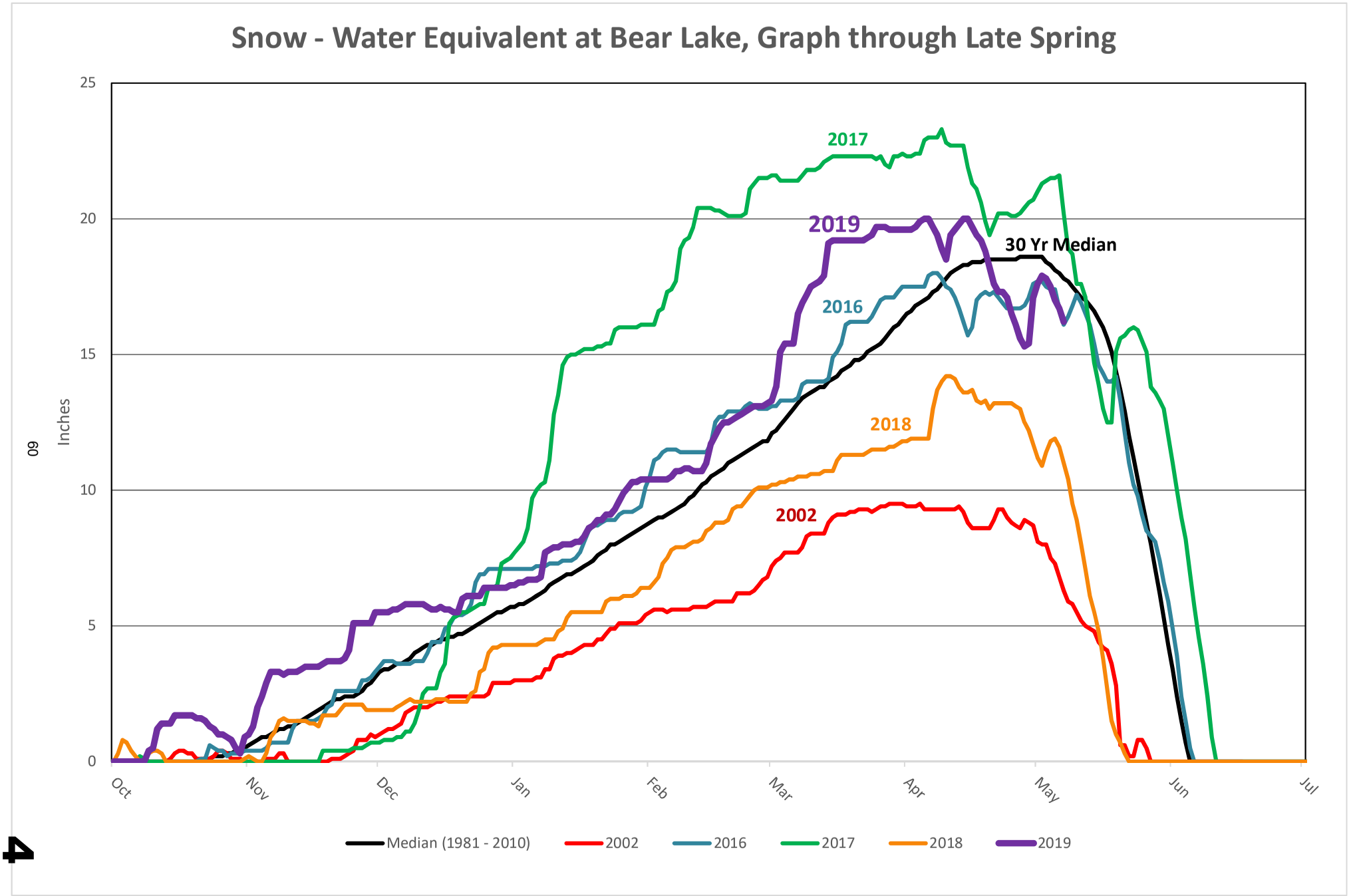
USDA United States Department of Agriculture

Natural Resources Conservation Service

Attachment B

Attachment C




Snow - Water Equivalent at Bear Lake, Graph through Late Spring
Inches
25
20
15
10
5
0
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
2017
2019
30 Yr Median
2016
2018
2002
Median (1981 - 2010)
2002
2016
2017
2018
2019

09

4

Attachment D

Colorado SNOTEL Snowpack Update Report

Based on Mountain Data from NRCS SNOTEL Sites

Data based on first reading of the day for: ***May 7, 2019***

Station Name	River Basin	Elevation	Snow Water Equivalent (SWE)				Percent of	
			Current	Today's Median	Median Peak	Median Peak Date	Today's Median	Median Peak
		(ft)	(in)	(in)	(in)		(%)	(%)
Bear Lake	South Platte	9,500	16.2	17.8	18.6	Apr-30	91	87
Lake Irene	Upper Colorado	10,700	25.2	23.2	24.9	Apr-07	109	101

LOVELAND UTILITIES COMMISSION

AGENDA ITEM: 5
MEETING DATE: 5/15/2019
SUBMITTED BY: Nathan Alburn
STAFF TITLE: Civil Engineer I, Water Resources

ITEM TITLE:

Resolution #R-2-2019U adopting the Loveland Utilities Commission's Policy on the Criteria for Long-Term Augmentation Supply Agreements

DESCRIPTION:

Section 13.04.241 of the Loveland Municipal Code authorizes the Loveland City Manager to execute leases of up to three years for the City's excess raw water, including leases of the City's excess fully reusable water that could be used as a replacement or augmentation supply to replace a water user's out-of-priority depletions. The City of Loveland periodically receives requests to provide, on a long-term basis, augmentation water to entities outside of the City (an "Augmentation Supply Agreement"). Any such agreement would need to be approved by resolution of the City Council, and which would require a review and recommendation by the LUC.

The City has a number of existing long-term agreements (greater than twenty years, or permanent), whereby the City is obligated to provide reusable water. Based on a recent request for an Augmentation Supply Agreement, the LUC in March and April 2019 discussed the parameters of a policy to assist Staff in handling these requests. Staff also presented an outline of augmentation policy conditions they recommended and asked for LUC's guidance moving forward. LUC provided valuable feedback. This feedback has been incorporated into a proposed resolution that would provide direction to all interested parties concerning the criteria that the LUC would apply in determining whether it would recommend the City Council's approval of a long-term Augmentation Supply Agreement.

SUMMARY:

Based on previous discussions of the LUC, review of surrounding municipalities' policies, and internal staff discussion, the Staff recommends that the LUC adopt a publicly available policy that will guide Staff response to requests for Augmentation Supply Agreements. The Policy would provide guidance on the parameters of an Augmentation Supply Agreement longer than three years that the LUC would be comfortable recommending for City Council's approval. Below is a summary of the criteria in the Policy as reflected in the proposed resolution:

Nexus. The Applicant must have a clear nexus to the City as determined in the sole discretion of the LUC. A clear nexus may be found where the Applicant is located in close proximity to the City or within the City or the Applicant provides a significant financial or community benefit to the City.

No Negative Impact. The quantity of reusable augmentation water requested by the Applicant, if approved and provided by the City, will not cause an adverse impact to the City's firm yield of water supplies for its existing municipal customers, projected municipal growth, and existing long-term obligations. The Augmentation Supply Agreement must not cause a net negative impact to the City's water utility.

Consideration. The consideration provided by the Applicant must provide a significant firm yield water supply or economic benefit to the City. To meet this criteria, the Applicant must permanently transfer to the City ownership of two Colorado-Big Thompson Project ("C-BT") units of water, or provide the cash equivalent of two C-BT units based on the then-existing market price per C-BT unit as recognized by Resolution of the LUC, as consideration for each acre-foot of reusable water supply provided by the City on an annual basis for the benefit of the Applicant.

Drought or Unforeseen Contingency. The Applicant must accept language in the Agreement that releases the City from its obligations to provide the reusable water supply in a particular year in the event that the water is required by the City for its own use due to justified reasons including drought, difficulties with public infrastructure, natural disasters, or other unforeseen circumstances that impact the ability of the City to serve water to its municipal customers.

Administrative Fee. The Applicant must provide sufficient annual compensation for the City's administrative time for its staff to administer and account for the reusable water supplies provided to the Applicant as approved by the Colorado Division of Water Resources.

Term. The Augmentation Supply Agreement must not exceed a term of twenty years in duration, and must be renewable at the mutual option of the City and the Applicant. The City must not be responsible for lagged depletions that may occur beyond the term of the agreement or in the event of termination of the Agreement.

Heirs, Successors, and Assigns. The Augmentation Supply Agreement must not automatically bind the City with respect to the Applicant's heirs, successors, and assigns.

The criteria in the Policy are flexible enough to allow an Applicant, or the City, to negotiate the finer details of a proposed Augmentation Supply Agreement that would be presented for the LUC's review and recommendation to City Council, and would require the LUC to determine whether the Applicant has satisfied the first criteria- a clear nexus to the City. In this manner, the LUC still would be presented with the terms of an Augmentation Supply Agreement for a recommendation to City Council, and if the Applicant meets the criteria and the LUC finds a clear nexus, then the LUC would be bound to follow its Policy and recommend the City Council's approval.

The proposed resolution would also provide authority for the LUC to deviate from the Policy on a case-by-case basis where the LUC finds that such deviation would be in the best interests of the City and the customers of its water utility. This would allow the Staff to present for the LUC's review and recommendation to the City Council the proposed terms of Augmentation Supply Agreements that differ from those in the policy (i.e., a shorter-term agreement of eight years, with case consideration provided on a year-by-year basis instead of a permanent transfer of C-BT units.

RECOMMENDATION:

Motion to adopt Resolution R-02-2019U, a Resolution Adopting a Policy of the Loveland Utilities Commission Concerning the Criteria for Acceptable Long-Term Augmentation Supply Agreements (Attachment A).

Attachments:

- Attachment A: Resolution #R-2-2019U

Attachment A

LOVELAND UTILITIES COMMISSION

RESOLUTION #R-2-2019U

RESOLUTION ADOPTING A POLICY OF THE LOVELAND UTILITIES COMMISSION CONCERNING THE CRITERIA FOR ACCEPTABLE LONG-TERM AUGMENTATION SUPPLY AGREEMENTS

WHEREAS, Section 2.60.180 of the Loveland Municipal Code establishes the Loveland Utilities Commission ("LUC") to serve as an advisory body to the Loveland City Council on all matters pertaining to the water, waste water, and electric utility operations and services provided by the City of Loveland ("City"); and

WHEREAS, Section 2.60.180.B.3 of the Loveland Municipal Code authorizes the LUC to develop, approve, and adopt policies, practices, and guidelines to assist the Water and Power Department in the efficient operation of the City's water, wastewater, and electric utilities, and

WHEREAS, Section 2.60.180.B.6 directs the LUC to provide policy recommendations to the City Manager and the director of the Water and Power Department concerning all water, wastewater, and electric utility matters within the jurisdiction; and

WHEREAS, the City periodically receives requests to provide to water users or entities on a long-term basis reusable water supplies for augmentation or replacement purposes; and

WHEREAS, the City's diverse and robust water rights portfolio provides a mix of reusable and non-reusable sources allowing the City to reliably provide clean and safe water supplies to every utility customer, while also planning and securing sufficient water supplies for future population growth and greater demand; and

WHEREAS, depending on water supply conditions, in certain years the City has excess water supplies, including reusable water supplies decreed for augmentation or replacement, that may not be required to serve the City's municipal customers and are available for short or long term lease, trade, exchange, or sale to other water users or entities for appropriate consideration; and

WHEREAS, the City's robust water rights portfolio and its strategic water treatment and supply infrastructure make the City uniquely situated to provide by long-term agreement reusable water for augmentation or replacement purposes to other water users and entities in the Big Thompson River basin for appropriate market consideration ("Augmentation Supply Agreements"); and

WHEREAS, under Section 13.04.241 of the Loveland Municipal Code, the Loveland City Manager may rent the City's surplus raw water, including surplus raw reusable water that could be used for augmentation or replacement purposes, on a year-to-year basis up to a three year term at rates that reflect the market rates for such raw water; and

WHEREAS, any Augmentation Supply Agreement whereby the City would provide reusable water supplies for augmentation purposes for a term longer than three years must be

approved by the Loveland City Council; and

WHEREAS, the LUC desires to provide guidance and a publicly-available policy to assist the Water and Power Department in negotiating with interested parties the terms of proposed Augmentation Supply Agreements, where such policy will describe the criteria to be applied by the LUC in determining whether to recommend the City Council's approval of a particular Augmentation Supply Agreement.

NOW, THEREFORE, BE IT RESOLVED BY THE LOVELAND UTILITIES COMMISSION OF THE CITY OF LOVELAND, COLORADO:

Section 1. That the Loveland Utilities Commission will recommend for approval by the City Council any Augmentation Supply Agreement between the City of Loveland and a water user or entity (the "Applicant") longer than three years that satisfies the following criteria:

1. **Nexus**. The Applicant must have a clear nexus to the City as determined in the sole discretion of the LUC. A clear nexus may be found where the Applicant is located in close proximity to the City or within the City or the Applicant provides a significant financial or community benefit to the City.
2. **No Negative Impact**. The quantity of reusable augmentation water requested by the Applicant, if approved and provided by the City, will not cause an adverse impact to the City's firm yield of water supplies for its existing municipal customers, projected municipal growth, and existing long-term obligations. The Augmentation Supply Agreement must not cause a net negative impact to the City's water utility.
3. **Consideration**. The consideration provided by the Applicant must provide a significant firm yield water supply or economic benefit to the City. To meet this criteria, the Applicant must permanently transfer to the City ownership of two Colorado-Big Thompson Project ("C-BT") units of water, or provide the cash equivalent of two C-BT units based on the then-existing market price per C-BT unit as recognized by Resolution of the LUC, as consideration for each acre-foot of reusable water supply provided by the City on an annual basis for the benefit of the Applicant.
4. **Drought or Unforeseen Contingency**. The Applicant must accept language in the Agreement that releases the City from its obligations to provide the reusable water supply in a particular year in the event that the water is required by the City for its own use due to justified reasons including drought, difficulties with public infrastructure, natural disasters, or other unforeseen circumstances that impact the ability of the City to serve water to its municipal customers.
5. **Administrative Fee**. The Applicant must provide sufficient annual compensation for the City's administrative time for its staff to administer and account for the reusable water supplies provided to the Applicant as approved by the Colorado Division of Water Resources.
6. **Term**. The Augmentation Supply Agreement must not exceed a term of twenty years in duration, and must be renewable at the mutual option of the City and the Applicant. The City must not be responsible for lagged depletions that may occur beyond the term of the agreement or in the event of termination of the Agreement.
7. **Heirs, Successors, and Assigns**. The Augmentation Supply Agreement must not automatically bind the City with respect to the Applicant's heirs, successors, and assigns.

Section 2. That the Loveland Utilities Commission may deviate from this policy on a case-by-case basis where the LUC finds that such deviation will be in the best interests of the City and the

customers of its water utility.

Section 3. That the Water and Power Department should make publicly available at an appropriate location the policy guidance stated above in Section 1 of this Resolution

Section 4. That this Resolution shall be effective as of the date of its adoption.

ADOPTED this 15th day of May, 2019.

_____
Chairman, Loveland Utilities Commission

ATTEST:

_____
Secretary, Loveland Utilities Commission

APPROVED AS TO FORM:

_____
Assistant City Attorney

LOVELAND UTILITIES COMMISSION

AGENDA ITEM: 6
MEETING DATE: 5/15/2019
SUBMITTED BY: Brian Gandy
STAFF TITLE: Special Projects Manager

ITEM TITLE:

Water Quality Laboratory Construction Contract Award

DESCRIPTION:

The purpose of this item is to award a construction contract to the lowest qualified bidder for the new Water Quality Laboratory (Project # W1702H).

SUMMARY:

The City currently has two (2) water quality labs that are State Certified by the Colorado Department of Public Health and Environment (CDPHE). The Wastewater Treatment Plant Lab (1,170 sf) was constructed in 1974, and the Water Treatment Plant Lab (125 sf) was constructed in 1981. The proposed project would construct a new laboratory building on the grounds of the wastewater treatment plant and will serve the functions of both water and wastewater laboratory needs.

Below is a summary tabulation of bidders:

	Saunders Heath	Dohn Construction	Sampson Construction	Bryan Construction
Base Bid (approx. 7,200 sf building)	$4,078,360	$4,208,000	$4,230,000	$4,315,000
Bid Alternate (approx. 8,000 sf building)	**$4,310,492**	$4,439,000	$4,460,000	$4,551,000

Please see Attachment A for a detailed bid tabulation. The department has adequate funds available in the 2019 budget to construct this project.

Per Municipal Code 3.12.060A and 3.12.060B, the LUC may approve Water and Power contracts above $500,000 or any change order that causes a contract to equal or exceed $500,000 and which, when combined with all previous change orders, equals or exceeds 20% of the original contract amount.

RECOMMENDATION:

Adopt a motion to award the construction contract for the Water Quality Laboratory to Saunders Heath in the amount not to exceed of $4,310,492 in which the Bid Alternate is the basis of the award and authorize the City Manager to execute the contract on behalf of the City.

ATTACHMENTS:

- Attachment A: Water Quality Laboratory – Bid Tabulation

BIDS RECEIVED: Thursday, May 2, 2019 @ 2:00PM
PROJECT NAME: Water Quality Laboratory (W1702H)
BID NUMBER: 2019-17
BIDS TABULATED BY: Brian Gandy
BIDS CHECKED BY: Brian Gandy

City of Loveland

WATER QUALITY LABORATORY					
NAME OF BIDDER		**Saunders Heath**	**Dohn Construction, Inc.**	**Sampson Construction Co., Inc.**	**Bryan Construction Inc.**
BIDDER'S CONTACT INFORMATION		Travis Warner 1212 Riverside Ave. Suite 130 Fort Collins, CO 80524 970-221-4195 (phone)	Douglas Dohn 2642 Midpoint Drive Fort Collins, CO 80525 970-490-1855 (phone)	Brad Bakel 4508 Endeavor Drive Johnstown, CO 80534 970-203-0071 (phone)	Todd Blanks 4700 Innovation Drive, Bldg C Fort Collins, CO 80525 970-377-0937 (phone)
SHEDULE	**ITEM**	**LUMP SUM**	**LUMP SUM**	**LUMP SUM**	**LUMP SUM**
A	Base Bid - Lump Sum Bid Price for approximate 7,200 sf Water Quality Lab (**excluding** Shell Space Rm #131.1 and Env. Compliance Rm #132.1)	$4,078,360.00	$4,208,000.00	$4,230,000.00	$4,315,000.00
B	Bid Alternate - Lump Sum Bid Price for approximate 8,000 sf Water Quality Lab (**including** Shell Space Rm #131.1 and Env. Compliance Rm #132.1)	**$4,310,492.00**	$4,439,000.00	$4,460,000.00	$4,551,000.00
	MEET QUALIFICATIONS:	Yes	Yes	Yes	Yes
	NOTES:	**Apparent Low Bidder**			

Attachment A

LOVELAND UTILITIES COMMISSION

AGENDA ITEM: 7
MEETING DATE: 5/15/2019
SUBMITTED BY: Brian Gandy
STAFF TITLE: Special Projects Manager

ITEM TITLE:

Water Quality Laboratory Contract Amendment (#3) for additional Design Phase Services and Services during Construction for **HDR Engineering**

DESCRIPTION:

This item is for the approval of the contract amendment to HDR Engineering for additional design phase services and those selective services during the construction of the Water Quality Laboratory.

SUMMARY:

As a result of several post-90% design changes, both from a project enhancement and value-engineering standpoint, HDR identified that those specific changes were out of their original scope of design services and would require additional fee.

In addition to the reconciliation of the design phase services, HDR will also provide selective engineering services during the construction phase. HDR's responsibilities during construction relative to their respective scope of work include the following:

- Maintain engineer of record status as it relates to the responsibility of the design and any design changes made during construction
- Attend weekly progress meeting and be kept informed of the construction progress
- Review and respond to selected shop submittals and RFIs
- Conduct as-needed special inspections
- Provide start-up assistance
- Provide record drawing support

The current HDR contract is $611,253. We will amend the existing contract to include the additional design services in the amount of $40,337 and engineering services during construction in the amount of $149,986.
Funds are available for this professional service contract amendment in the current 2019 budget.

Per Municipal Code 3.12.060A and 3.12.060B, the LUC must approve Water and Power contracts above $500,000 or any change order that causes a contract to equal or exceed $500,000 and which, when combined with all previous change orders, equals or exceeds 20% of the original contract amount.

RECOMMENDATION:

Adopt a motion recommending that the LUC approve the amendment to the contract for additional design services and selective engineering services during construction with HDR to increase the not-to-exceed amount to **$801,576** and authorize the City Manager to sign the change order on behalf of the City.

ATTACHMENTS:

- Attachment A: Water Quality Lab Phase II – Additional Design Services – Scope and Fee
- Attachment B: Water Quality Lab Phase III – Services During Construction – Scope and Fee

Attachment A

May 7, 2019

Mr. Brian Gandy CCM
Special Projects Manager
City of Loveland, Water, & Power Department
200 N Wilson Avenue
Loveland, Colorado 80537

Dear Brian,

As requested, we are submitting the attached additional service proposals for the ***City of Loveland Water Quality Lab.*** We appreciate the opportunity to work with the City of Loveland Water Quality Lab Staff, and look forward to assisting you in the completion of your project goals.

The following is a brief description of scope and services provided for these add services:

- Amendment 3.1 – Final Design Services: As reviewed with the Owner during our March 7th, 2019 meeting, and follow up emails, the following items were agreed to as Change in Scope items for which HDR will be compensated:
    - Additional Meetings, Furniture Design, Controls Conversations & Development & Spec's, Electrical & Lighting Redesign, Civil & Grading Updates, Landscape Design, Exterior Canopies & Sun Shades, and Removal of Modular Mechanical Layout (more detailed descriptions have been provided in the attached Amendment 3.1 narratives).
- Amendment 3.2 – Construction Phase Services: Engineer shall perform construction administrative services during the construction phase of the project. As the A/E of record, Engineer shall provide professional design services which include attending Owner/ Architect/ Contractor (OAC) meetings, assistance with value engineering, reviewing RFI's & Submittals, providing specialty work observations, review start up assistance & training provided by the contractor, prepare record drawings, review change order documentation, and provide punchlist walkthroughs ahead of substantial completion. In the interest of using these engineering services efficiently and effectively, the Owner has hired a RPR (Resident Project Representative) that will provide the onsite construction inspection, assist in interpreting the construction documents, and serve as the contractor liaison. This liaison will effectively limit the scope of professional services for the Engineer, as outlined in the attached amendment scope description.

hdrinc.com

1670 Broadway, Suite 3400, Denver, CO 80202-4824
(303) 764-1520

Please let me know if you have any questions or concerns with the attached. We look forward to working with the City on the construction of this important project.

HDR Architecture

Andrew Schwabe
Senior Project Manager
Andrew.Schwabe@HDRinc.com |303.764.1580

EXHIBIT A
AMENDMENT NO. 3.1
TO AGREEMENT BETWEEN
CITY OF LOVELAND, COLORADO
AND
HDR ENGINEERING, INC.
FOR
PROFESSIONAL SERVICES FOR
WWTP WATER QUALITY LAB
HDR Project No.: 10063087

THIS IS AN AMENDMENT made as of _____May 7th_____ ___, 2019 to the agreement between the City of Loveland, Colorado (CITY) and HDR Engineering, Inc. (HDR) dated July 24, 2017, titled WWTP Water Quality Lab.

"CITY" and "HDR" agree to amend such Agreement as follows, all other provisions of the Agreement shall remain the same.

ADD THE FOLLOWING TASKS:

PHASE II – FINAL DESIGN
The following design services performed during the final design phase were reviewed with the Owner during our March 7th, 2019 meeting, and follow up emails; the following items were agreed to as Change in Scope items for which HDR will be compensated. Refer to the attached fee spreadsheet for additional information for these individual tasks.

Task 100 – Additional Meetings
Task 100 of amendment 1 of the contract stipulates that there will be a total of 8 meetings for the original scope of work. The following lists the additional meetings that were discussed as part of this add service.

1. 60% Estimate Reconciliation meeting – 9/20/18
2. Garney VE mechanical meeting on 9/28/18
3. Meeting for mechanical on 11/29/18
4. Meeting for Lab on 12/4/18
5. 90% Owner Pre-Review meeting – 1/11/19
6. Final Mech Review meeting – 2/27/19

Task 200 – Furniture Design
The Owner has request that HDR provide professional design services for preliminary furniture design which up until the 90% design package had been coordinated through CoL staff. It is assumed that 60% design CAD plans will be provided, that the furniture will be sole sourced from Steelcase, and that Loveland standards for office layouts, materials and product line are to be used. This scope includes an in person meeting of final design review and approval of layout, finishes, material/color selections, specs, rough-in requirements, and means of procurement by CoL from the furniture vendor. HDR will provide furniture plans, and specs. to

the furniture vendor for development of the furniture package. As part of these scope of services HDR will provide CA services for the furniture installation. This scope of service is not defined in the current contract and is considered a change in scope.

Task 300 – Controls Conversations & Development & Spec's
The Owner has requested a standalone PLC controls network with I/O interface with BMS panel to be introduced to the project. This system will allow staff to monitor specific equipment while providing a physical separation from the BMS network. Design services have been requested for HDR to develop our BMS network, specifications, and system architecture to accommodate the PLC controls network and I/O interface. This level of development for the controls is more in keeping with a process facility, not a Lab; as such this is considered a change in scope.

Task 400 – Electrical & Lighting Redesign
The Owner has request a revised design of Electrical Systems for the following items per 90% review comments. These updates are considered new information compared to information provided in either the 6/27/18 meeting or 60% Design Pkg. These design changes are considered a change in scope for professional service, consistent with Task 301, Amendment 1 of the contract.

Lighting:

- Show lighting control power packs (normal and emergency).
- Adjust the lighting layout in 128-Autoclaves in order to avoid the revised steam hood size.
- Update normal and emergency photometric analysis per new lighting layout updates.
- Update photometric performance note values on lighting plans after completing photometric analysis updates.
- Add 3-way and/or 4-way dimmer switches in 125-Gen Chem. Drinking Water Lab, 126-Gen Chem. WW Lab, 127-Microbio WW Lab, 128-Autoclaves, and 130-Microbio Drinking Water Lab.
- Add 3-way switches in 108-Passage, 109-Vestibule, 114-Passage, and 117-Sample Drop-off.

Power:

- Change branch circuits of specific receptacles dedicated for computers from normal power to UPS power in 101-Office, 102-Office, 103-Analyst Work Area, 118-Sample/Receiving COC, and 125-Gen Chem. Drinking Water Lab. COL is to verify if other locations need to be considered for this change.
- Show all VFDs and/or disconnect switches for all mechanical/ plumbing equipment (i.e.-pumps, fans, etc.) in 110-Mechanical/Electrical room.
- Update One-line Riser Diagram to show the digital metering external of switchboard SWBD-11. Show external digital meter location in 110-Mechanical/Electrical room.
- Show and tag mechanical and plumbing equipment and associated electrical devices (VFD, disconnect switch, etc.) on the power plans.

Site:

- Revise the routing of the underground power and fiber optic duct bank from the TWAS bldg. to the WQL. This is a result of site drainage being updated from location shown on site plan provide in December, 2018.

Task 500 – Civil & Grading Updates
For the 60% Design Package HDR was directed to use survey information at the fence and the road and provide straight grading between those markers. As part of the 60% review comments as well as follow up meetings, the Owner indicated that site design and grading approach had changed and that information would be provided to HDR for coordination with the other existing projects occurring on the site. This information was provided to 1/3/19, just prior to issuance of the 90% Design package. As a result of the timing of this information, additional time for review and coordination is needed; in addition as part of the 90% review meeting, Ditesco is making another pass at the grading plan. These design changes are considered scope changes, consistent with Task 301, Amendment 1 of the contract.

Task 600 – Landscape Design
As part of the 30% Design package comments it was requested that HDR remove Landscape design services from the design. As such these were not included in the current design services contract. The CoL has since learned that minimal landscaping will be required on the south side of the building. This will include grass, three trees, and an irrigation system which is fed off the building for both power and water. In order to be efficient with this design, required design information will be documented on the Civil drawings. This is considered a change in scope to professional services.

Task 700 – Exterior Canopies & Sun Shades
The original design contained a canopy at the primary entry; however this was removed from the design as part of the 30% review. As requested by the Owner HDR updated the design and details prior to the 90% design package to reintroduce this back into the design. Electrical to update the mounting heights of the exterior wall packs per the lighting fixture schedule and exterior canopies. This is considered a change in scope to professional services.

Task 800 – Removal of Modular Mechanical Layout
Per the 6/27/18 meeting notes and 60% Design Pkg, a modular design layout was originally planned for the building mechanical system to allow for future flexibility. Per the 11/29/18 Mechanical VE meeting it was agreed that the mechanical system would be further simplified, and HDR updated to incorporate into the 90% design package. This is considered a change in scope to professional services.

The changes described above result in an increase of $40,337.00 to the total contract.

CITY OF LOVELAND WATER AND POWER

WATER QUALITY LAB FEE SPREADSHEET - FINAL DESIGN ADDITIONAL SERVICES AMENDMENT 3.1

		HDR																				
		Architectural Lead - Schwabe	Project Architect - Owens	Project Manager - Gough	Furniture Design - Dice	Designer - Fang	Mechanical Lead - Wurmlinger	Plumbing Lead - Beadle	Lab Planning Lead - Hunter	Mechanical CAD - McDonald	Electrical - Jonguitud	Electrical - Martinez	Electrical CAD - Lynch	Electrical QC - Master	Civil CAD - Keenan	Civil Lead - Humphrey	Civil EIT - Race	Hours	Labor	HDR Fee	Geotech	Total Fee
		$ 220.00	$ 160.00	$ 230.00	$ 155.00	$ 150.00	$ 198.25	$ 230.00	$ 165.00	$ 170.00	$ 109.25	$ 125.00	$ 110.00	$ 191.00	$ 90.00	$ 158.00	$ 104.00					
	Task Description																					
WATER QUALITY LAB DESIGN PHASE ADDITIONAL SERVICES																						
Tasks																						
100	Additional Meetings	7.5	4	1			4	3	4.5	3		2				1.5		30.5	$ 5,743	$ 5,743		$ 5,743
200	Furniture Design	1	8		40	4												53	$ 8,300	$ 8,300		$ 8,300
300	Controls Conversations & Development & Specs	2		1			8	8			6.5	1	1	1				28.5	$ 5,232	$ 5,232		$ 5,232
400	Electrical & Lighting Redesign		1								2	16	8	2				29	$ 3,641	$ 3,641		$ 3,641
500	Civil & Grading Updates	2	1									2	1	0.5	8	8	8.25	30.75	$ 3,898	$ 3,898		$ 3,898
600	Landscape Design	1	10									2	1	1		4	10	29	$ 4,043	$ 4,043		$ 4,043
700	Exterior Canopies & Sun Shades		16			12						2	1					31	$ 4,720	$ 4,720		$ 4,720
800	Removal of Modular Mechanical Layout						8			16		2	1	0.5				27.5	$ 4,762	$ 4,762		$ 4,762
	Hours	**13.5**	**40.0**	**2.0**	**40.0**	**16.0**	**20.0**	**11.0**	**4.5**	**19.0**	**8.5**	**27.0**	**13.0**	**5.0**	**8.0**	**13.5**	**18.3**	**259.25**				
	Fee	**$2,970**	**$6,400**	**$460**	**$6,200**	**$2,400**	**$3,965**	**$2,530**	**$743**	**$3,230**	**$929**	**$3,375**	**$1,430**	**$955**	**$720**	**$2,133**	**$1,898**		**$40,337**	**$ 40,337**		
	TOTAL FEE (ROUNDED)																		**Total Fee (rounded) =**			**$ 40,337**

Attachment B

EXHIBIT B
AMENDMENT NO. 3.2
TO AGREEMENT BETWEEN
CITY OF LOVELAND, COLORADO
AND
HDR ENGINEERING, INC.
FOR
PROFESSIONAL SERVICES FOR
WWTP WATER QUALITY LAB
HDR Project No.: 10063087

THIS IS AN AMENDMENT made as of _____May 7th_____, 2019 to the agreement between the City of Loveland, Colorado (CITY) and HDR Engineering, Inc. (HDR) dated July 24, 2017, titled WWTP Water Quality Lab.

"CITY" and "HDR" agree to amend such Agreement as follows, all other provisions of the Agreement shall remain the same.

ADD THE FOLLOWING TASKS:

PHASE III – CONSTRUCTION PHASE SERVICES
HDR shall perform services during the construction phase of the project. By performing these services, HDR shall not have authority or responsibility to supervise, direct or control the Contractor's work or the Contractor's means, methods, techniques, sequences or procedures of construction. HDR shall not have authority or responsibility for safety precautions and programs incident to the Contractor's work or for any failure of the Contractor to comply with laws, regulations, rules, ordinances, codes or orders applicable to the Contractor furnishing and performing the work.

Task 500 – Value Engineering Assistance
HDR with collaborate with the City of Loveland, RPR, and the contractor to review, develop, and incorporate value engineering options into the current set of design documents. The hours listed with the fee proposal are only a placeholder, as it is not entirely clear which disciplines or consultants will need to be involved without specific value engineering options to consider. If HDR exhausts these budgeted hours then additional work related to this task shall be considered as Additional Services.

Task 501 – Project Management and Meetings
This task includes the administrative tasks to be performed throughout the Construction Phase including:

- Plan and coordinate architecture/engineer activities.
- Assign and supervise project staff, monitor budgets, administer architecture/engineering subcontracts, and prepare monthly invoices.

- Maintain project files with equipment and material reviews, requests for information (RFIs), change order requests and other pertinent construction related information.
- Attend (1) preconstruction conference.
- Attend weekly construction progress meetings. Budgeted thirteen (13) on site meetings and all other by phone.
- Furnish owner with monthly status reports with each monthly invoice, including the status on progress and budget for each specific work task.

The Construction Phase is anticipated to be thirteen (13) months in duration. If Contractor's approach to the project requires more than 13 months completing the project, the additional work related to this task shall be considered as Additional Services.

Expenses include funds to purchase a 360 degree image camera that can be used to communicate construction activity to out of state team members. This camera will be returned to the City at the completion of the project.

Task 502 – Contractor Requests for Information (RFIs)
Interpret construction contract documents and respond to unknown or changed site conditions when requested by the City or the Contractor. Requests for clarification or information shall be in writing and distributed electronically through a document management system (Procore). Responses shall be coordinated with the RPR (Resident Project Representative) for validity of field conditions.

It is assumed that Contractor will submit (15) RFIs which will require HDR's review. The actual quantity is dependent upon Contractor's means and methods for executing the work, Contractor's diligence in reviewing the Contract Documents, and the discovery of unexpected site conditions. It is understood that the exact scope of RFI services is still somewhat undefined. HDR has budgeted hours as shown on attached fee spreadsheet to respond to RFIs. If HDR exhausts these budgeted hours then additional work related to this task shall be considered as Additional Services.

Task 503 – Submittal Review
Review equipment submittals, material documentation, test reports, manufacturer's product data, and similar information submitted by the Contractor for conformance with the Contract Documents. Review warranties and performance guarantees associated with proposed equipment and materials. Review results of independent inspections and tests including specified laboratory or manufacturer's tests. Review required certificates of inspection, testing or approval provided by a manufacturer, fabricator, supplier or distributor of materials or equipment incorporated in the work. HDR's review shall be for general conformity to the construction contract documents and shall not relieve the Contractor of any of his contractual responsibilities. Such reviews shall not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto.

It is assumed that Contractor shall prepare (40) shop drawing submittals (including re-submittals) which will require HDR's review. The actual quantity is dependent upon Contractor's means and methods for executing the work, Contractor's diligence in pre-screening manufacturer and supplier information, and the Contractor's approach to packaging shop drawings. It is understood that the exact scope of shop drawing review services is still somewhat undefined. HDR requires a list of proposed submittals at the beginning of construction in order to determine which submittals will need to be reviewed per our standard of care. It is assumed submittals will be limited to 50 pages. HDR has budgeted hours as shown on attached fee spreadsheet to respond to Submittals. If HDR exhausts these budgeted hours then additional work related to this task shall be considered as Additional Services.

Task 504 – Specialty Work Observations
This task includes 36 total hours, for on-site specialty observations and consultation services as required or requested by the City. Limited to 8 trips to site. It is understood that the actual level of effort required for these observations is dependent upon the Contractor's means and methods, expertise and diligence in executing the work. If HDR exhausts these budgeted hours then additional work related to this task shall be considered as Additional Services.

Task 505 – Start Up Assistance and Training
Review written plan prepared by Construction Manager to startup equipment and processes in an orderly, logical sequence, assisting Owner's staff with initial operation. HDR has budgeted 16 total hours for assistance with Start Up Assistance and Training. Limited to 1 (2 day) trip to site. If HDR exhausts these budgeted hours then additional work related to this task shall be considered as Additional Services.

Task 506 – Construction Record Drawings
Upon completion of the project, revise the construction drawings based on markups received by the contractor & Ditesco, and produce a set of Construction Record Drawings (CAD as well as PDFs). Submit an electronic copy created in a City supported version of CAD. HDR has budgeted hours as shown on the attached fee spreadsheet to complete Record Drawings. If HDR exhausts these budgeted hours then additional work related to this task shall be considered as Additional Services.

Task 507 – Change Order Review and Documentation
Assist the City or Contractor with reviews of requests for project changes. Document changes needed in Drawings and Specifications. It is understood that the exact scope of Change Order Review services is somewhat undefined. HDR has budgeted hours as shown on attached fee spreadsheet which includes (1) Change Order Submittals. If HDR exhausts these budgeted hours then additional work related to this task shall be considered as Additional Services.

Task 508 – Punch Walks
Upon completion of construction, a walk of the project will be conducted to determine any incomplete or incorrect items. Document items into a Punch List and provide

electronically to the City and Contractor. HDR has budgeted hours as shown on attached fee spreadsheet. If HDR exhausts these budgeted hours then additional work related to this task shall be considered as Additional Services.

Task Series 500 – Deliverables

- RFI and Submittal review comments (electronic)
- Construction Record CAD files and PDF (electronic), based on as-built drawings provided.
- Monthly Invoices with status report
- Punch List
- Specialty Work Observation Reports

Task Series 500 – Key Assumptions

- City will contract with and pay third party testing agency to perform any required testing. Materials testing frequency and location will be directed by the Resident Project Representative (RPR) and coordinated with the Contractor.
- The City will contract and pay for an independent RPR to perform construction management activities.
- The RPR will set up and maintain a Procore site for project collaboration and tracking. HDR's PTCS system will not be utilized. HDR will upload submittal comments and RFI responses via the Procore site.
- It is assumed that the RFI process and/or substitution requests for products will not be used as a means of developing design changes or coordinating value engineering efforts. Using these processes in this manner would be viewed as out of scope, and could result in additional services.
- HDR shall be responsible for only those Construction Phase services, if any, expressly required of HDR in this Agreement. With the exception of such expressly required services, HDR shall have no design, submittal review, construction observation, or any other obligations during construction, and Owner assumes all responsibility for the application and interpretation of the Contract Documents, review and response to Contractor claims, construction contract administration, processing of Change Orders and submittals, revisions to the Contract Documents during construction, construction observation and review, review of Contractor's payment applications, and all other necessary Construction Phase administrative, architectural, engineering, and professional services. Owner waives all claims against Architect that may be connected in any way to Construction Phase administrative, architectural, or professional services except as specifically related to those services that are expressly required of Architect in herein.
- RPR Key Assumptions:
  The following is a listing of the roles and responsibilities assumed of the RPR:

  - The RPR (Resident Project Representative) is the role of Ditesco.
  - Assist in interpreting the construction contract documents. Ditesco will act as the Contractor liaison. All communication between HDR, the City, and the Contractor will be coordinated through Ditesco.

- Monitor changes in the apparent integrity of the site (such as differing subsurface and physical conditions, existing structures, and encounters with unexpected site utilities) resulting from construction-related activities.
- As directed by the Owner's RPR, investigate pertinent site conditions when Contractor maintains that differing subsurface and physical conditions have been encountered, and document actual site conditions. Provide review and analysis of Contractor claims for differing subsurface and physical conditions.
- Ditesco will inspect materials, equipment, and supplies delivered to the worksite. Reject materials, equipment, and supplies which do not conform to the construction contract documents.
- As directed by the Owner's RFP, observe field tests of soils, equipment, structures, pipe and appurtenances. Review the resulting testing reports to assure conformity with the contract specifications, informing City of results as appropriate. Ditesco will complete this on a routine basis. On the chance that an item does not meet specification and cannot be resolved in the field, an alternative solution would be proposed to HDR.
- Schedule and conduct coordination meetings with the Contractor. Ditesco will create an action item log, meeting minutes, manage the submittal process, draft all WCDs (work change directives) and field orders with assistance from the City. HDR will only be engaged when necessary.
- Contractor pay applications and make recommendation for payment.
- Report to the City and HDR any work which is known to be defective, or which fails any required inspections or tests. Damaged or unapproved work or materials and equipment shall be reported to the City prior to final payment.
- Maintain a photograph file for the project and provide same to the City and HDR upon project completion. The Photo records shall include a description with the date, time and location of the photo.
    - Maintain a daily diary or log book of events at the job site, including the following information:
    - Days the Contractor worked on the job site.
    - Contractor and subcontractor personnel on job site.
    - Construction equipment on the job site.
    - Observed delays and causes.
    - Weather conditions.
    - Data relative to claims.
    - Daily activities.
    - Observations pertaining to the progress of the work.
    - Materials received on job site.
- As part of managing the Contractor's as-built documents, maintain a marked set of drawings and specifications at the job site based on personal observations and data provided by the Contractor. Provide the drawings to HDR for the Construction Record Drawings.

The changes described above result in an increase of $149,986.00 to the total contract. This change in addition to those changes outlined in Exhibit A in the amount of $40,337.00 increases the total contract value to $801,576.00.

CITY OF LOVELAND WATER AND POWER

WATER QUALITY LAB FEE SPREADSHEET - CONSTRUCTION PHASE SERVICES AMENDMENT 3.2

Task Description		HDR																	Sub- Consultants			
		Project Manager and Architectural Lead - Schwabe	Project Architect - Owens	Principal in Charge - Gough	Plumbing Lead - Beadle	Lab Planning Lead - Hunter	Mechanical Lead - Wurmlinger	Mechanical/Plumbing - CAD	Electrical Lead - Martinez	Electrical CAD - Lynch	Civil Lead - Humphrey	Civil CAD - Austin	Mech/Plumb Special Inspector	Electrical Onsite/Special Inspector	Accounting - Fuller	Hours	Labor	Total Expenses	HDR Fee	Structural Engineer Hours	Subconsultant Total	Geotech	Total Fee (With Subconsultatnts)
		$ 220.00	$ 160.00	$ 230.00	$ 230.00	$ 165.00	$ 198.25	$ 162.50	$ 125.00	$ 110.00	$ 155.00	$ 125.00	$ 178.75	$ 211.25	$ 125.00					$ 130.00			
WATER QUALITY LAB CONSTRUCTION PHASE SERVICES																							
Tasks																							
500	Value Engineering	4	6		2	2	2	4	2	2	2	2				28	$ 4,706.50	$ 100	$ 4,806.50				$ 4,806.50
501	Project Management and Meetings															0	$ -	$ 2,050	$ 2,050.00				$ 2,050.00
	General PM Activities	40	101	13											26	180	$ 31,200.00	$ -	$ 31,200.00	12	$ 1,560		$ 32,838.00
	Preconstruction Meeting		4													4	$ 640.00	$ -	$ 640.00				$ 640.00
	OAC Meetings - Phone	12	40													52	$ 9,040.00	$ -	$ 9,040.00				$ 9,040.00
	OAC Meetings - On Site	18	78													96	$ 16,440.00	$ -	$ 16,440.00				$ 16,440.00
502	RFIs		16		12	12	12		8		4					64	$ 11,299.00	$ -	$ 11,299.00	4	$ 520		$ 11,845.00
503	Submittal Review		51		28	16	28		24		12					159	$ 27,651.00	$ -	$ 27,651.00	12	$ 1,560		$ 29,289.00
504	Specialty Work Observations												24	12		36	$ 6,825.00	$ 800	$ 7,625.00	12	$ 1,560		$ 9,263.00
505	Start Up Assistance and Training					16										16	$ 2,640.00	$ 1,500	$ 4,140.00		$ -		$ 4,140.00
506	Record Drawing Support		24			8		16		8		8				64	$ 9,640.00	$ -	$ 9,640.00	8	$ 1,040		$ 10,732.00
507	Change Orders		12		4	6	4	6	4	2						38	$ 6,318.00	$ -	$ 6,318.00		$ -		$ 6,318.00
508	Substantial Completion Review and Punch List		12			8					3		20	10		53	$ 9,392.50	$ 2,100	$ 11,492.50	8	$ 1,040		$ 12,584.50
	Hours	**74**	**344**	**13**	**46**	**68**	**46**	**26**	**38**	**12**	**21**	**10**	**44**	**22**	**26**	**790**				**0**			
	Fee	**$16,280**	**$55,040**	**$2,990**	**$10,580**	**$11,220**	**$9,120**	**$4,225**	**$4,750**	**$1,320**	**$3,255**	**$1,250**	**$7,865**	**$4,648**	**$3,250**		**$ 135,792.00**	**$6,550**	**$ 142,342.00**	**56**	**$ 7,280**		
	TOTAL FEE (ROUNDED)																			**Total Fee (rounded) =**			**$ 149,986**

LOVELAND UTILITIES COMMISSION

AGENDA ITEM: 8
MEETING DATE: 5/15/2019
SUBMITTED BY: Tanner Randall PE
STAFF TITLE: Senior Civil Engineer

ITEM TITLE:

Water Distribution Master Plan Overview

DESCRIPTION:

This item reviews the City's effort over the last couple of years to update its computer water model and how the results have shaped the latest Water Distribution Master Plan. The presentation will be a high level review of the contents of the plan.

SUMMARY:

The City of Loveland attempts to update its water master plan approximately every 10 years. The water master plan serves as a roadmap for staff in how to operate the existing system, make operational improvements, and it identifies the location and size of future distribution piping required for future developments.

Due to numerous changes and additions in the water distribution system over the past decade, the City began updating its hydraulic water model, InfoWater, in 2015. After a multi-year update, the completed water model was the backbone for the update of the water waster plan. The previous water master plan had been compiled in 2009. In addition to the City's goal of 10-year master plan updates, many of the projects identified in the 2009 plan have been completed. Therefore, with the help of Jacobs (formerly CH2MHill) the City embarked on a full scale update of the master plan.

Included in the update was a full review of how the system currently operates and a compilation of customers current water use. Additionally the master plan projects water demands into the future based on estimated growth rates and locations where growth is expected to occur. Utilizing this data, current and future demands are computed, then the required infrastructure is determined in order to meet the future demands. The future infrastructure is then planned based on expected growth rates. These projects form the backbone for planning and especially help set the 10-year capital improvement plan budget.

In addition to guiding the 10-year budget, planning for the system has been completed to full build out of the water service territory and is consistently being monitored for its accuracy.

Staff will share with the LUC the key findings identified in the water model update and water master plan update.

RECOMMENDATION:

Staff item only. No action required.

ATTACHMENTS:

- Attachment A: Presentation Slides

Attachment A

LOVELAND UTILITIES COMMISSION

Water Master Plan Update Overview

Tanner Randall P.E., Senior Civil Engineer

May 15, 2019

Water Model & Masterplan Update

- Why We Master Plan
- Overview of Existing System
- Water Model
- Capital Planning

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Master Plan Purpose

- Why We Master Plan
  - Roadmap For Utility Planning
    - Plant Capacity
    - Water Usage
    - Triggers for Improvements
    - Operational Changes
  - Determines Pipe Sizes for Proposed Developments
  - Critical for 10 Year (& Beyond) Capital Planning
  - Update Approximately Every 10 Years
  - Complete Plan for Present Until System Fully Built Out
  - **Ensure Existing & Future Customers have Sufficient & Reliable Water**

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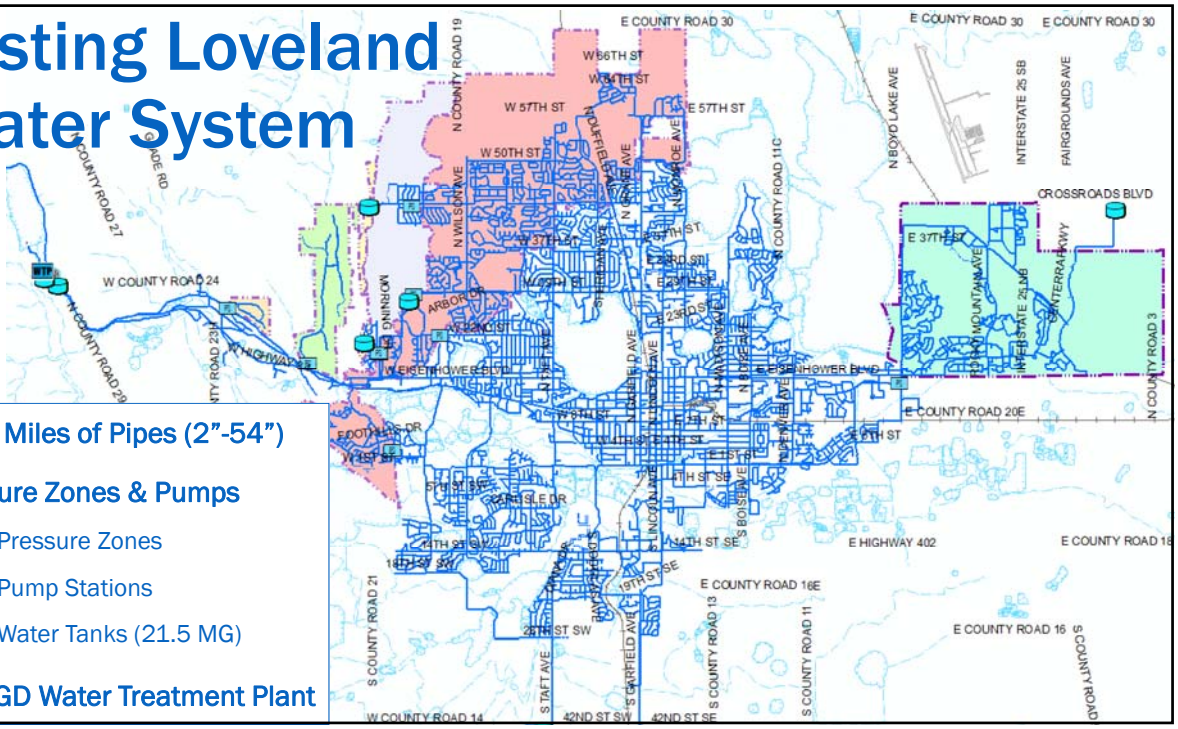
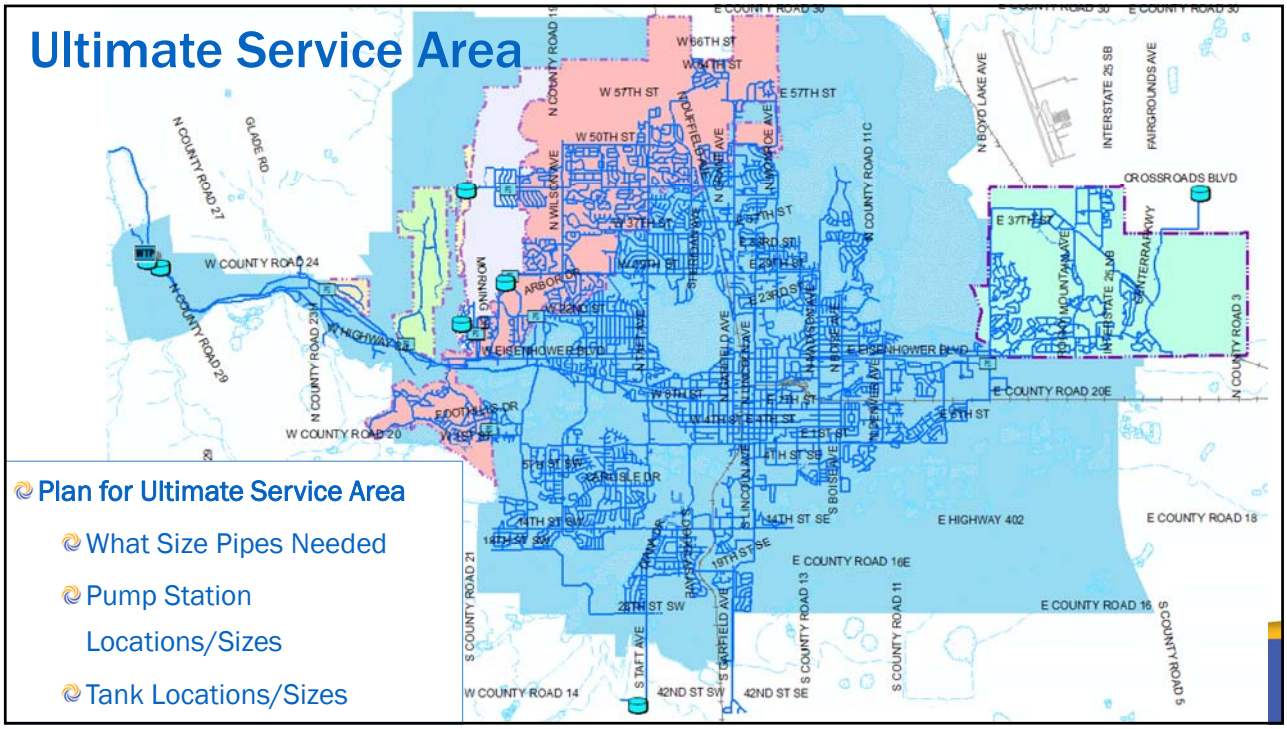
Existing Loveland Water System



- ~436 Miles of Pipes (2”-54”)
- Pressure Zones & Pumps
  - 6 Pressure Zones
  - 7 Pump Stations
  - 7 Water Tanks (21.5 MG)
- 38 MGD Water Treatment Plant

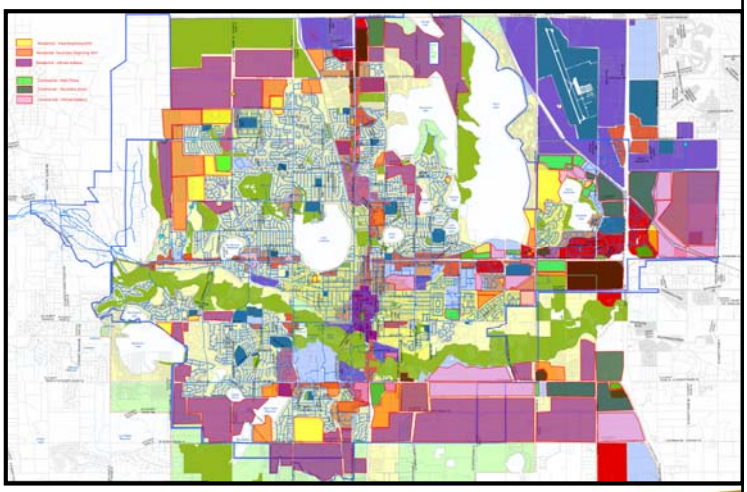
Ultimate Service Area



- Plan for Ultimate Service Area
  - What Size Pipes Needed
  - Pump Station Locations/Sizes
  - Tank Locations/Sizes

Planning for System Expansion

- Current Use Rates
  - Average & Peak Day Demand
  - Customer Usage
  - Diurnal Curves
  - Trends
- Future Use Rates
- Incorporate Comprehensive Plan
  - Proposed Land Uses
  - Densities



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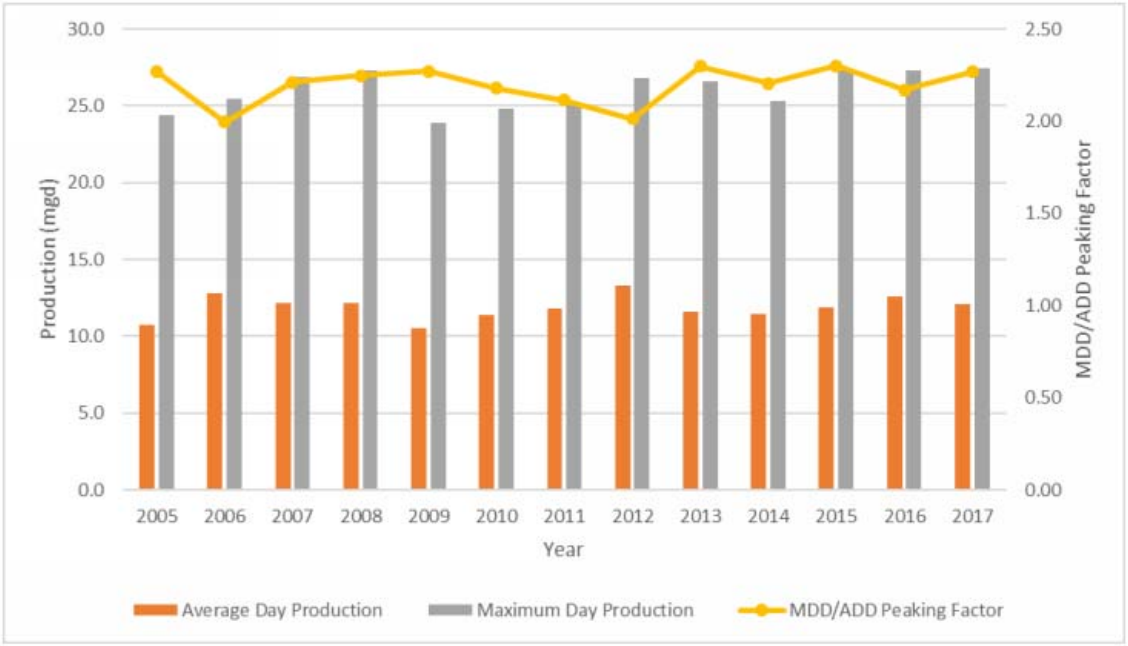
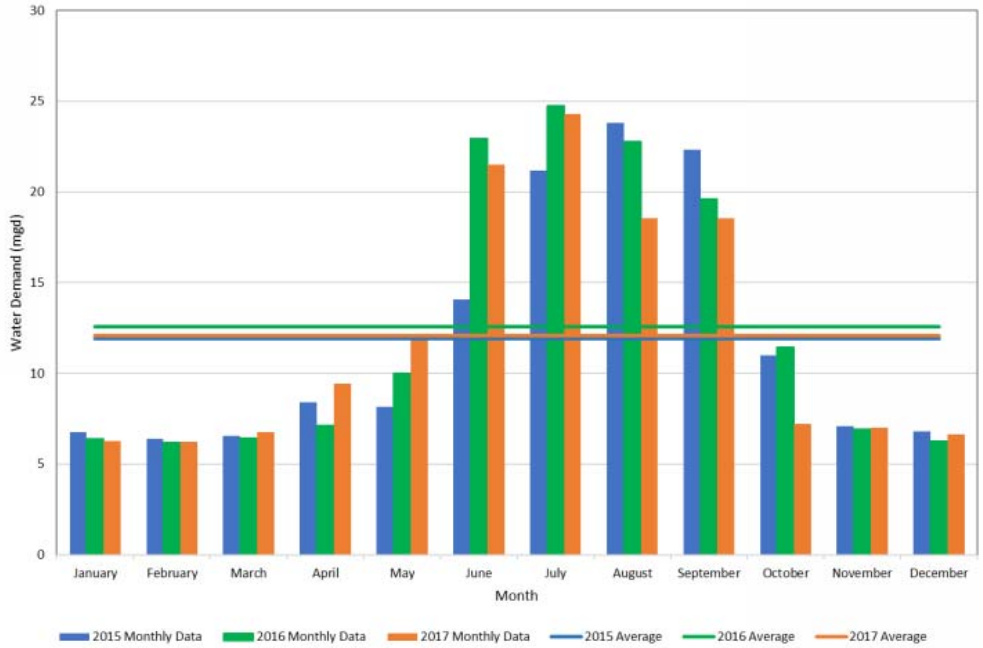
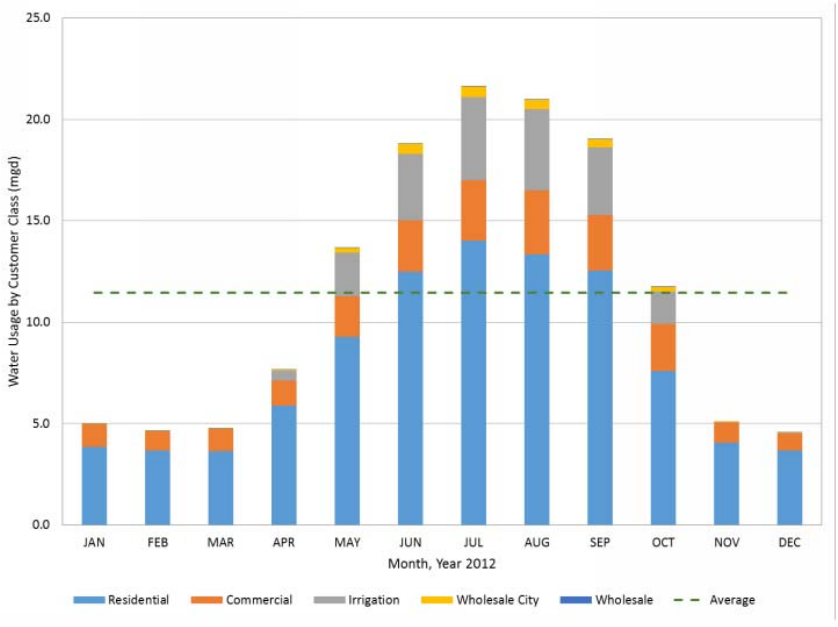
Historical Loveland Annual Water Production



Monthly Water Demand



Tracking Water Usage per Customer Class - 2012



- Dry Precipitation Year
  - Increased Water Usage
  - More Irrigation
  - Higher Average Usage
- Yearly Variations vs. Trends

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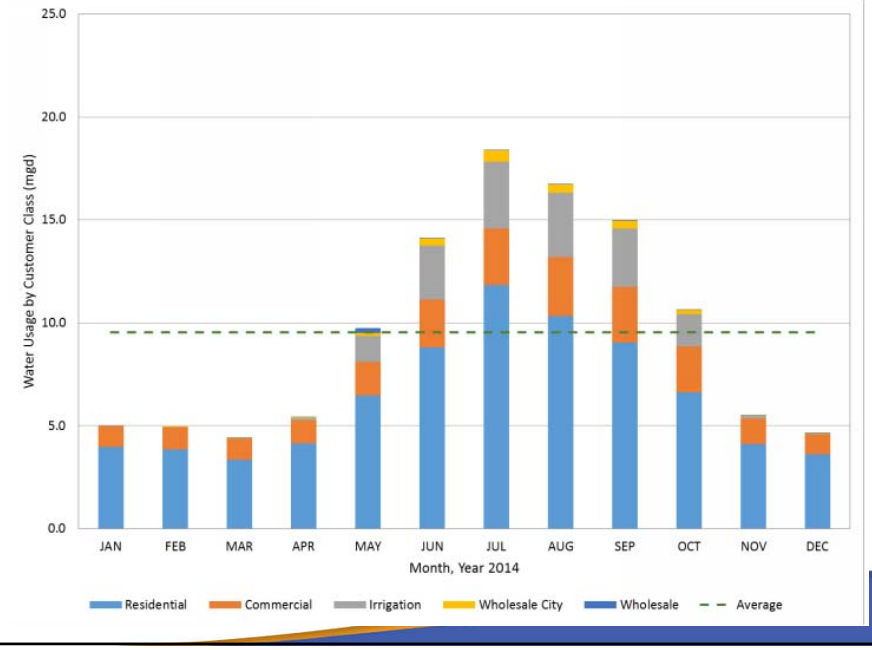
Tracking Water Usage per Customer Class - 2014



- Wet Precipitation Year
  - Decreased Water Usage
  - Less Irrigation from Residential
  - Lower Average Usage
- Yearly Variations vs. Trends

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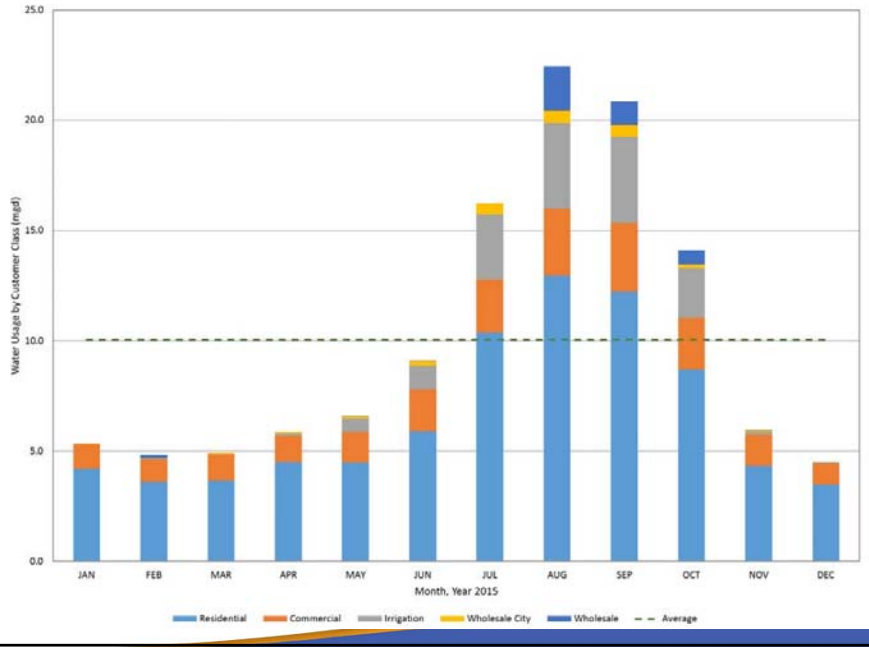
Tracking Water Usage per Customer Class - 2015



- "Average" Precipitation Year
  - Increased Wholesale Water Usage
  - Average Usage
- Yearly Variations vs. Trends

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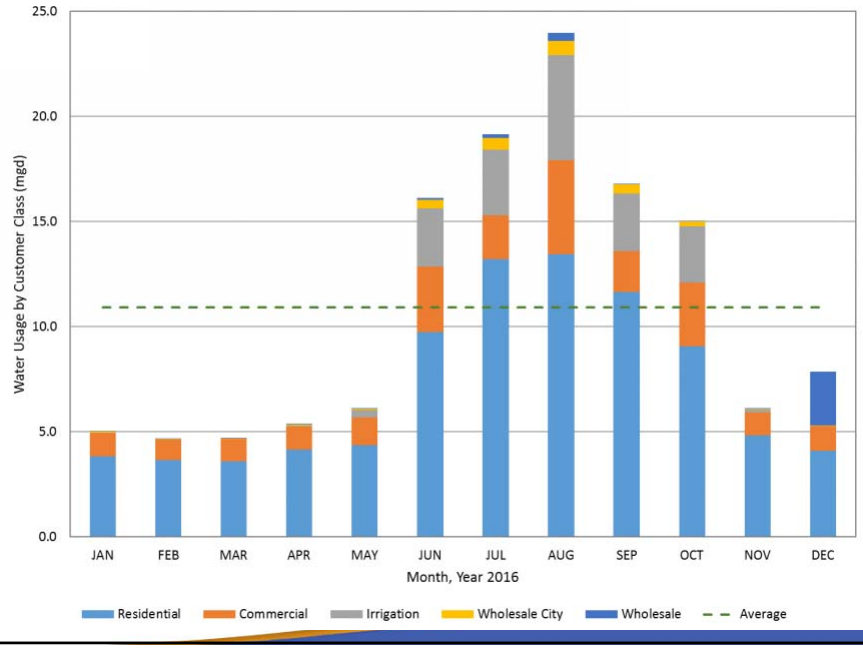
Tracking Water Usage per Customer Class - 2016



- Peak Month Usage
- Average Usage Up
- Yearly Variations vs. Trends

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Demand & Peaking Factor by Customer Class

Dry Year

Customer Class	ADD (mgd)	%ADD	MMD (mgd)	%MMD	MDD (mgd)[1]	Peaking Factor (MDD/ADD)
2012						
Residential[2]	9.10	68.31%	14.02	64.82%	17.38	1.91
Commercial[3]	2.13	15.98%	2.96	13.67%	3.67	1.72
Irrigation	1.84	13.84%	4.11	18.98%	5.09	2.76
WC[4]	0.24	1.82%	0.52	2.42%	0.65	2.68
WH[5]	0.01	0.04%	0.02	0.11%	0.03	5.59
Total	**13.33**	--	**21.64**	--	**26.82**	**2.01**
2016						
Residential[2]	7.17	65.38%	13.44	56.05%	15.30	1.86
Commercial[3]	1.88	17.16%	4.48	18.70%	5.10	2.36
Irrigation	1.42	12.90%	5.00	20.84%	5.69	3.50
WC[4]	0.23	2.05%	0.68	2.82%	0.77	2.98
WH[5]	0.27	2.50%	0.38	1.59%	0.43	1.38
Total	**10.97**	--	**23.98**	--	**27.30**	**2.17**

Broad Takeaways:

-Seasonal Variations affect year to year numbers

-Variations Between Customer Class over the Year vs. Max Month

-Peaking Factors, Usage Rates, & Growth Rates must be Averaged over Periods of Time

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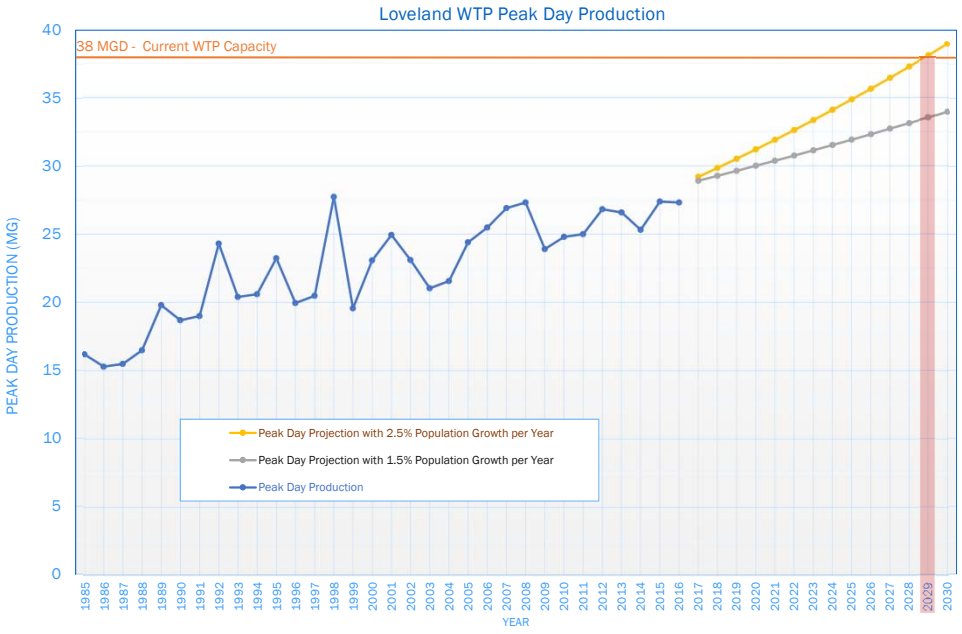
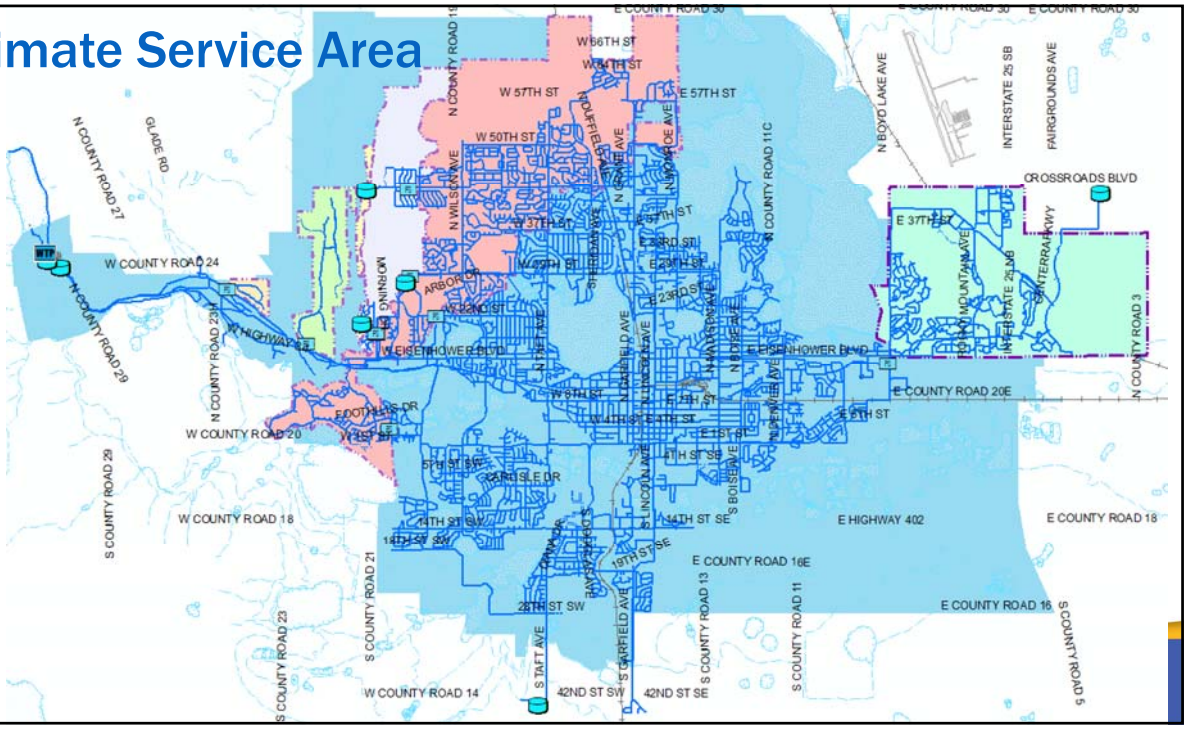
Projecting Forward

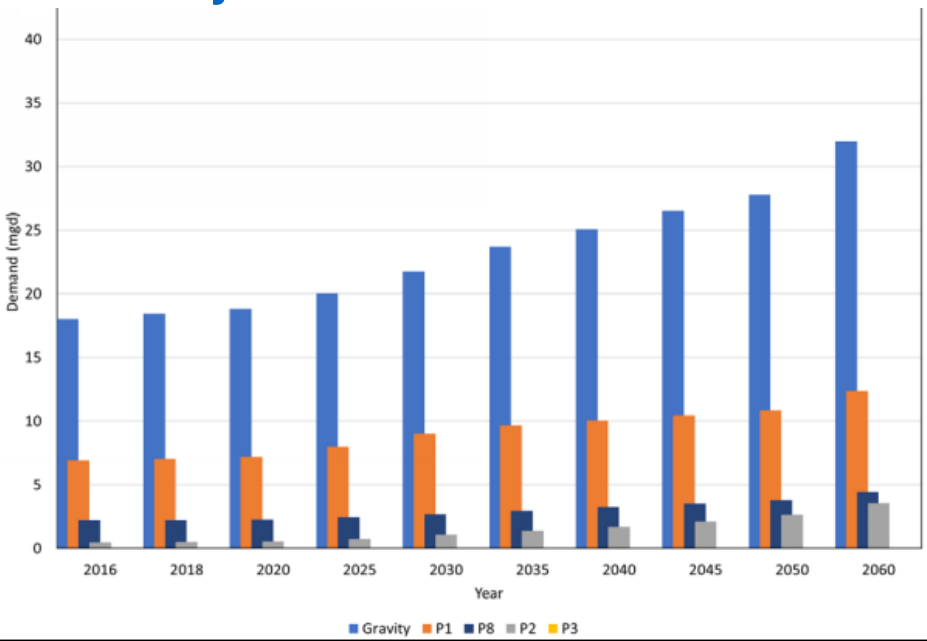
- Where Will Growth Occur
- Growth Rates
  - 1.5% Growth
  - 0.5% Water Conservation for 10 years
  - 40 MGD by 2040
- Rates Must be Projected per Pressure Zone



Ultimate Service Area



Growth Projections & Demand Per Pressure Zone



Broad Takeaways:

-Future Use Not Only Affects Raw Water Amounts and Reservoirs

-WTP Capacity

-Each Pressure Zone Pipe, Pump, & Tank Capacity

-Current Ultimate Projected Peak of 66 MGD.

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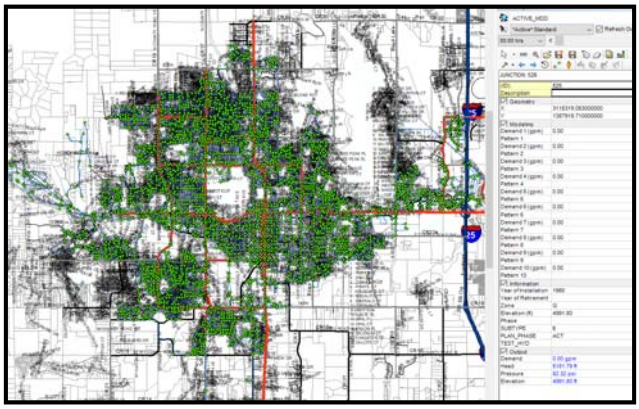
S COMMISSION

Hydraulic Water Model

- Water Model
  - Overview
    - Every Pipe in the System – GIS Data
    - Pump, Pipes, Water Tanks, Interconnects
  - Construct Model & Calibrate
  - Current & Future Demands
  - Help Identify Operational Concerns
  - Help Identify Masterplan Projects



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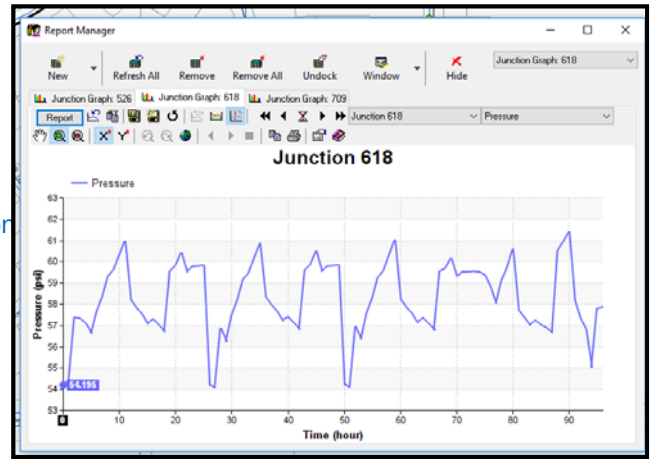
Hydraulic Water Model - Current

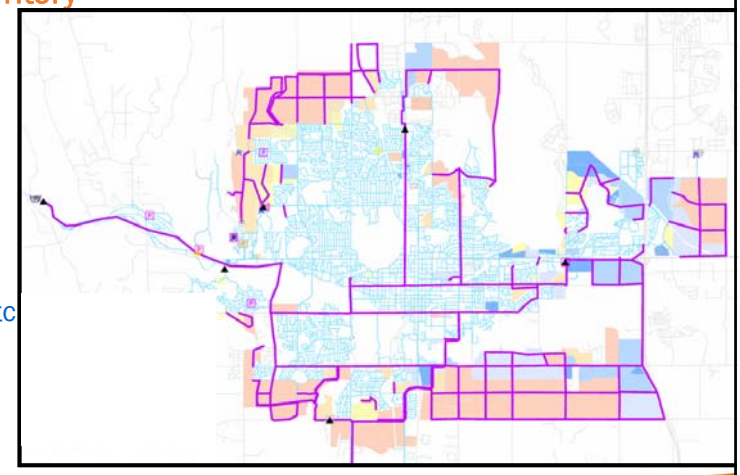
- Accuracy
  - SCADA Data – Pumps, Tanks, etc.
  - Water Meter Data
    - Monthly Data for Every Meter Averaged
  - Run Simulations Comparing Modeled Situation to Actual Data
- System Analysis
  - Additional Pumping Needs
  - Low/High Water Pressure
  - Water Age (Quality)
  - System Functionality



LOVELAND UTILITIES COMMISSION

Hydraulic Water Model – Full Build Out

- All Undeveloped Land in Service Territory
  - Assumed Demand
    - Residential: 1,400 pgd/acre
    - Commercial 480 gpd/acre
  - Diurnal Curves
    - When People Use Water
  - Propose Pipe Sizes, Tank Locations, etc
    - Monthly Data for Every Meter Averaged
  - Optimatics
    - Cloud Based Software Runs 1,000's of Scenarios for Given Criteria



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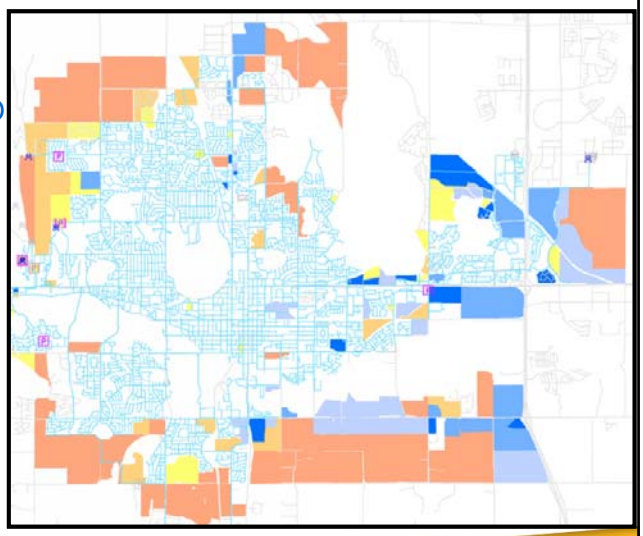
Hydraulic Water Model – Interim

- Look at Interim Demands /Improvements
  - Incremental Steps from 28 MGD - 66 MGD
  - "Crystal Ball" on Timing & Areas of Growth
  - Triggers for Utility Improvements
  - What Demand (& Where) Prompts:
    - Tanks
    - Pipelines
    - Pump Stations



LOVELAND UTILITIES COMMISSION

Capital Planning

Looking For:

- Current Needs
- 10-20 Year Planning Window
  - Meet Interim Demand Points
- Ultimate Planning
  - Ultimate Planning

Utilize:

- Utilize Model Results
- Engineering Judgement
- Available Budget Resources
- Levels of Service
  - Pressure
  - Recommended Thresholds
    - Available Storage
  - Redundancy

LOVELAND UTILITIES COMMISSION

Capital Planning Overview

Planned Piping:

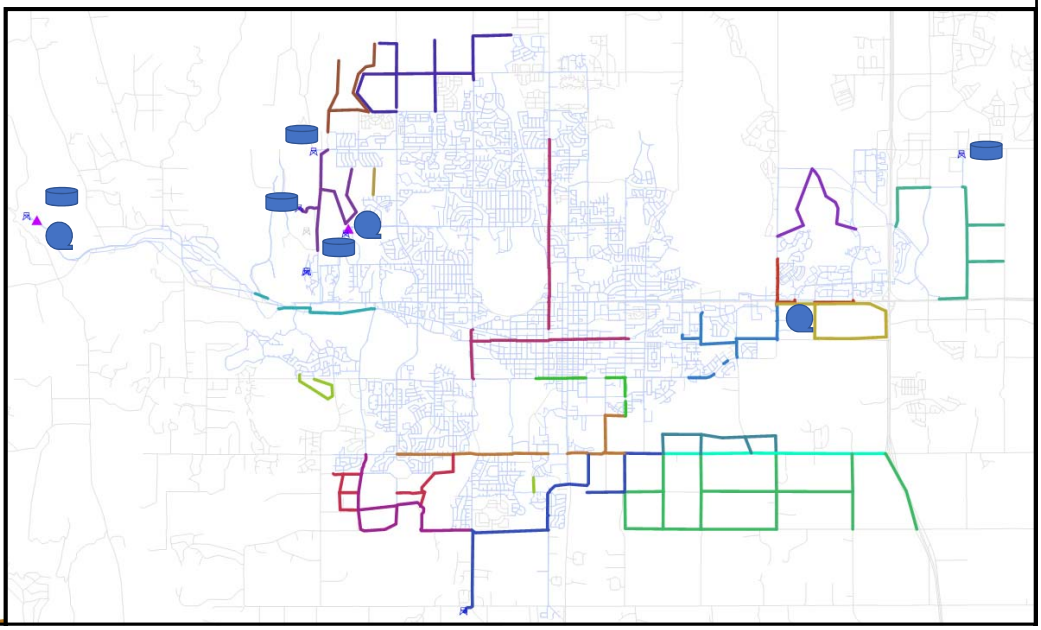
-Shown Pipes Meet Ultimate Loveland Buildout

-Just Based on Capacity Needs (Condition Projects Separate)

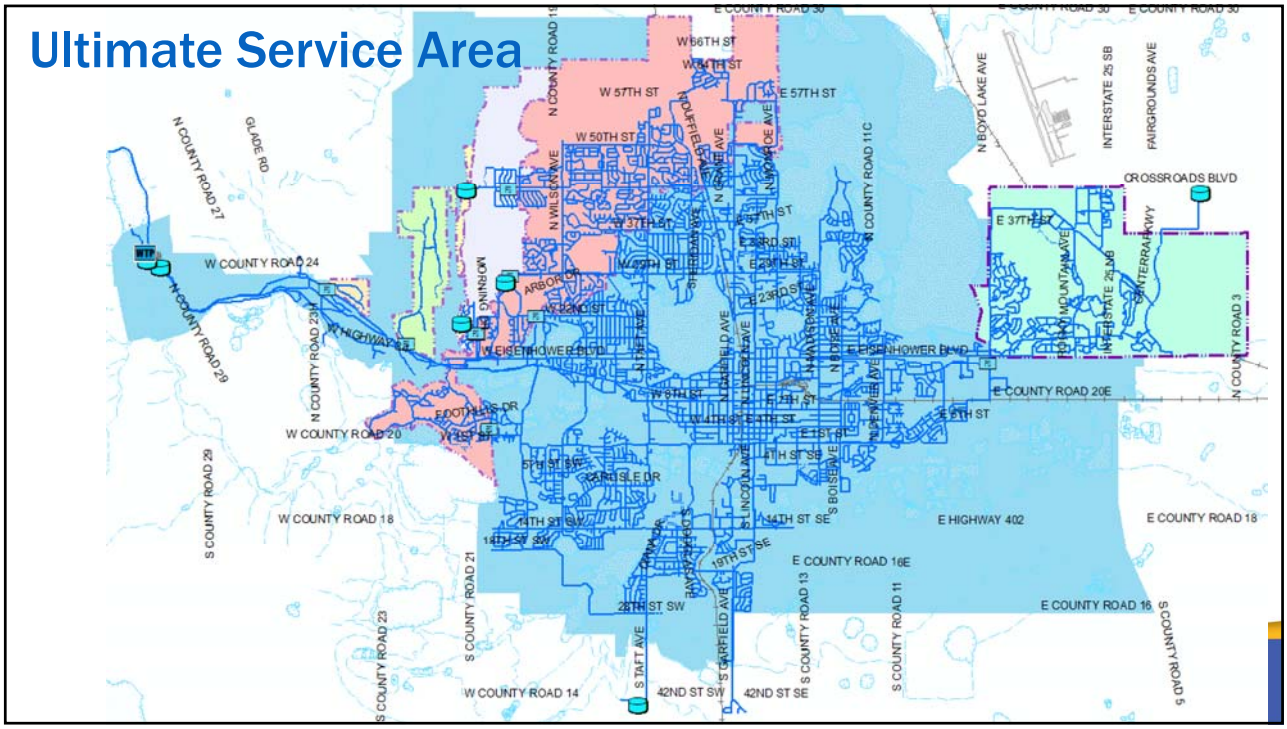
-Many Lines to be Built by Development & Reimbursed

-"Backbone" Pipes (Smaller Pipes not Shown)

-Conceptual Estimate of Project



Ultimate Service Area



Planning to Budgeting

Project	Proj #	Type	2023	2024	2025	2026	2027	2028	2029	5-Year Total (2020-2024)	10-Year Total (2020-2029)	Raw Water	General Unrestricted	SIF - Restricted
TRANSMISSION/DISTRIBUTION PROJECTS														
0	0	0	0	0	0	0	0	0	0	0	0	0%	0%	0%
East Gravity Zone 24" Phase 1a St Louis Design/SDC	0	Design/SDC	0	0	0	0	0	0	0	100,000	100,000	0%	20%	80%
East Gravity Zone 24" Phase 1b St Louis Design/SDC	0	Design/SDC	0	0	0	0	0	0	0	408,830	408,830	0%	20%	80%
East Gravity Zone 24" Phase 1 St Louis Construct	0	Construct	0	0	0	0	0	0	0	2,608,340	2,608,340	0%	20%	80%
East Gravity Zone 36" Phase 2 28th St SW Taft to Garfield Design/SDC	0	Design/SDC	679,800	0	0	0	0	0	0	1,331,880	1,331,880	0%	20%	80%
East Gravity Zone 36" Phase 2 28th St SW Taft to Garfield Construct	0	Construct	6,797,970	0	0	0	0	0	0	6,797,970	6,797,970	0%	20%	80%
East Gravity Zone 36" Phase 3 Garfield to 402 Design/SDC	0	Design/SDC	0	0	0	0	0	1,325,350	1,381,680	0	2,707,030	0%	20%	80%
East Gravity Zone 36" Phase 3 Garfield to 402 Construct	0	Construct	0	0	0	0	0	0	13,816,820	0	13,816,820	0%	20%	80%
0	0	0	0	0	0	0	0	0	0	0	0	0%	0%	100%
16" in Granite (57th to 50th) (Ranch Acres) Design/SDC	0	Design/SDC	0	0	43,340	45,190	0	0	0	0	88,530	0%	50%	50%
16" in Granite (57th to 50th) (Ranch Acres) Construct	0	Construct	0	0	0	564,820	0	0	0	0	564,820	0%	50%	50%
0	0	0	0	0	0	0	0	0	0	0	0	0%	10%	90%
402 Waterline Extension Design/SDC	0	Design/SDC	0	0	0	0	0	0	0	163,020	163,020	0%	0%	100%
402 Waterline Extension Design/SDC	0	Design/SDC	770,440	803,180	0	0	0	0	0	1,573,620	1,573,620	0%	0%	100%
402 Waterline Extension Construct	0	Construct	0	10,039,760	0	0	0	0	0	10,039,760	10,039,760	0%	0%	100%
0	0	0	0	0	0	0	0	0	0	0	0	0%	0%	100%
16" PB Extension (South of 34, Lot 1) Design/SDC	0	Design/SDC	0	0	0	0	0	0	0	48,000	48,000	0%	0%	100%
16" PB Extension (South of 34, Lot 1) Construct	0	Construct	0	0	0	0	0	0	0	300,000	300,000	0%	0%	100%
16" PB Extension (South of 34, Lot 2) Design/SDC	0	Design/SDC	0	0	0	0	0	0	0	52,170	52,170	0%	0%	100%
16" PB Extension (South of 34, Lot 2) Construct	0	Construct	0	0	0	0	0	0	0	326,040	326,040	0%	0%	100%
16" PB Extension (South of 34, Lot 3) Design/SDC	0	Design/SDC	108,770	0	0	0	0	0	0	108,770	108,770	0%	0%	100%
16" PB Extension (South of 34, Lot 3) Construct	0	Construct	679,800	0	0	0	0	0	0	679,800	679,800	0%	0%	100%

- Balancing Act of Working within a Budget to Ensure Excellent Service to Customers
- Improvements Completed Prior to Need

LOVELAND UTILITIES COMMISSION

Water Master Plan Overview

-Closely Monitoring Usage Trends

-Regular Inventory of System & Performance

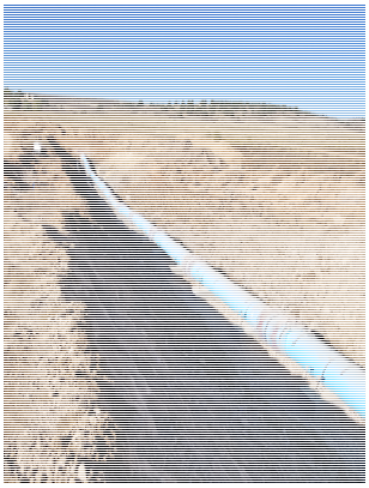
-Loveland Comprehensive Plan (Growth) & Department Projections

-Industry Recognized Guidelines

-Masterplan for Ultimate Water Service Territory

  -Congruent with Planning & Raw Water

-Budget Improvements



LOVELAND UTILITIES COMMISSION

QUESTIONS?

LOVELAND UTILITIES COMMISSION

AGENDA ITEM: 9
MEETING DATE: 5/15/2019
SUBMITTED BY: Michelle Erickson
STAFF TITLE: Technical Specialist

ITEM TITLE:

2018 Water Loss Audit

DESCRIPTION:

This item reviews the results of the 2018 Water Loss Audit and the progress made to improve the water tracking methods, and the actions taken or identified to better manage or reduce non-revenue water.

SUMMARY:

The Water and Power Department completed its fourth annual Water Loss Audit using AWWA's methodology presented in the *Water Audits and Loss Control Programs, Manual of Water Supply Practices M36* by gathering information from existing records, procedures, and databases to categorize where water entered and exited the LWP distribution system during the 2018 calendar year. A water loss audit tracks all sources and uses of water within a water system over a specified period and is summarized in a Water Balance Table (see Attachment A). The Water Balance Table is based on the theory that all water placed into a distribution system would equal all the water taken out of a distribution system. The sum of each column of components in the Water Balance Table are equal and therefore "balance."

The water audit can help reveal and clarify inefficiencies in water delivery and revenue generation and answer questions such as: How much water entered the water system? For what purposes was the water used? What types of water loss occurred? How much water was lost? What was the financial cost of water loss? What was the volume and the financial cost of non-revenue water? Our goals in performing these water audits are to identify areas in which we can reduce water losses, improve data validity and decrease non-revenue water where practical and feasible.

Staff will share with the LUC the key findings and improvements made as identified in the 2018 Water Loss Audit Report. Please see the attached 2018 Water Loss Audit Report for detailed information on each part of the audit.

RECOMMENDATION:

Staff item only. No action required.

ATTACHMENTS:

- Attachment A: 2018 Water Loss Audit Report
- Attachment B: Presentation slides

Attachment A

AUDIT OF:	Loveland Water and Power's Water Distribution System
AUDIT PERIOD:	Jan 1, 2018 – December 31, 2018
COMPILED BY:	Michelle Erickson, Technical Specialist

Summary:
A water loss audit tracks all sources and uses of water within a water distribution system over a specified period of time. Loveland Water and Power (LWP) completed its fourth annual Water Loss Audit using AWWA's methodology presented in the *Water Audits and Loss Control Programs, Manual of Water Supply Practices M36* by gathering information from existing records, procedures, and databases to calculate and estimate how much and where water entered and exited the LWP water distribution system during the 2018 calendar year.

Water Balance Table Explanation:
The water balance table is a way of showing how much water LWP had in our water system during the audit period and what category each portion falls into based on where the water exited the system. Each column of the Water Balance Table adds up to the same amount, but is divided out into different categories – like taking the same amount of water, but dividing it out into different buckets.

The water audit begins with determining the system input volume – the sum of the water produced, adjusted for tank storage changes (Volume from Own Sources) plus the amount of water received from neighboring water districts (Water Imported). We then determine how much water was supplied to the distribution system by deducting out the water sold to neighboring water districts (Water Exported).

Then we break it out into authorized consumption or water losses. Authorized consumption is further broken down into how much was billed vs unbilled and then how much of each of those categories was metered verses unmetered.

Water losses are broken down into either apparent losses or real losses. Apparent losses occur when water reaches an end consumer, but is either not billed at all or not fully billed. Real losses occur when water does not reach an end consumer, but is lost due to leaks or overflows somewhere in the water distribution system.

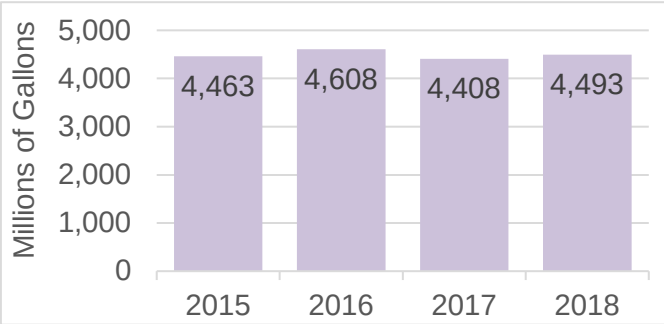
The final column of the water balance table splits out the amount of water for which LWP received revenue (Revenue Water) from the amount that for which LWP did not receive revenue (Non-Revenue Water).

Water Balance Table
Loveland Water & Power • 2018 Calendar Year
Volume in Million Gallons

Volume from Own Sources *(Corrected for known errors)* 4,492.857	**System Input Volume** 4,500.900	**Water Exported** *(Corrected for known errors)* 69.047	**Billed Water Exported** 69.047			**Revenue Water** 69.047
		Water Supplied 4,431.853	**Authorized Consumption** 3,893.145	**Billed Authorized Consumption** 3,843.638	**Billed Metered Consumption** 3,843.610	**Revenue Water** 3,843.638
					Billed Unmetered Consumption 0.028	
				Unbilled Authorized Consumption 49.507	**Unbilled Metered Consumption** 0.015	**Non-Revenue Water** *(NRW)* 588.215
					Unbilled Unmetered Consumption 49.492	
			Water Losses 538.708	**Apparent Losses** 102.381	**Unauthorized Consumption** 11.080	
					Customer Metering Inaccuracies 81.692	
					Systematic Data Handling Errors 9.609	
Water Imported *(Corrected for known errors)* 8.043				**Real Losses** *Includes Leakage/Overflows on:* • *Transmission & Distribution Mains* • *Water Storage Tanks* • *Service Connections up to the point of Customer Metering* 436.327		

2018 WATER LOSS AUDIT REPORT

Volume from Own Sources 4,492.857 MG



The amount of water entering the water distribution system during the audit period.

The water tank storage levels dropped from 12.981 MG at the end of 2017 to 10.832 MG at the end of 2018. This additional 2.149 MG that entered the water distribution system, but was not produced at the water treatment plant (WTP) is added to the amount of water produced at the water treatment plant to determine the volume from own sources.

The WTP effluent meter that measures the amount of water entering the distribution system is configured in such a way that it cannot be removed for meter testing. To test the accuracy of this meter, on April 26, 2018 staff performed a drawdown test on the Chasteen's Tank located just before this meter. For this test, staff compared the results of the following:

1. **Tank Volume:** Staff calculated the volume of water that went into the distribution system based on dimensions of the tank and how much the tank level dropped.
2. **Strap-on Meter:** We measured the water leaving the Chasteen's tank with a strap-on ultrasonic meter.
3. **Distribution System Source Meter:** We looked at the start and end readings of the 30" mag meter.

The strap-on meter was within 0.55% of the calculated volume based on the tank levels. The source meter was 3.85% above the calculated volume. Based on these results, we believe the source meter to be over-registering the actual amount of water entering the distribution system and have adjusted the water supplied volume down accordingly.

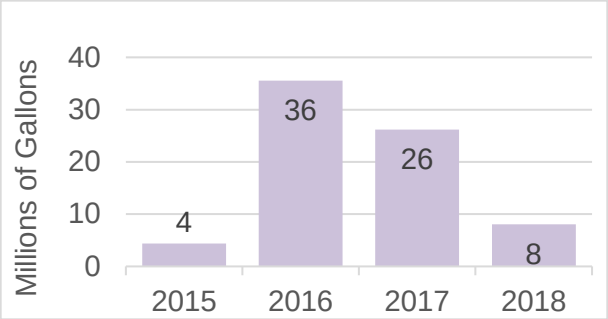
As an additional measure to verify the amount of water going into the distribution system from the water treatment plant, we verified the amount metered going into the distribution system against what entered the water treatment plant less the water removed during the treatment process. Based on meter readings in 2018, 3.92% less water was measured to enter the water treatment plant than what left plant (before adjusting for meter accuracy errors), either by returning to the river, evaporating or entering the distribution system. Approximately 3.85% of this 3.92% difference could be attributed to the over registration of the distribution system source meter.

In 2018, we calibrated the electronic components on the meters that measure the water going into the water treatment plant from the reservoir. Tech Services is working on getting the water meters calibrated that measure the water coming into the plant from the river and the water that exits the plant and enters the distribution system.

In March of 2018, staff discovered while exercising a valve and performing a pipe inspection of the 54" diameter line from the Big Thompson River to the Water Treatment Plant that there was a steady flow of water coming in at the head of the plant, but after the

raw water source meter. After some investigation, staff determined that this water was decant water off the ponds up the hill. The valve is now closed to cut off this flow. The double counting of this water, would account for at least a portion of the remaining difference between the water measured as entering and exiting the plant.

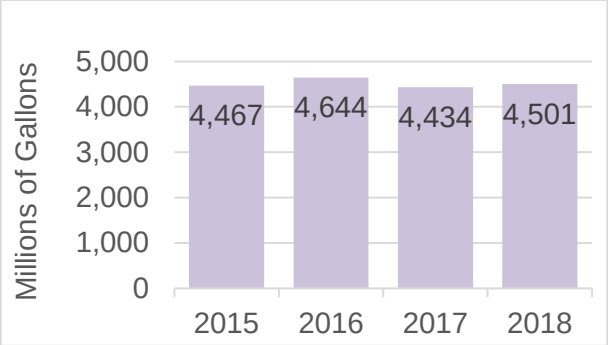
Water Imported 8.043 MG



Bulk water purchased from neighboring water utilities, metered at the transfer point called an interconnection.

This amount comes from the December 2018 Wholesale Water Revenue Analysis Report.

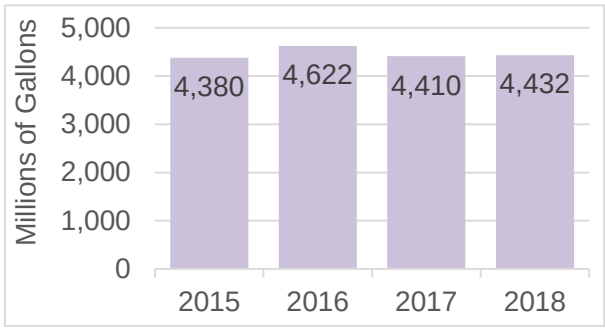
System Input Volume 4,500.900 MG



This is the volume of water introduced to the water distribution system over the audit period and includes any bulk water exported to neighboring water systems.

This is the sum of volume from own sources (water produced at the WTP and adjusted for changes in water tank storage levels) plus water imported from neighboring water districts.

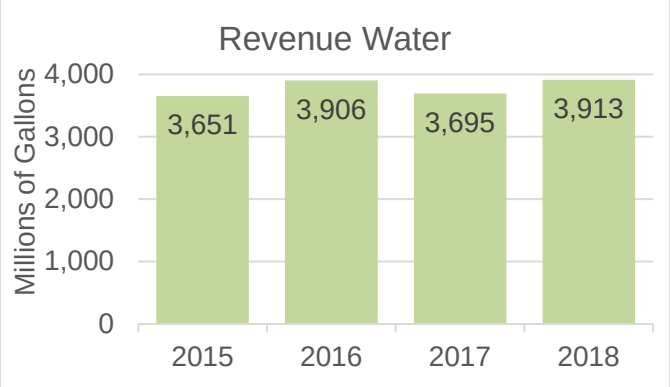
Water Supplied 4,431.853 MG



The volume of treated and pressurized water put into the water distribution system during the audit year.

It is calculated as the system input volume less the water exported to other water systems.

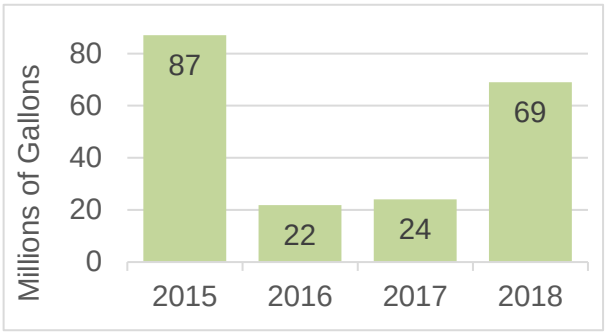
Revenue Water 3,912.685 MG



Any water that generates revenue for the utility.

Revenue water is highly dependent on whether conditions. During hot dry years, we produce more water for irrigation and have higher revenue water. Conversely, during cold wet years, we produce less water for irrigation and have lower revenue water. Revenue water is comprised of the following categories:

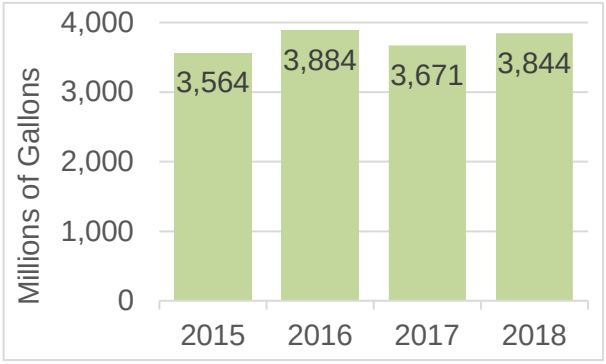
1. Water Exported 69.047 MG



Bulk water sold to neighboring water systems located outside the service area.

This amount comes from the December 2018 Wholesale Water Revenue Analysis Report

2. Billed Metered Consumption 3,843.610 MG



Water consumption that generates revenue, the volume of which is determined by a water meter.

Billed metered consumption comprised 83% of the 4,432 MG water supplied into the distribution system during 2018.

Utility Billing provided all meter readings done during the audit period and for the month before and after the audit year. From this data, we excluded any water imported or exported through interconnects to neighboring water districts, since this is accounted for elsewhere in the audit. There is some customer overlap with our neighboring water districts (Little Thompson Water District and with Fort Collins-Loveland Water District) in which one utility provides the water to a customer, but for which the customer is billed for water, sewer or both from another water provider. We subtracted out any consumption of water that was provided by neighboring water districts, but which LWP billed and added in water that LWP provided that was billed out by other water providers. Consumption reads that overlapped with either the year prior or after the audit year were prorated based on the portion of days falling in the audit year. This method assumes that approximately the same amount of water is used per day by our customers.

We discovered some errors in the consumption report from Utility Billing in which the customer was billed for the right amount of water, but in which the water listed on the consumption report was incorrect such as in the following instances:

- **Meter Reading Errors:** There were instances in which the customer was billed correctly, but the gallons listed as being consumed were inaccurate such as when a high consumption month is followed by a negative reading month, but averaging the reads is the normal consumption for the location. In these instances, the consumption was averaged over the two months. We excluded the very high reads uncharacteristic of the location that were meter reading errors or very negative reads not billed to customers.

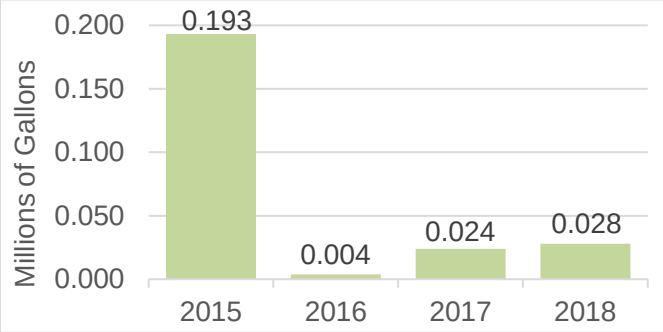
- **Meter Exchanges:** There were a few instances in which when a meter in service was replaced, the final total reading of how much water had ever gone through the meter or the difference in total reads between the new and old meter were entered on the consumption report rather than the amount of water consumed since the last reading. These readings were corrected to be the actual amount consumed and billed to the customer.

- **Final Reads:** When switching who to bill at a location, there were some instances in which the final total reading of how much water had ever gone through the meter was put into the consumption report. These readings were corrected to be the actual amount consumed and billed to the customer.

In total these consumption report errors totaled 37 MG. We will be working with the Utility Billing staff to review these errors and see what training can be done to avoid these errors from occurring in the future. These errors most likely existed on prior audits, but were not corrected.

During this audit, we discovered that construction water was not included in the consumption reports from Utility Billing had not been included in prior audits. Construction water is the initial water furnished to a premises during construction of improvements when no water meter had previously been installed. The Building Department charges a flat fee based on the tap size for an allotted number of gallons. Any water used over the allotment is billed out by Utility Billing, but any water under the allotment is not included in the consumption records from Utility Billing. The total 2018 construction water under the allotment threshold equated to 530,815 gallons.

3. Billed Unmetered Consumption 0.028 MG



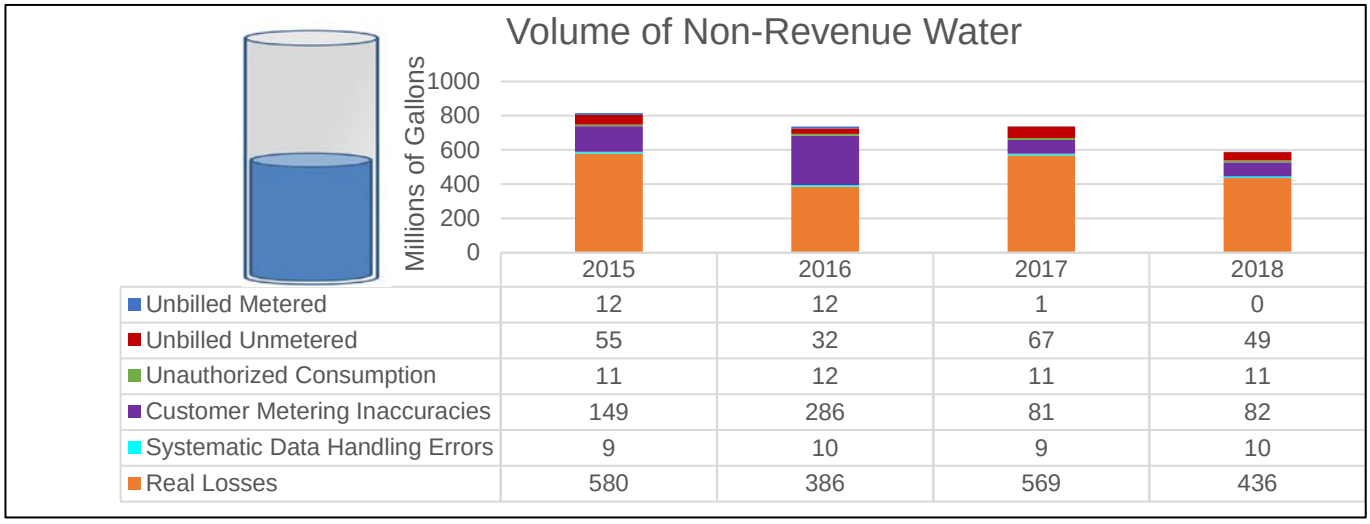
Consumption that generates revenue, the volume of which is determined by estimation or is not known.

The only usage that falls in this category for 2018 are four Public Works Department vehicles with unmetered water tanks. This water usage is estimated based on the volume of tank capacity per vehicle and load counts. LWP bills Public Works quarterly based on the estimated water usage. Since 2015, we have seen a large reduction due to having two fewer vehicles with unmetered water usage.

Non-Revenue Water 588.215 MG

Water that fails to generate revenue for the water supplier for any reason. It is comprised of the following: 1) Unbilled Authorized Consumption (unbilled metered and unmetered), 2) Apparent Losses (unauthorized consumption, customer metering inaccuracies, and systematic data handling errors), and 3) Real Losses (leaks and overflows)

The following chart splits out non-revenue water volume by category:



	2015	2016	2017	2018
Unbilled Metered	12	12	1	0
Unbilled Unmetered	55	32	67	49
Unauthorized Consumption	11	12	11	11
Customer Metering Inaccuracies	149	286	81	82
Systematic Data Handling Errors	9	10	9	10
Real Losses	580	386	569	436

Customer Retail Unit Cost $7.40 per 1,000 Gallons

The weighted average charge customers pay for water, applied to Apparent Losses.

Apparent Losses (unauthorized consumption, customer metering inaccuracies, and systematic data handling errors) are valued at Customer Retail Cost which is the sum of the weighted average volumetric revenues per $1,000 gallons for water of $3.05 and wastewater of $4.35 calculated as follows based on 2018 bill data:

Water Customer Class	2018 Water Volume Charge Revenue	2018 Thousands of Gallons	2018 Volume Charge per 1,000 Gallons	2018 No. of Customer Bills	Weighted % of Total Bills	Weighted Portion of Retail Unit Cost
Residential Inside Single Family	$6,061,775	2,013,879	$3.01	274,426	85.63%	$2.58
Residential Inside Multi Family	$1,137,180	412,022	$2.76	16,070	5.01%	$0.14
Residential Outside Single Family	$325,661	72,049	$4.52	10,341	3.23%	$0.15
Residential Outside Multi Family	$201,683	48,716	$4.14	531	0.17%	$0.01
Irrigation Inside	$1,819,670	506,872	$3.59	3,737	1.17%	$0.04
Irrigation Outside	$21,844	4,053	$5.39	60	0.02%	$0.00
Commercial Inside	$1,783,062	619,119	$2.88	13,542	4.23%	$0.12
Commercial Outside	$234,467	54,275	$4.32	1,092	0.34%	$0.01
Wholesale	$83,002	72,176	$1.15	34	0.01%	$0.00
City	$149,106	78,066	$1.91	628	0.20%	$0.00
Note: Excludes hydrants and ranch water revenue, which are not based on customer counts				**320,461**	**100%**	**Water Retail Unit Cost**
Value of Water Revenue lost per 1,000 gallons that reached the customer, but were not billed. (Apparent Loss portion of the Water Audit)						**$3.05**

Wastewater Customer Class	2018 Wastewater Volume Charge Revenue	2018 Thousands of Gallons	2018 Volume Charge per 1,000 Gallons	2018 No. of Customer Bills	Weighted % of Total Bills	Weighted Portion of Retail Unit Cost
Residential Inside Single Family	4,004,986	944,572	$4.24	273,195	67.67%	$2.87
Residential Inside Multi Family	1,233,047	282,162	$4.37	104,791	25.96%	$1.13
Residential Outside Single Family	$90,602	14,246	$6.36	4,008	0.99%	$0.06
Residential Outside Multi Family	$224,190	34,175	$6.56	7,548	1.87%	$0.12
Commercial Inside	1,928,149	434,268	$4.44	13,099	3.24%	$0.14
Commercial Outside	$97,263	14,604	$6.66	545	0.13%	$0.01
City Government		21,055	$3.49	536	0.13%	$0.00
Note: Excludes flat rate & high strength surcharges				**403,722**	**100%**	**Wastewater Retail Unit Cost**
Value of Wastewater Revenue lost per 1,000 gallons that reached the customer, but were not billed. (Apparent Loss portion of the Water Audit - Includes only the volume charges not the base charges)						**$4.35**

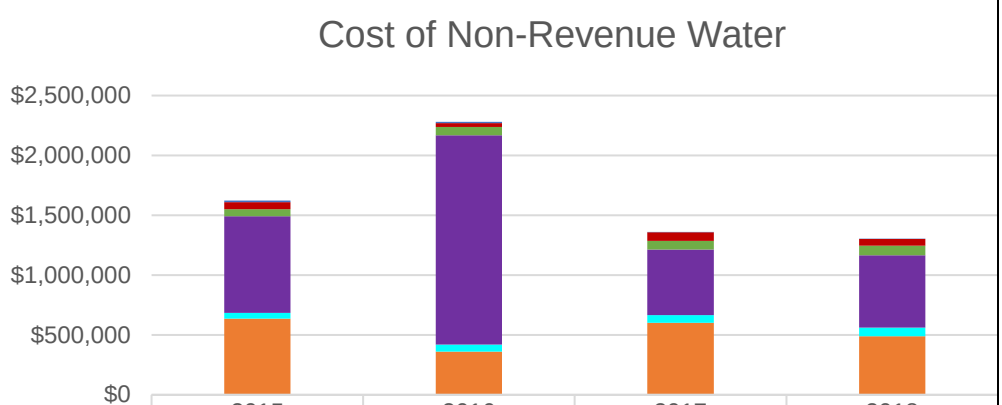
Variable Production Cost $1,211.23 per MG

Cost to treat and deliver the next unit of water to the system, applied to Real Losses.

Real Losses are valued at the Variable Production Costs, which are calculated as follows:

$1,748,365	2018 Source of Supply Costs
$3,254,697	2018 Treatment Costs
$5,039,062	**Total**
4,494 MG	÷ by 2018 System Input Volume (Corrected for known errors)
$1,121	= Variable Production Costs per MG

The chart below shows the cost of Non-Revenue Water during the audit year using the Customer Retail Unit Cost applied to Apparent Losses and the Variable Production Cost applied to Real Losses.



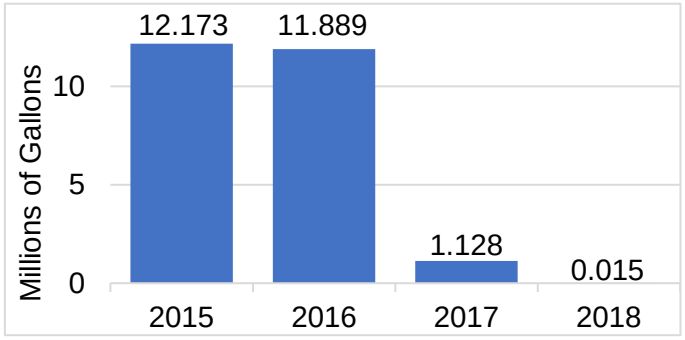
	2015	2016	2017	2018
Unbilled Metered *	$13,356	$11,132	$1,195	$17
Unbilled Unmetered *	$60,075	$29,740	$71,451	$55,492
Unauthorized Consumption **	$59,245	$70,488	$74,522	$81,992
Customer Metering Inaccuracies **	$806,128	$1,747,322	$547,769	$604,521
Systematic Data Handling Errors **	$48,203.10	$59,238	$62,040	$71,107
Real Losses *	$636,695	$361,759	$602,734	$489,221

* Valued at **Variable Production Cost** = variable cost to treat and deliver the next unit of water

** Valued at **Customer Retail Unit Cost** = charge the customer pays for the utility service (includes both water and wastewater revenue lost)

NON-REVENUE WATER CATEGORIES

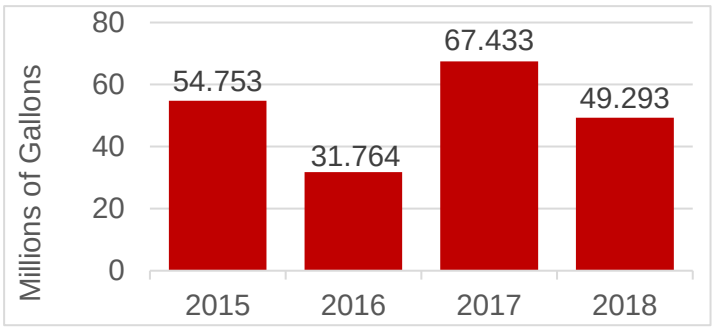
1. Unbilled Metered Consumption 0.015 MG



Consumption that does not generate revenue, the volume of which is determined by a water meter.

We previously had over 12 MG in this category, but have seen a dramatic decrease by charging the wastewater utility for all water used at the WWTP, the Stormwater Utility for irrigation water used at their facilities and an HOA for the irrigation water at a neighborhood lift station. The only amount remaining in this category for 2018 was for authorized events. Any event in which water is not billed, requires the prior approval of the Director of Water and Power. We track the usage for these instances through hydrant meters. For 2018, this included water for the Corn Roast Festival and the Loveland Loves BBQ event.

2. Unbilled Unmetered Consumption 49.492 MG



Consumption that does not generate revenue, the volume of which is determined by estimation or is not known.

When economically feasible, we are working to get this water usage metered and billed. When that is not economically feasible, we are working to ensure the water is not used wastefully, and to estimate and track the water usage. Below outlines what falls into this category and the progress made in tracking and billing this usage.

- ***Maintenance of Water Distribution System*** ***Estimated 29.561 MG***

In 2018, 60% of unbilled unmetered consumption was used for on-going maintenance of the water distribution system and is broken out as follows:

2018 Estimated Gallons	Water Distribution System Maintenance Activity
17,998,861	Fire hydrant flushing
6,400,000	Transmission Line Flushing
5,162,400	Water Storage Tank Cleaning & Draining

- ***Disinfection & Construction Projects*** ***Estimated 15.300 MG***
  In 2018, 31% of the unbilled unmetered consumption was to disinfect water pipes and for non-emergency de-watering of lines. Both of these primarily occur during construction projects and for new developments. Project Managers submit a log annually that auto-calculates the water used based on various input values as part of the audit.

- ***Sanitary Sewer Jetting*** ***Estimated 3.000 MG***
  In 2018, 6% of the unbilled unmetered consumption was used for sanitary sewer jetting. Because this maintenance task is used to maintain the wastewater collection system and not for the water distribution system, this water usage should be charged to the wastewater utility. We have budgeted for the wastewater utility to reimburse the water utility for this usage through quarterly fund transfers starting in 2019.

- ***Unmetered Utility Facilities*** ***Estimated 0.267 MG***
  In 2019, we reviewed all of our pump stations, lift stations and tanks looking for unmetered water access and usage. We found two locations that irrigate the landscaping with unmetered water usage at the 29th Street Pump Station and at the Namaqua Hills Tank. We have plans to install a meter this year at the 29th Street Pump Station and in 2020 at the Namaqua Hills Tank in conjunction with other work that require excavation of the grounds. Several of the pump stations and lift stations have internal hose bibs used to occasionally wash down the floor or equipment. These are used so infrequently that we do not plan on installing meters at these locations. We estimated this water usage based on the areas irrigated times 3 acre feet of water per acre, which is the standard amount of water required to irrigated typical Kentucky bluegrass during a growing season.

- ***Fire Training Grounds*** ***Estimated 0.105 MG***
  There are nine unmetered fire hydrants used for fire training purposes at the Loveland Fire Training Grounds. The Fire Authority maintains a log of water usage when they hook up to the on-site hydrants for fire training exercises and submits this log annually as part of the audit. However, they do not track the usage when other parties use these meters for fire training exercises.

- ***Off-Site Fire Training*** ***Estimated 0.062 MG***
  The Fire Authority performs off-site fire training in which they hook up to fire hydrants throughout the City. The Fire Authority maintains a log of which water district's fire hydrants they hook up to and estimates the water used during these off-site training exercises and submits this log annually as part of the audit.

- ***Fire Fighting*** ***Estimated 0.674 MG***
  The Fire Authority tracks and logs the water used for each fire incident and submits this log annually as part of the audit.

- ***Fire Hydrant Flow Tests*** ***Estimated 0.119 MG***
  Fire hydrant flow tests are conducted to determine water availability in planning for firefighting activities, fire sprinkler systems or domestic water demand. Near the end of

2017, we began using a form that includes enough information to calculate the estimated water use during such tests. No charge was assessed during 2018 for these test. Beginning in 2019, we began charging a flat fee for each fire hydrant flow test and on the next audit this water use will be moved to the billed unmetered water category.

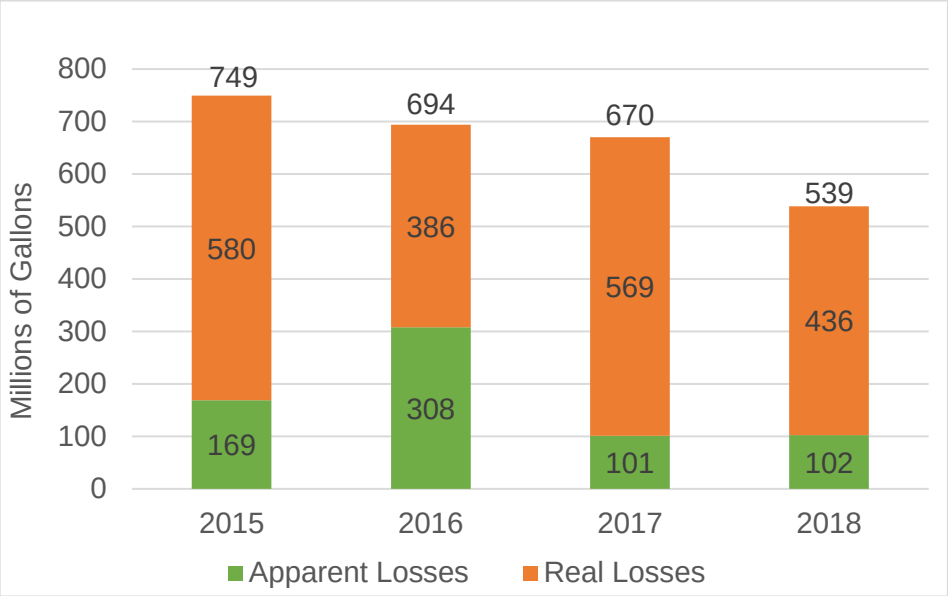
- ***New Fire Sprinkler Systems*** ***Estimated 0.140 MG***

The majority of the water used for fire sprinkler systems is during the initial installation with minimal amounts required during annual inspections. We estimate water usage for new systems based on building type and square footage for all newly permitted buildings requiring a fire sprinkler system.

- ***Fire Pumps*** ***Estimated 0.263 MG***

Fire pumps are needed when the water system cannot provide sufficient pressure to meet the hydraulic design requirements of the fire sprinkler system such as for tall buildings, systems with relatively high terminal pressure at the fire sprinklers in order to provide a large volume of water, such as in storage warehouses or when the water supply is provided from a ground level water storage tank. Fire pumps are certified annually and each test generally uses several thousand gallons of water. The Fire Authority provided us with a list of all the fire pumps in Loveland and their flow ratings, which we used to estimate the water used during annual fire pump tests.

3. Water Losses — Estimated 538.708 MG

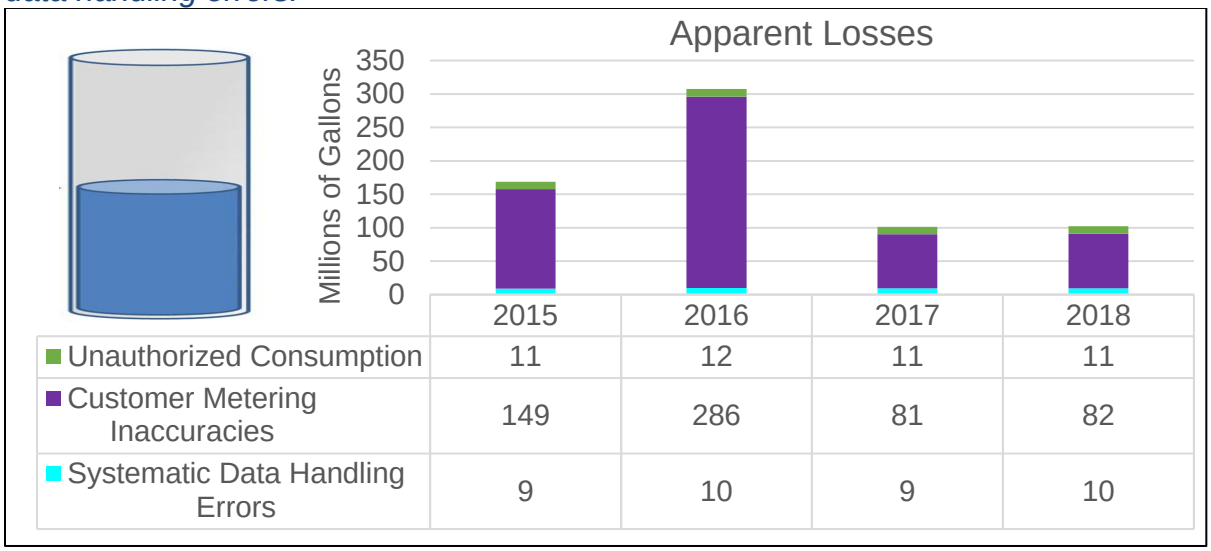


Water losses consists of Apparent Losses (paper losses) and Real Losses (leakage and overflows).

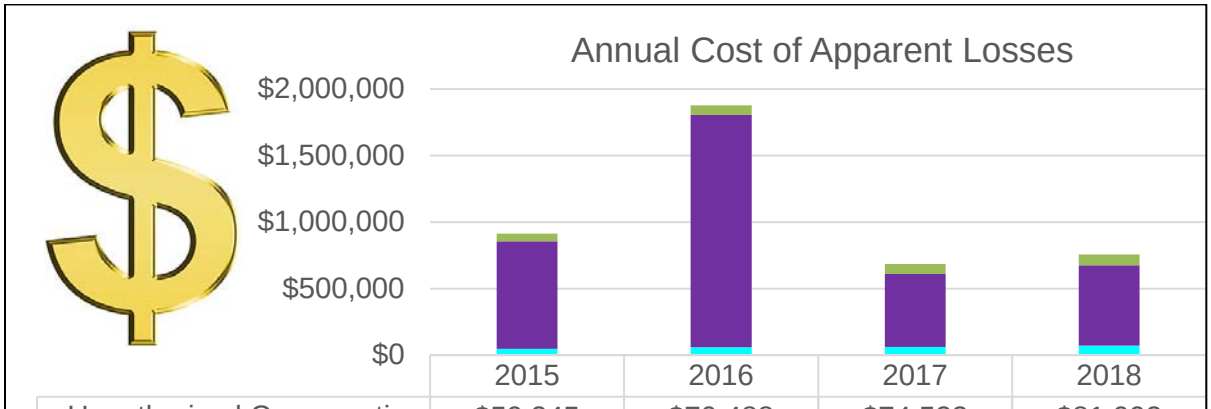
We first determine the volume of Apparent Losses and then determined the Real Losses by the amount remaining.

3A. Apparent Losses — Estimated 266.849 MG

These losses are the nonphysical losses that occur when water is successfully delivered to the customer but is not measured or recorded accurately. These losses include unauthorized consumption, metering inaccuracies and systematic data handling errors.



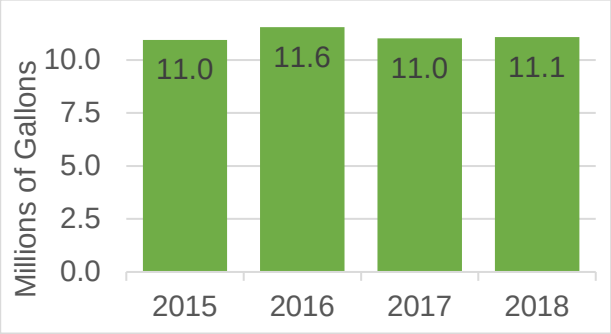
	2015	2016	2017	2018
Unauthorized Consumption	11	12	11	11
Customer Metering Inaccuracies	149	286	81	82
Systematic Data Handling Errors	9	10	9	10



	2015	2016	2017	2018
Unauthorized Consumption	$59,245	$70,488	$74,522	$81,992
Customer Metering Inaccuracies	$806,128	$1,747,322	$547,769	$604,521
Systematic Data Handling Errors	$48,203.10	$59,238	$62,040	$71,107

Apparent losses are valued at the full rate the utility would have received had they been billed (Customer Retail Cost). Because apparent losses are valued at the customer retail cost, controlling apparent losses can offer substantial revenue recovery opportunities.

1. Unauthorized Consumption — Estimated 11.080 MG

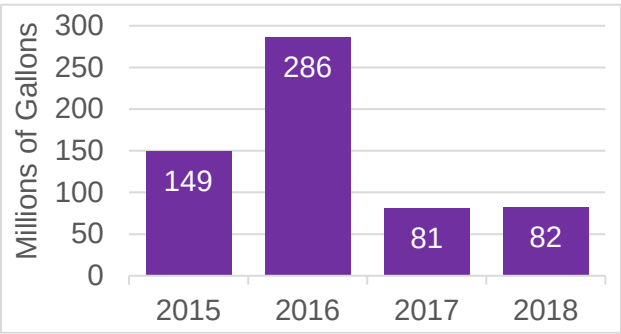


Consumption not explicitly or implicitly authorized by the utility, commonly known as water theft.

These include water from illegal connections, open bypasses, buried or otherwise obscured meters, misuse of fire hydrants and fire-fighting systems, vandalized or bypassed consumption meters, tampering with meter reading equipment, etc.

Due to the difficulty in tracking down and calculating this type of loss, we used the AWWA default estimate of 0.25% times the water supplied volume. This percentage has been found to be representative of the average loss from unauthorized consumption.

2. Customer Meter Inaccuracies — Estimated 81.692 MG



Sources of error on the customer meter readings such as under-registration, over-registration and data gaps caused by outages of the meter instrumentation.

Water meters act as the cash registers for water utilities and it is important that they accurately record water usage, particularly for customers with high water use, so that the utility is adequately compensated for the water that customers use and so that each customer pays their fair share of the cost of the utility.

Inaccuracies of Prior Estimates: In 2015, we averaged all meter test results regardless of make and model for each size meter. In 2016, we refined our estimates by applying the meter test results to the consumption by meter make, model and size. The water loss was likely inflated both of these years because the only small meters tested were those already flagged for problems, which would lower test results and would not be a good representation of the average small meter in the field. We now pull samples of small meters to be tested annually and use these sample meter test results applied to the water consumption that goes through similar meters in make, model and size.

Below outlines LWP water metering testing procedures:

- **Small Meters:** Beginning in 2017, a sampling of the ¾" and 1" meters are tested annually as well as when they are flagged for problems.
- **Medium Meters:** 1.5" and 2" meters are tested every 5 years except at locations where not feasible due to access, area disturbance or other issues.
- **Large Meters:** 3", 4" and 6" meters are tested annually except in locations where not feasible due to access, area disturbance or other issues.

While compiling the 2018 water loss audit, we discovered that 70 large and 216 medium sized meters were past due for testing due to an error in how IT pulled a query from our antiquated DOS based customer information system. After discovering this error, LWP staff made a thorough review of the meter test reports and installation dates on each 1.5" to 6" sized meter with registered consumption in 2018. Water Metering will focus on testing the past due meters with the highest consumption first and then to catch up with the other past due meter tests over the next few years except in locations with feasibility issues. The implementation of the new Customer Information System, set to be deployed in 2020, should help to eliminate this type of query error from occurring in the future.

If available, the 5-year average of the meter test results was applied to 1" to 6" size meters for each make and model. For the ¾", 5/8", and 1" meters, the average meter test results of the sample of meters tested that were not flagged due to problems was applied. When no meters were tested within the past 5-years of the specific make and model, then the weighted average of all meters of that size was applied.

The following table summarizes the 2018 water consumption and meter test results by meter size, make and model and the estimated volume and financial impact of water metering inaccuracies during the audit year.

2018 Summary of Water Consumption by Location & Meter Type					Water Meter Test Results for Meter Makes & Models with 2018 Consumption						MG Under Registered	Value of Under Registered Gallons at Retail Unit Cost per 1,000 gallons
Total Meters		**Total Gallons Consumed**									**81.692**	
27,368			**3,908,369,043**	**100.0%**	**2014-2018 Meter Test Results (5-yr average)***						**Gall Under Registered** (Consumption x Overall Avg %)	**$7.40**
Qty	**Meter Make**	**Size (inches)**	**Consumption (Gallons)**	**% of Total Consumption**	**Make: Model**	**Qty Tested**	**Avg Low**	**Avg Medium**	**Avg High**	**Overall Avg %**	**81,692,115**	**$604,521.65**
1	ABB	0.75	102,430	0.00%	ABB: BLANK	1	83.0%	99.3%	99.5%	93.92%	6,228	$46.09
3	ITRON	0.75	461,348	0.01%	*Use Weighted Average*					98.06%	8,928	$66.07
4,632	I-PERL	0.75	413,367,697	10.85%	Sensus: I-Perl	47	98.55%	98.50%	98.70%	98.58%	5,868,795	$43,429.08
3	NEPTUNE	0.75	128,530	0.00%	Neptune: BLANK	2	99.0%	100.0%	96.1%	98.35%	2,127	$15.74
2,492	ROCKWELL	0.75	220,891,517	5.80%	Rockwell: BLANK	10	92.6%	98.5%	98.8%	96.49%	7,753,292	$57,374.36
12,810	SENSUS	0.75	1,121,297,971	29.42%	Sensus: BLANK	17	96.80%	99.73%	99.70%	98.73%	14,280,059	$105,672.44
159	SENSUS SR	0.75	21,875,977	0.57%	Sensus: SR	4	91.5%	99.4%	99.9%	96.77%	707,141	$5,232.84
5,651	SENSUS SR2	0.75	534,203,775	14.02%	Sensus: SR-II	16	93.5%	99.0%	99.6%	97.38%	13,996,139	$103,571.43
25,752		**0.75**	**2,312,329,245**	**61.27%**		**97**			**Weighted Avg for 3/4"**	**98.06%**		
*Note: We began random sampling of 3/4" meters (not flagged due to errors) in 2017. As available, we will combine previous years test results until we can get a 5 year average. For this report, only 2017 -2018 meter test results were applied.												
547	I-PERL	1.00	201,174,872	5.28%	Sensus: I-Perl	10	98.7%	98.9%	98.6%	98.73%	2,558,944	$18,936
3	SENSUS	1.00	233,703	0.01%	Sensus: SR	2	99.0%	100.0%	99.6%	99.52%	1,133	$8
233	SENSUS SR2	1.00	103,281,720	2.71%	Sensus: SR-II	5	100.6%	100.7%	100.0%	100.44%	(450,308)	$(3,332)
783		**1.00**	**304,690,295**	**7.99%**		**17**			**Weighted Avg for 1"**	**99.32%**		
*Note: We began random sampling of 1" meters (not flagged due to errors) in 2018. As available we will combine previous years test results until we can get a 5 year average. For this report, only 2018 meter test results were applied.												

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4	NEPTUNE	1.50	8,231,694	0.22%	Neptune: BLANK	1	99.2%	100.4%	99.9%	99.80%	16,463	$122
42	OMNI COMPOUND	1.50	23,974,774	0.63%	Sensus: Omni C2	1	100.9%	100.6%	101.4%	100.98%	(234,953)	$(1,739)
18	OMNI TURBO	1.50	39,192,159	1.03%	Sensus: Omni T2	3	100.3%	100.5%	100.7%	100.65%	(254,749)	$(1,885)
1	ROCKWELL	1.50	151,483	0.00%	Rockwell: BLANK	1	87.0%	98.0%	96.0%	93.70%	9,543	$71
308	SENSUS SR	1.50	221,260,281	5.81%	Sensus: SR	294	94.7%	97.4%	97.5%	96.92%	6,806,513	$50,368
5	SENSUS SR2	1.50	4,006,015	0.11%	Sensus: SR-II	12	99.3%	99.8%	99.7%	99.57%	17,259	$128
34	SENSUS TURBO	1.50	86,777,340	2.28%	Sensus: TURBO	32	86.9%	93.1%	98.3%	92.82%	6,234,410	$46,135
412		**1.50**	**383,593,746**	**10.06%**		**344**		**Weighted Avg for 1.5"**		**96.68%**		
10	NEPTUNE	2.00	10,207,090	0.27%	Neptune: BLANK	2	77.3%	95.7%	99.9%	90.9%	928,845	$6,873
1	NEPTUNE E-CODER COMPOUND	2.00	239,249	0.01%	Neptune: Compound	1	95.1%	97.6%	99.9%	97.5%	5,886	$44
1	NEPTUNE T10	2.00	3,428,924	0.09%	Neptune: T-10	9	98.0%	102.7%	100.1%	100.3%	(9,652)	$(71)
1	NEPTUNE TURBO	2.00	912,615	0.02%	Neptune: Turbo	8	97.3%	101.1%	99.9%	99.4%	5,210	$39
93	OMNI COMPOUND	2.00	97,365,621	2.55%	Omni: Compound	3	101.3%	101.0%	100.3%	100.9%	(836,263)	$(6,188)
10	OMNI TURBO	2.00	61,444,744	1.61%	*Use weighted average*						1,635,724	$12,104
76	SENSUS COMPOUND	2.00	72,282,353	1.90%	Sensus: Compound	82	92.3%	97.3%	98.8%	96.4%	2,618,649	$19,378
116	SENSUS SR	2.00	160,651,253	4.22%	Sensus: SR	115	94.5%	98.3%	100.0%	97.9%	3,415,958	$25,278
2	SENSUS SR2	2.00	612,771	0.02%	Sensus: SR-II	3	98.5%	99.8%	100.5%	99.6%	2,499	$18
22	SENSUS TURBO	2.00	45,694,849	1.20%	Sensus: Turbo	35	89.5%	97.3%	99.7%	96.5%	1,617,424	$11,969
332		**2.00**	**452,839,469**	**11.88%**		**258**		**Weighted Avg for 2"**		**97.34%**		
16	OMNI COMPOUND	3.00	33,531,479	0.86%	Omni: Compound	5	91.4%	101.7%	102.8%	98.9%	362,140	$2,680
3	OMNI TURBO	3.00	8,834,113	0.23%	Omni: Turbo	1	100.1%	100.1%	100.9%	100.4%	(32,392)	$ (240)
34	SENSUS COMPOUND	3.00	97,635,129	2.56%	Sensus: Compound	49	90.0%	94.5%	99.9%	94.5%	5,321,646	$39,380
10	SENSUS TURBO	3.00	78,339,271	2.06%	Sensus: Turbo	23	96.2%	100.5%	95.5%	97.4%	2,013,433	$14,899
63		**3.00**	**218,339,992**	**5.73%**		**78**		**Weighted Avg for 3"**		**95.8%**		

1	BADGER	4.00	3,621,858	0.10%	Badger: Compound	2	101.0%	103.4%	101.0%	101.8%	(65,193)	$ (482)
1	NEPTUNE	4.00	7,013,000	0.18%	Neptune: BLANK	2	101.3%	82.7%	103.5%	95.9%	291,040	$2,154
3	OMNI COMPOUND	4.00	12,778,342	0.34%	Omni: Compound	2	96.0%	101.4%	102.6%	100.0%	2,130	$16
1	OMNI TURBO	4.00	13,000	0.00%	*Use weighted average*					70.1%	236	$2
12	SENSUS COMPOUND	4.00	40,006,766	1.05%	Sensus: Compound	12	98.3%	97.7%	91.8%	95.9%	1,631,609	$12,074
4	SENSUS TURBO	4.00	29,009,204	0.76%	Sensus: Turbo	7	100.1%	102.3%	101.4%	101.2%	(346,729)	$(2,566)
22		**4.00**	**92,442,170**	**2.43%**		**25**			**Weighted Avg for 4"**	**98.2%**		
4	SENSUS COMPOUND	6.00	47,135,883	1.24%	Sensus: Compound	18	71.3%	90.5%	101.6%	87.7%	5,802,951	$42,942
4		**6.00**	**47,135,883**	**1.24%**		**18**			**Weighted Avg for 6"**	**87.7%**		

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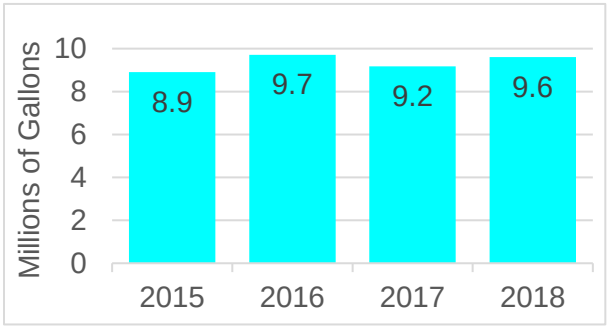
3. Systematic Data Handling Errors — Estimated 9.609 MG



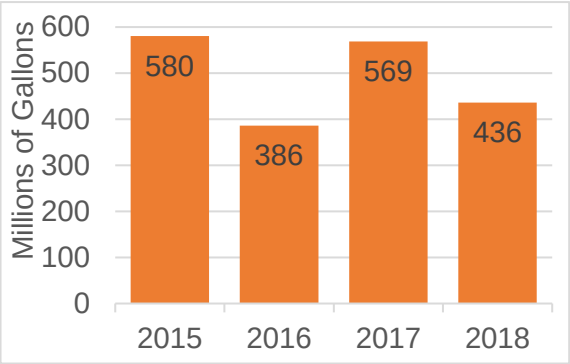
Errors in the processes that transmit, archive, and report customer consumption totals from the time when a meter is read to the time when that consumption is billed.

For the water audit, we used the AWWA default estimate of 0.25% billed metered authorized consumption.

The City contracted with Water Company of America to review unbilled or misbilled Water, Wastewater, Power, Stormwater and Solid Waste Utilities. The consultant combed through data and perform field work to find areas in which we could recapture revenue such as when a City rate structure was misapplied, finding billing system inaccuracies, detecting unknown connections, finding account coding errors, flagging chronic meter reading errors, etc. Although they did not find errors in calculating the amount of water consumed by customers, they did find the following errors, which equates to $1,601 more monthly revenue captured for the City of Loveland.

	Water		Sewer		Storm Drainage		Street Maintenance	
	No. of Accounts	Monthly Revenue Captured	No. of Accounts	Monthly Revenue Captured	No. of Accounts	Monthly Revenue Captured	No. of Accounts	Monthly Revenue Captured
Billing the incorrect number of units	2	$12.76	8	$60.15	9	$222.13	9	$74.97
Billing the wrong customer class	1	$6.39	2	$36.90				
Service not activated and billing			2	$27.57	2	$442.46	2	$409.76
Incorrect acreage					4	$184.40	3	$124.00
Totals	**3**	**$19.15**	**12**	**$124.62**	**15**	**$848.99**	**14**	**$608.73**

3B. Real Losses — Estimated 436.327 MG



Physical water losses of treated, energized water from the water distribution system from breaks, leaks and overflows.

Real losses are calculated as what remains after authorized consumption, and apparent loss volumes are deducted from the water supplied volume.

Please Note: The actual water loss in 2015 and 2016, most likely was understated from what is shows in this graph due to how the customer metering inaccuracy amounts were calculated in 2015 and 2016, which are part of the apparent loss volumes. Improved methods have since been employed. (For more information, see the Customer Metering Inaccuracies section above.)

The table below is the estimated gallons lost due to reported water leaks with the amounts based on various system attributes and the amount of time it takes to repair each leak.

Gallons Lost	Water Distribution System Maintenance Activity
32,999	Replace service
81,468	Repair service
8,000	Repair/replace valve
22,679,753	Repair main

Reported leakages are easy to see and account for about 23 MG of the total estimated real water loss from our system in 2018. The rest of the leakage is either hidden (i.e. leaking into a river, ditch, ground water, etc.) or goes unreported. The volume of real water loss is dependent on the number of leaks, the size of the leaks, the operating pressures of the system and the total time the leaks are permitted to run. Improvements in each of these areas can help reduce real losses. Keeping up with deteriorating waterlines requires time and money to address problems that we are aware of as well proactive measures to find and fix the hidden or unreported leaks.

- **Number of Leaks:** The following are two approaches to determine the approximate amount of reinvestment needed to keep up with Loveland's aging and deteriorating waterline infrastructure.
  - In 2018, we had 1 leak for every 42,236 feet of pipe (59 leaks total on 2,491,906 feet of pipe). To decrease the number of leaks that occur in a year, we would need to replace on average about 42,236 feet of pipe for each leak we want to prevent from occurring.

- Assuming a system design life of 100-years, 1% or 24,919 feet of waterlines should be replaced or rehabilitated per year. With a weighted average cost of $320 per foot (includes material costs + 15% for engineering and construction), we would need about $8.0 Million budgeted per year for waterline replacements.

- **Operating Pressures:** As a system's pressures increases, the amount of water that escapes from each leak increases as well. Lowering the operating pressures of a system will decrease the leakage from a system. Loveland's average operating pressure is at 65 psi, which falls within AWWA's recommended range of 60 to 80 psi for normal working pressures in water distribution systems.

- **Size of Leaks/Run Times:** The faster a utility is aware of a leak, the faster a utility can respond to fix the leak and thus reduce the run-time of the leaks and the amount of water lost per leak. In the past, LWP has employed some acoustic leak detection technologies; however, these efforts have not been consistent due to time and budgetary constraints. Our Water Operations crews have been occupied fixing reported leaks and maintaining the water distribution and wastewater collection systems. In 2018, LWP hired an additional Water Operations crew member, and LWP purchased new leak detection equipment. The leak detection equipment is deployed in several water valves within an area and can help to identify the approximate location of leaks while monitoring the acoustics on the water lines during low usage times at night.

PERFORMANCE INDICATORS

• QUALITY OF AUDIT PERFORMANCE INDICATORS •

1. **Water Audit Data Validity Score** **65 out of 100**

This is a composite weighted score that reflects the quality of the data entered into the audit, based on the volume amounts and validity scoring for the individual audit input fields.

Below outlines each of the fields with validity scores, followed by steps to improve or maintain these scores:

- **Volume from Own Sources** **5 out of 10**

  Meter accuracy testing and/or electronic calibration of related instrumentation is conducted annually.

  Master Meter & Supply Error Adjustment **3 out of 10**

  Hourly production meter data reviewed on at least a weekly basis. Data is adjusted to correct gross error when meter/instrumentation equipment malfunction is detected; and/or error is confirmed by meter accuracy testing. Tank/storage facility elevation changes are automatically used in calculating a balanced "Volume from own sources" component, and data gaps in the archived data are corrected on at least a weekly basis.

- **Water Imported** **5 out of 10**

  Meter accuracy testing and/or electronic calibration of related instrumentation is conducted annually for all meter installations. Less than 25% of tested meters are found outside of +/- 6% accuracy.

  Master Meter Supply Error Adjustment **1 out of 10**

  Receive automatic datalogging of imported supply volumes; Have written agreement that requires meter accuracy testing and includes details of how and who conducts the testing.

- **Water Exported** **5 out of 10**

  Meter accuracy testing and/or electronic calibration of related instrumentation is conducted annually for all meter installations. Less than 25% of tested meters are found outside of +/- 6% accuracy.

  Meter Supply Error Adjustment **3 out of 10**

  Hourly Imported supply metered data is logged automatically & reviewed on at least a weekly basis by the Exporter. Data is adjusted to correct gross error when meter/instrumentation equipment malfunction is detected; and to correct for error confirmed by meter accuracy testing. Any data gaps in the archived data are detected and corrected during the weekly review. A coherent data trail exists for this process to protect both the selling and the purchasing Utility.

- **Billed Metered** **7 out of 10**

  Regular meter accuracy testing guides replacement of statistically significant number of meters each year. Routine auditing of computerized billing records for global and detailed statistics occurs annually by utility personnel, and is verified by third party at least once every five years.

- **Billed Unmetered** **8 out 10**

  Clearly written policy identifies the types of accounts given a billing exemption, with emphasis on keeping such accounts to a minimum. Customer meter management and meter reading for these accounts is given proper priority and is reliably conducted. Regular auditing confirms this. Total water consumption for these accounts is taken from reliable readings from accurate meters.

- **Unbilled Metered** **8 out 10**

  Have dated written policies regarding billing exemptions.

- **Unbilled Unmetered** **8 out 10**

  Clear policies exist to identify permitted use of water in unbilled, unmetered fashion, with the intention of minimizing this type of consumption.

- **Unauthorized Consumption** **5 out of 10**

  Finalize policy updates to clearly identify the types of water consumption that are authorized from those usages that fall outside of this policy and are, therefore, unauthorized. Begin to conduct regular field checks.

- **Customer Metering Inaccuracies** **6 out 10**
  Ongoing meter replacement and accuracy testing result in highly accurate customer meter population. Testing is conducted on samples of meters of varying age and accumulated volume of throughput to determine optimum replacement time for various types of meters.

- **Systematic Handling Errors** **8 out of 10**
  New account activation and billing operations policy and procedures are reviewed at least biannually. Computerized billing system includes an array of reports to confirm billing data and system functionality. Checks are conducted routinely to flag and explain zero consumption accounts. Annual internal checks conducted with third party audit conducted at least once every five years. Accountability checks flag billing lapses. Consumption lost to billing lapses is well quantified and reducing year-by-year.

- **Length of Mains** **9 out of 10**
  Sound written policy exists for managing water mains extensions and replacements. Geographic Information System (GIS) data and asset management database agree and random field validation proves truth of databases. Records of annual field validation should be available for review.

- **Number of Active and Inactive Service Connections** **6 out of 10**
  Formalize regular review of new account activation and overall billing operations policies and procedures. Launch random field checks of limited number of locations. Develop reports and auditing mechanisms for computerized information management system.

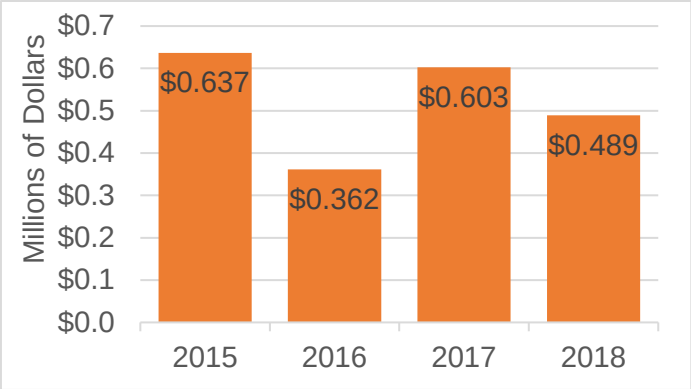
- **Average Operating Pressures** **9 out of 10**
  Annually, obtain a system-wide average pressure value from the hydraulic model of the distribution system that has been calibrated via field measurements in the water distribution system and confirmed in comparisons with SCADA System data.

- **Total Annual Cost of Operating Water System** **10 out of 10**
  Maintain reliable electronic, industry-standard cost accounting system in place, with all pertinent water system operating costs tracked. Data audited annually by utility personnel and annually also by third-party CPA.

- **Customer Retail Unit Cost Current** **8 out of 10**
  The rate structure and calculations of composite rate - which includes residential, commercial, industrial, institutional (CII), and other distinct customer classes - are reviewed by a third party knowledgeable in the M36 methodology at least once every five years.

- **Variable Production Cost** **10 out of 10**
  Continue to have a third party CPA audit all pertinent primary and secondary variable production and water imported purchase (if applicable) costs on an annual basis.

2. Priority Areas for Attention



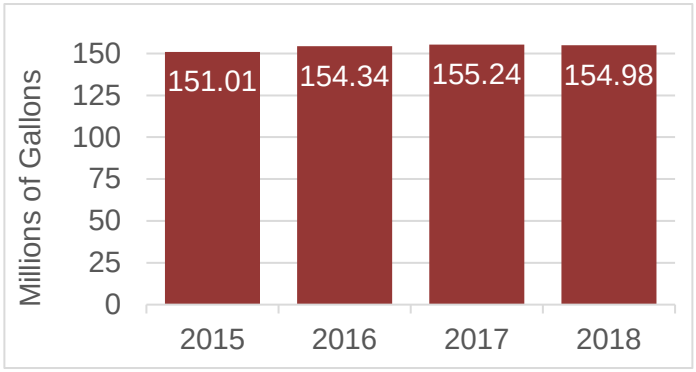
Top three areas where improvement would make the most impact to increase the overall data validity score of the audit.

1. Volume from own sources
2. Unbilled metered
3. Billed metered

Note: Improvement in these priority areas will result in higher data validity, but not necessarily improved system performance in managing water losses.

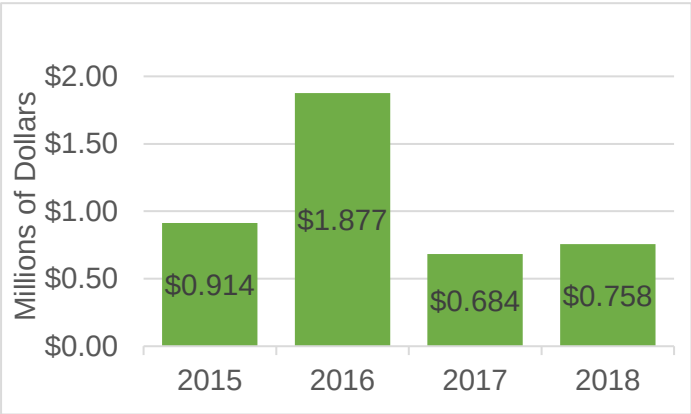
• System Attributes Performance Indicators •

1. Unavoidable Annual Real Losses (UARL) 154.98 MG



Theoretical reference value representing the technical low limit of leakage that could be achieved if all of today's best technology could be successfully applied, given the pipeline mileage, service connection density, and average operating pressure of the system.

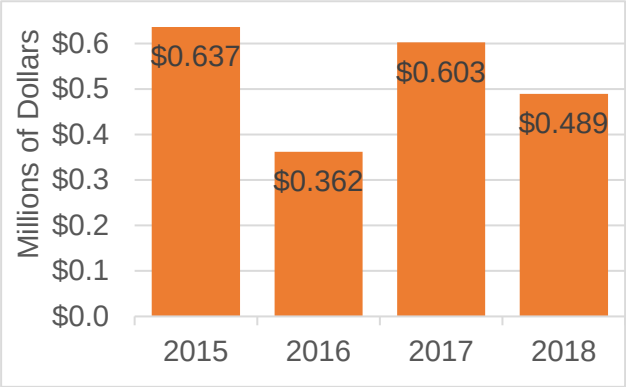
2. Annual Cost of Apparent Losses $757,618



Annual cost of nonphysical losses that occur when water is successfully delivered to the customer but is not measured or recorded accurately.

It includes metering inaccuracies, unauthorized consumption and data handling errors. It is valued at the customer retail cost, which includes the revenue lost based on volume charges for both the water and wastewater utilities.

3. Annual Cost of Real Losses $489,222

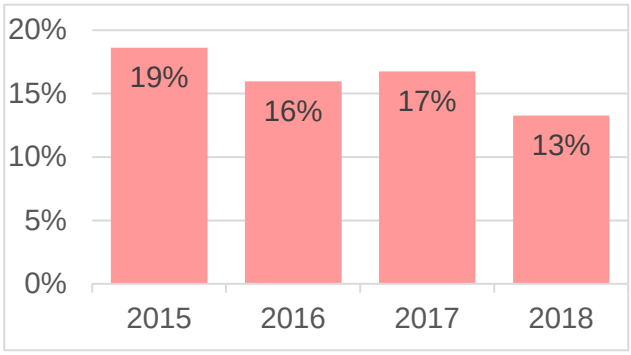


Annual cost of physical losses that occur when water leaks out of the system on water mains, service lines or when water tanks overflow.

It is valued at the variable production cost, which includes the cost to produce the next unit of treated water.

• Financial Performance Indicators •

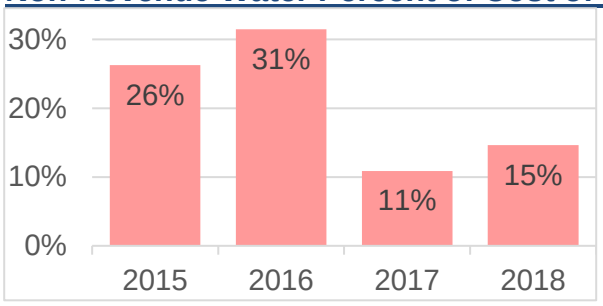
1. Non-Revenue Water Percent of Water Supplied Volume 13.3%



Financial performance indicator of the value of Non-Revenue Water as a percentage of the water supplied into the water distribution system.

This performance indicator provides a high-level financial basis to assess overall water supply management, but does not provide enough detail to be used as an operational performance measure.

2. Non-Revenue Water Percent of Cost of Operating System 14.7%



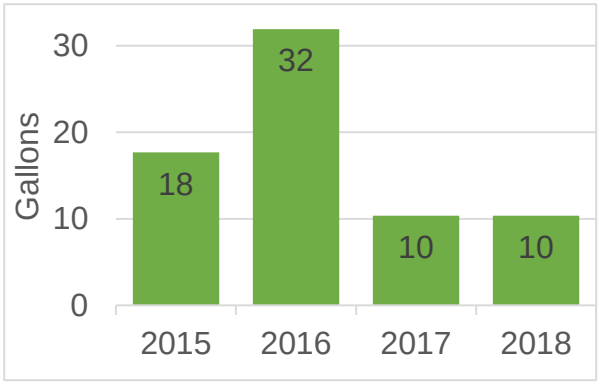
Financial performance indicator of the value of Non-Revenue Water as a percentage of the total costs to run the water system.

It provides the overall financial impact of non-revenue water on the water utility. This indicator is expressed as the cost of non-revenue water over the total annual cost of running the water supply system including operations, maintenance and any annually incurred costs for long-term upkeep of the water system. The following costs are included from the December Water Financial Statement: Distribution Operation & Maintenance, Administration, Customer Relations, PILT, Services Rendered-Other Departments, Internal Loan Debt Expense, and External Loan Debt Expense.

Please note, this percentage is not an operational indicator because it does not specifically speak to the level of Real Losses or Apparent Losses. Non-Revenue Water includes Unbilled Authorized Consumption, Real Losses (leakage), and Apparent Losses (paper losses).

• OPERATIONAL EFFICIENCY PERFORMANCE INDICATORS •

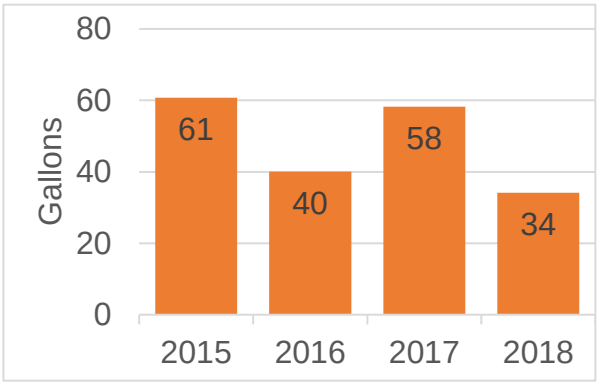
1. Apparent Loss Gallons per Service Connection per Day — 10.37 Gallons



This performance indicator normalizes Apparent Losses to evaluate performance over time even as the number of service connections changes.

In 2018, we estimate that on average each LWP service connection had 10 gallons of apparent water loss per day.

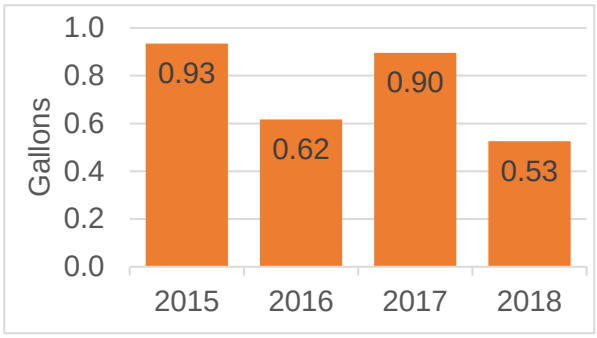
2. Real Loss Gallons per Service Connection per Pay — 44.20 Gallons



This performance indicator normalizes Real Losses to evaluate performance over time as the number of service connections changes.

In 2018, we estimate that if we averaged the real losses out over all the service connections that on average each LWP service connection had 34 gallons of real water loss per day.

3. Real Loss Gallons per Service Connection per Day per PSI — 0.68 Gallons

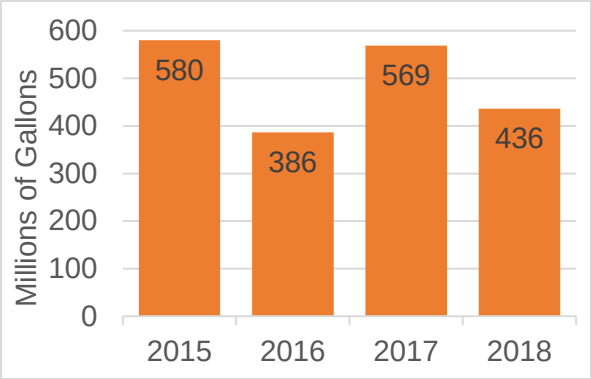


This performance indicator normalizes Real Losses to evaluate performance over time as the number of service connections changes and as pressures change.

A higher pressure system can be expected to leak more, and low pressure systems to leak less, due to the direct relationship between pressure and leakage.

• OTHER PERFORMANCE INDICATORS •

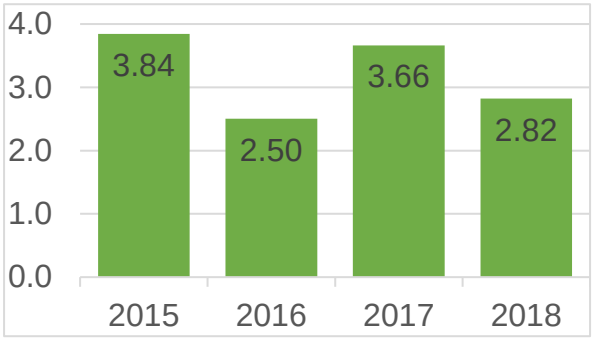
1. Current Annual Real Losses (CARL) 436.33 MG/Year



The volume of water lost to all forms of leakage or spillage.

Real losses are calculated as what remains after authorized consumption, and apparent loss volumes are deducted from the water supplied volume.

2. Infrastructure Leakage Index (ILI) [CARL/UARL] 2.82



The ILI indicates how well a distribution system controls Real Losses (leakage), taking into account its key characteristics, namely the length of water mains, number of service connections, and average system operating pressure.

The ILI is a leading benchmark standard for evaluating system performance over time and in comparison to other utilities. Mathematically, it is the ratio of the actual annual volume of Real Losses to the lowest possible volume of Real Losses that can be technically achieved for that water system given current operating conditions (Current Annual Real Losses divided by Unavoidable Annual Real Losses).

The 2018 ILI of 2.82 indicates that the volume of Real Losses within the LWP distribution system is 2.82 times the technical minimum for our system.

KEY POINTS FROM 2018 WATER LOSS AUDIT

1. **Volume from Own Sources:**
   In 2018, we performed a draw down test of the Chasteen's Tank located just prior to the water produced at the Water Treatment Plant entering the water distribution system. From this draw down test, we estimate this master meter over-registers the actual water entering the distribution system by about 3.85%. Staff plans to continue to perform draw down tests at least on a yearly basis.

   In March of 2018, we discovered that water had been cycling back to the head of the plant from the decant ponds for several years causing some double counting of water and creating a greater discrepancy between the water we showed entering the plant and exiting the plant. This valve is now closed and should help tighten the tracking of the water entering and exiting the plant.

2. **Revenue Water**
   a. **Construction Water** is now included in the metered billed water section, which added about a half million gallons to the metered billed water consumption.
   b. **Sanitary Sewer Jetting** Starting in 2019, the wastewater utility will reimburse the water utility for the estimated water used for sanitary sewer jetting at the inside commercial water use rate. This has ranged from 3 MG to 12 MG per year from 2015 through 2018.
   c. **Fire Hydrant Flow Tests:** Beginning in 2019, a flat fee is charged for each fire hydrant flow test fee, which will move this water from unmetered unbilled to unmetered billed consumption.
   d. **Correction of Water Consumption Report Errors:** Staff discovered and corrected some errors in the water consumption report provided by Utility Billing when the amount of water billed was correct, but the water consumption was not. This primarily occurred on locations when the billing party changed or the meter at a location was changed out. These corrections reduced the billed metered gallons for 2018 by 37 MG and increased estimated water losses by 37 MG. Staff will meet with Utility Billing to see how to prevent these errors from occurring in the future. We hope that these types of errors will be eliminated with the implementation of the new Customer Information System scheduled to be deployed in 2020.

3. **Non-Revenue Water**
   a. ***Unmetered Utility Facilities:*** Staff did a review of the water and wastewater plants, water pump stations and sewer lift station sites to identify any unmetered treated water consumption. We found one underground tank and one pump station with unmetered irrigation systems, which we plan to correct by the end of 2020.

      We also found that several of the pump stations and lift stations have unmetered internal hose bibs used very infrequently to wash down the floor or equipment.

The water usage is so minimal and so infrequent that it does not warrant the time and expense of installing meters at these locations.

b. **Fire Pump Tests & Fire Sprinkler System Installations:** Beginning with this audit, we have included an estimated number of gallons used for annual fire pump tests and for the initial installation of new fire sprinkler systems.

c. **Customer Metering Inaccuracies:**

Small Meters: Water Metering began annual meter testing a sampling of ¾" meters starting in 2017 and of 1" meters starting in 2018 rather than using the test results for small meters flagged for some type of issue (high read, no read, etc.) applied to the consumption of water going through similar meters in the field which has greatly improved the average test results applied to the water consumption that occurred through similar meters in the field during the audit year.

Medium & Large Meters: From the 2017 audit, we discovered that not all meter makes and models had meter test results within the past 5 years, yet the medium sized meters were supposed to be tested every 5 years and the large sized meters were supposed to be tested yearly where feasible and practical. In 2018, Water Metering performed meter tests on a sampling of the majority of the makes and models that were missing test results within the past 5 years.

During the 2018 audit, we looked further into this issue and found that of the 833 medium to large size meters in the field, 286 were past due for tests. We discovered that the query developed by IT that the Water Metering group uses to pull which of the 1.5" to 6" meters in the field should be tested each year was incomplete. Water Metering will focus on testing the past due meters with the highest consumption first and then to catch up with the other past due meter tests over the next few years. The implementation of the new Customer Information System, set to be deployed in 2020, should help to eliminate this type of query error from occurring in the future.

We anticipate that at least initially these test result will be lower, but will improve as replacement of slower meters occurs in the field. This could represent a substantial improvement in capturing more revenue for water that is already reaching the end consumer.

d. **Real Losses:** We saw a reduction of 133 MG from 2017 to 2018 in the estimated real water losses from system leakage. We have been working on identifying our worst performing water lines and replacing or rehabilitating these lines as budget allows. In our proactive leak detection efforts, our Water Operations crews employ acoustic leak detection technology. The hope is that such efforts will continue to help reduce real water losses.

4. **Water Loss Training:** Representatives from Utility Billing, Meter Reading, Water Resources, and Water Metering will attend a state-funded training offered by the Colorado Water Loss Initiative (CWLI) on May 9th to provide training & technical assistance on the American Water Works Association's (AWWA) M36 water loss and revenue recovery program. This training will help participants understand how the data from each of their work groups fits into the overall audit process. We hope that by having attendees from these various groups present at the training that they will be able to help identify areas in each of their work groups where they could improve the accuracy and tracking of water consumption.

Attachment B

LOVELAND UTILITIES COMMISSION

2018 Water Loss Audit

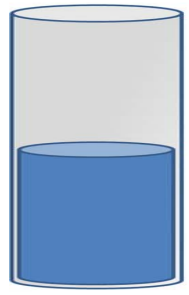
Michelle Erickson, Technical Specialist

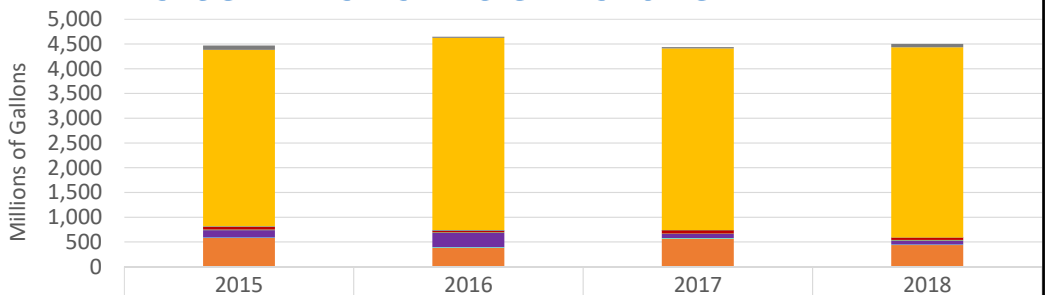
May 15, 2019

Water Balance Table • Loveland Water & Power • 2017 Calendar Year • Volume in Million Gallons • Dollar Value NRW

		Water Exported 69.047	Billed Water Exported 69.047			Revenue Water 69.047
Volume from Own Sources 4,492.857	System Input Volume 4,500.900	Water Supplied 4,431.853	Authorized Consumption 3,893.145	Billed Authorized Consumption 3,843.638	Billed Metered Consumption 3,843.610	Revenue Water 3,843.638
					Billed Unmetered Consumption 0.028	
				Unbilled Authorized Consumption 49.507	Unbilled Metered Consumption 0.015	Non-Revenue Water (NRW) 588.215
					Unbilled Unmetered Consumption 49.492	
			Water Losses 538.708	Apparent Losses 102.381	Unauthorized Consumption 11.080	
					Customer Metering Inaccuracies 81.692	
Water Imported 8.043					Systematic Data Handling Errors 9.609	
				Real Losses 436.327		

Water Balance Table





	2015	2016	2017	2018
Water Exported	87	22	24	69.047
Billed Metered	3564	3884	3671	3844
Billed Unmetered	0	0	0	0
Unbilled Metered	12	12	1	0
Unbilled Unmetered	55	32	67	49
Unauthorized Consumption	11	12	11	11
Customer Metering Inaccuracies	149	286	81	82
Systematic Data Handling Errors	9	10	9	10
Real Losses	580	386	569	436
System Input Volume	**4,467 MG**	**4,622 MG**	**4,435 MG**	**4,501 MG**

Decant Water Pipeline Valve

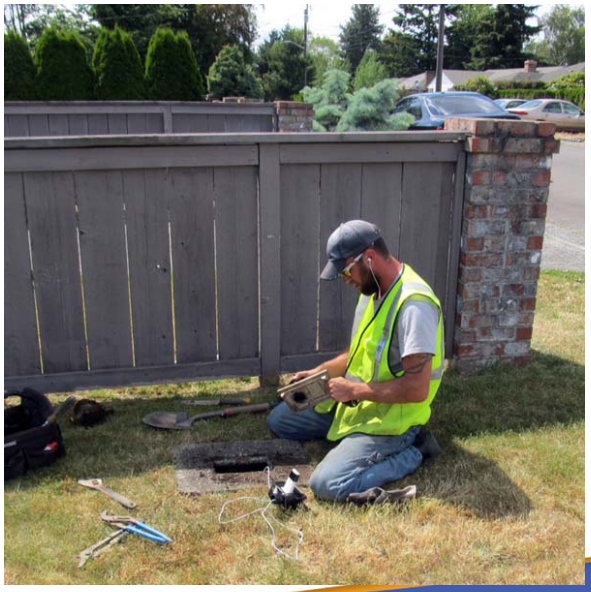
LOVELAND UTILITIES COMMISSION

Drawdown Test of Chasteen's Grove Tank

- Meter accuracy of 103.85%
- Over registered 171 MG in 2018

LOVELAND UTILITIES COMMISSION

Water Consumption Report Corrections



- 37 MG Correction
  - Final reads
  - Meter exchanges
  - Meter reading/transmitting errors
  - Data entry errors

LOVELAND UTILITIES COMMISSION

Construction Water

- 530,815 Gallons in 2018

LOVELAND UTILITIES COMMISSION

Sanitary Sewer Jetting

- Reimbursement from wastewater utility beginning in 2019
- Between 3 MG to 12 MG annually from 2015 to 2018

LOVELAND UTILITIES COMMISSION

Unmetered Utility Facilities

- Irrigation Water 0.267 MG
  - 29th St Pump Station – meter install Spring 2019
  - Namaqua Hills Tank - meter install in 2020
- Internal hose bibs at water pump stations and sewer lift stations

LOVELAND UTILITIES COMMISSION

Fire Hydrant Flow Tests

- Beginning in 2019, a flat fee charged for each hydrant meter flow test
- 0.119 MG for 2018

LOVELAND UTILITIES COMMISSION

Annual Fire Pump Tests

- 6 Locations with fire pumps in our service territory
- Estimated 0.140 MG in 2018

LOVELAND UTILITIES COMMISSION

Initial Fire Sprinkler Installations

- 0.140 MG in 2018
- Based on building type and square footage

LOVELAND UTILITIES COMMISSION

Water Meter Testing

- **Small Meters:** Test a sampling of meters in service annually
- **Medium to Large Sized Meters:** Query error resulted in 286 meters of the 833 meters in service being past due for meter testing.
- **Under Registration:** 81.692 MG valued at $604,521

LOVELAND UTILITIES COMMISSION

Total Water Loss (Apparent & Real)

- Total water losses decreased 210 MG from 2015 to 2018

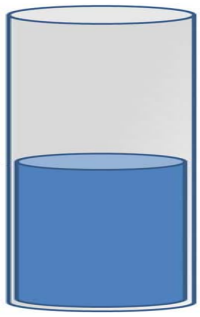
LOVELAND UTILITIES COMMISSION

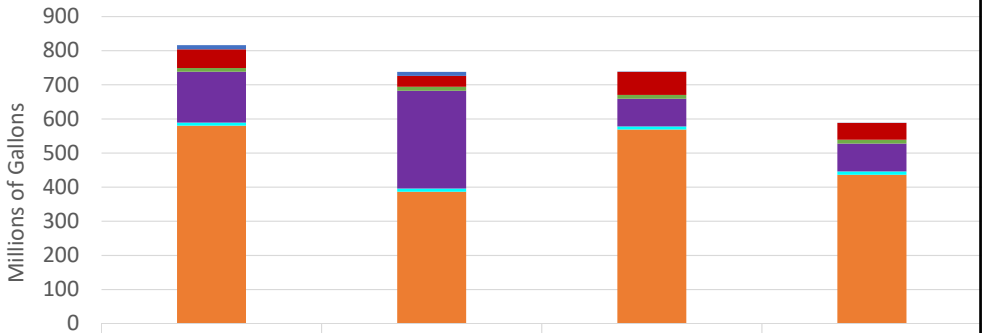
Real Water Losses

- Reduction of 133 MG from 2017 to 2018
- Rehab/Replace the worst performing lines
- Employing leak detection equipment
- Infrastructure Leakage Index of 2.83

LOVELAND UTILITIES COMMISSION

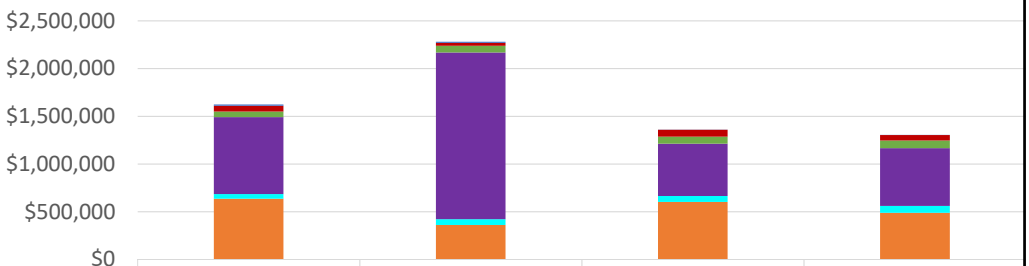
Volume of Non-Revenue Water





	2015	2016	2017	2018
Unbilled Metered	12	12	1	0
Unbilled Unmetered	55	32	67	49
Unauthorized Consumption	11	12	11	11
Customer Metering Inaccuracies	149	286	81	82
Systematic Data Handling Errors	9	10	9	10
Real Losses	580	386	569	436
Totals	**816 MG**	**738 MG**	**738 MG**	**588.215 MG**

Cost of Non-Revenue Water



	2015	2016	2017	2018
Unbilled Metered *	$13,356	$11,132	$1,195	$17
Unbilled Unmetered *	$60,075	$29,740	$71,451	$55,492
Unauthorized Consumption **	$59,245	$70,488	$74,522	$81,992
Customer Metering Inaccuracies **	$806,128	$1,747,322	$547,769	$604,521
Systematic Data Handling Errors **	$48,203.10	$59,238	$62,040	$71,107
Real Losses *	$636,695	$361,759	$602,734	$489,221
Totals	**$1.6 M**	**$2.3 M**	**$1.4 M**	**$1.3 M**

** Valued at **Variable Production Cost** = variable cost to treat and deliver the next unit of water*
*** Valued at **Customer Retail Unit Cost** = charge the customer pays for the utility service*

Operational Efficiency

Performance Indicator	Metric
Apparent Losses per Service Connection per Day	10.37 gallons/connection/day
Real Losses per Service Connection per Day	44.20 gallons/connection/day
Real Losses per Service Connection per Day per PSI	0.68 gallons/connection/day/psi
Current Annual Real Losses (CARL)	436.33 million gallons/year
Infrastructure Leakage Index (Current Annual Real Losses/Unavoidable Annual Real Losses)	2.82 times the technical minimum system loss

LOVELAND UTILITIES COMMISSION

LOVELAND UTILITIES COMMISSION

QUESTIONS?

LOVELAND UTILITIES COMMISSION

AGENDA ITEM: 10
MEETING DATE: 5/15/2019
SUBMITTED BY: Michelle Erickson
STAFF TITLE: Technical Specialist

ITEM TITLE:

2018 Levels of Service Update for Water and Wastewater Utilities

DESCRIPTION:

This item provides a yearly update of our 2018 Levels of Service performance compared to prior years for the Water and Wastewater Utilities.

SUMMARY:

Our Levels of Service (LOS) targets are the minimum acceptable levels that water and wastewater should strive to maintain. When we initially worked on setting our LOS, we took into consideration LUC, internal staff, and customer expectations, regulatory requirements, actual performance, and the physical capabilities and limits of our current assets. Please see the attached presentation slides to view the results of our 2018 LOS compared to historical records back to 2009.

Water and Wastewater Utilities

As part of the Loveland Water and Power's Asset Management Program, we have developed Levels of Service for the Water and Wastewater Utilities. Asset management includes managing infrastructure capital assets to minimize the total cost of owning, operating, and maintaining assets at acceptable Levels of Service. Defining Levels of Service, tracking performance against these targets, and working to improve in areas in which we fall short are a key part of our asset management program. This is our fourth year in which staff has tracked Levels of Service performance criteria in both the Water and Wastewater Utilities in the following areas:

- Regulatory compliance
- Quantity of services provided
- Availability of services provided
- Reliability of services provided
- Responsiveness to outages or blockages
- Aesthetics (odor, taste, smell, etc.)

Improvements in LOS performance require additional resources. For instance, if we want to see fewer leaks, then we need to invest additional resources (time, money, equipment, manpower, etc.) to repair or replace failing water lines. It is important to balance the costs verses the benefits of improvements in LOS. For example, a target of zero water main breaks in any given year may sound desirable, but it is not likely that customers would be willing to pay substantially more for the associated costs required to provide and maintain that high of a water availability LOS. LOS improvements require additional operational costs, which in turn require additional funding through mechanisms such as debt financing or raising the rates charged to customers.

Measuring our progress and comparing it against our target LOS helps us to better focus on the areas that need improvement and helps us better communicate which areas need additional resources for progress

to be made. LOS requirements may need to be updated to adapt to changes such as population growth, increased regulatory requirements or technology improvements. Our hope is that over time, we will have the resources in place to meet all of our desired LOS performance measures, while still maintaining our assets in a cost-effective manner.

RECOMMENDATION:

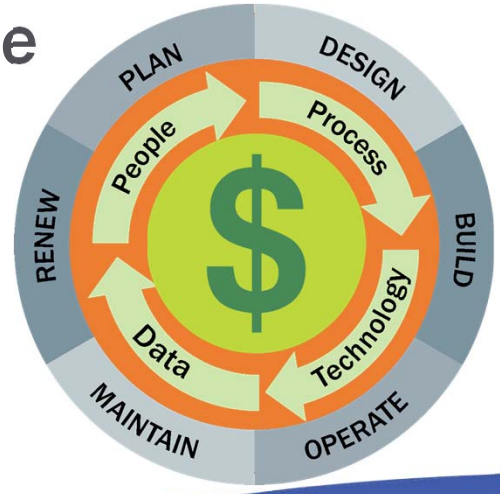
Staff item only. No action required.

ATTACHMENTS:

- Attachment A: Presentation Slides

LOVELAND UTILITIES COMMISSION

2018 Water & Wastewater Levels of Service



Michelle Erickson
Technical Specialist
May 15, 2019

LEVELS OF SERVICE (LOS)

Levels of Service: Sets the minimum acceptable levels that the Water & Wastewater Utilities should strive to maintain for:

- Regulatory Compliance
- Quantity
- Availability & Capacity
- Reliability
- Responsiveness
- Aesthetics & Quality

LOVELAND UTILITIES COMMISSION

LOS • WATER REGULATORY COMPLIANCE

Target Performance per Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Safe Potable Water: *Compliance with Drinking Water Standards and all requirements of the Safe Drinking Water Act*										
100% Compliant	✓	✓	✓	✗	✓	✓	✓	✗	✗	✓
No Tier Notifications	✓	✓	✓	✓	✗	✓	✓	0	0	2
Fluoride: *Optimally fluoridate water*										
Number of months fluoride did not meet the optimally fluoridated requirements set by the state.	✓ 0	✗ 2	✗ 7	✗ 12	✗ 12	✗ 4	✓ 0	✓ 0	✓ 0	✓ 0

LOVELAND UTILITIES COMMISSION

LOS • WATER QUANTITY

Target Performance per Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Pressure: *Minimum Pressure at Meter*										
All properties receive at least 40 PSI static pressure where not prevented due to high property elevations.	?	?	?	?	?	✗ 2	✗ 1	✗ 4	✗ 1	✓
Flow: *Water system maintained to meet fire suppression flow requirements.*										
Maintain a Public Protection Classification of 2 in the Water Supply area of the survey conducted by the Insurance Services Office (ISO).	?	?	?	?	?	?	✓	✓	✓	✓

LOVELAND UTILITIES COMMISSION

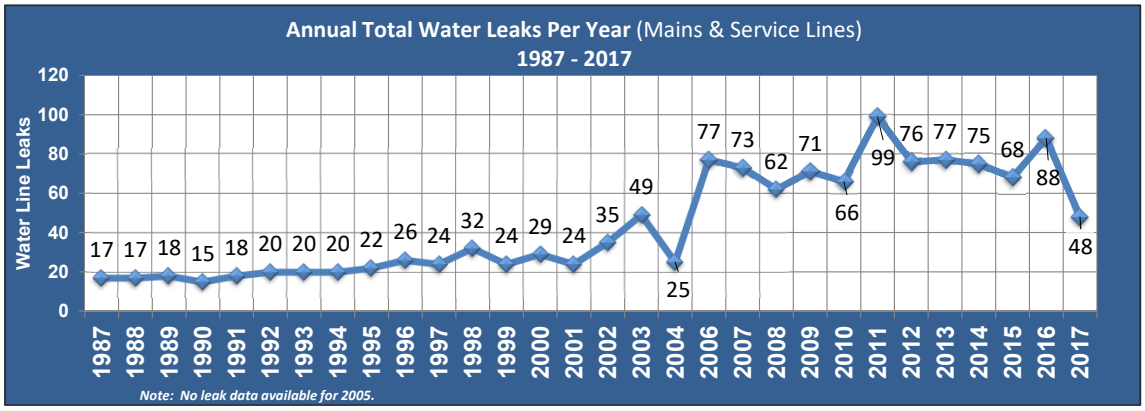
LOS • WATER AVAILABILITY

Target Performance per Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Drought Storage: *System to endure a 100-year drought event without mandatory watering restrictions*										
Did not implement mandatory watering restrictions.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Did not consider implementing mandatory watering restrictions.	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓
System Capacity: *Treatment capacity and system storage*										
Capacity to supply peak demand to all customers utilizing interconnects if necessary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

LOVELAND UTILITIES COMMISSION

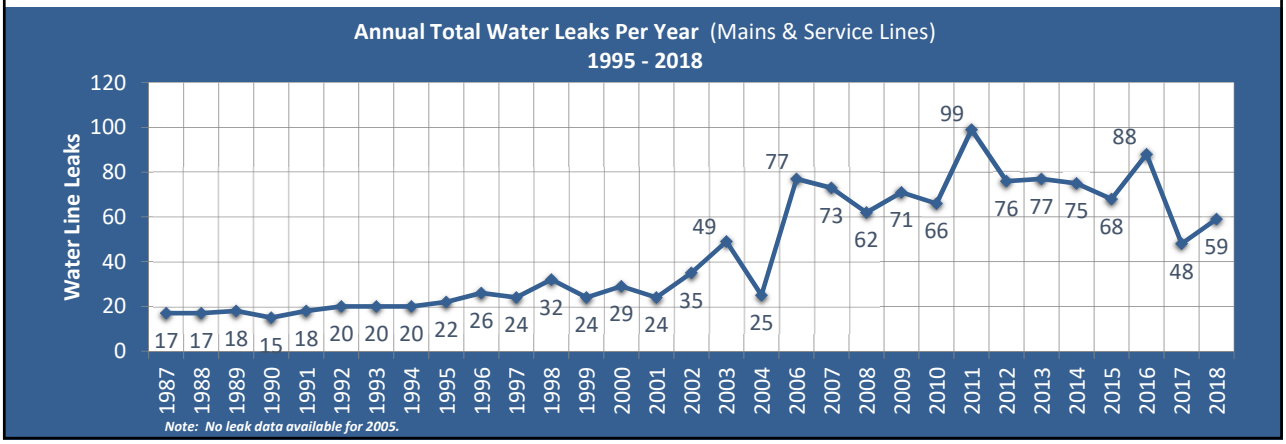
LOS • WATER RELIABILITY

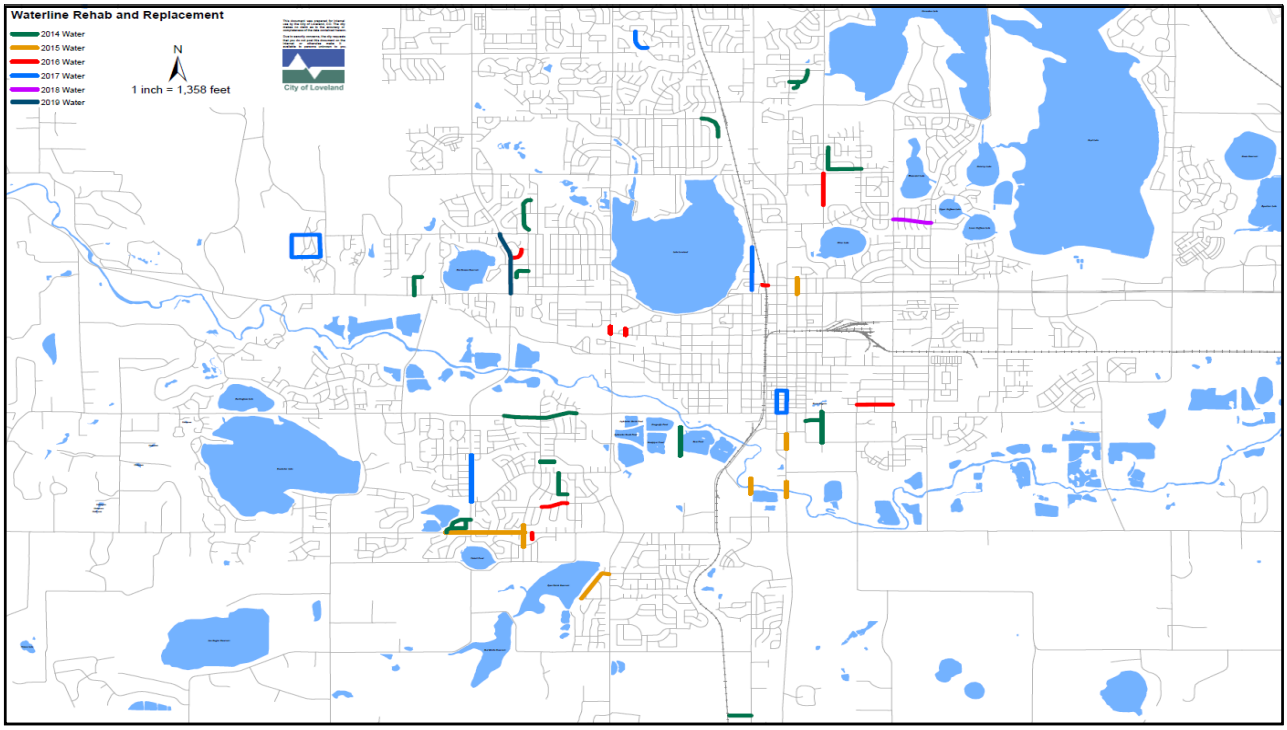
Target Performance per Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Unplanned Interruptions: *Number of un-notified system interruptions*										
No more than 2 un-notified interruptions on any 1000' of waterlines	✗ 7	✗ 6	✗ 11	✗ 9	✗ 12	✗ 9	✗ 6	✗ 2	✗ 1	✗ 1



LOS • WATER RELIABILITY

Target Performance per Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Unplanned Interruptions: *Number of un-notified system interruptions*										
No more than 2 un-notified interruptions on any 1000' of waterlines	✘ 7	✘ 6	✘ 11	✘ 9	✘ 12	✘ 9	✘ 6	✘ 2	✘ 1	✘ 1





LOS • WATER RESPONSIVENESS

Target Performance per Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Response to Unplanned Water Outages: *Time to respond to unplanned water outages*										
Respond on-site to all water outage complaints within 1 hour	?	?	?	?	?	✓	✓	✓	✓	✓

LOS • WATER AESTHETICS

Target Performance per Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Water Quality Complaints: *Number of water quality complaints*										
Water quality complaints do not exceed more than 1% of the number of active water meters.	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓

LOVELAND UTILITIES COMMISSION

LOS • WASTEWATER REGULATORY COMPLIANCE

Target Performance per Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Compliance with Wastewater Permit Limits & Requirements: *Compliance with all regulatory and permit requirements*										
Zero exceedances and zero violations to all regulatory and permit requirements	✓	✓	✓	✗ 2	✓	✗ 1	✗ 3	✗ 3	✗ 2	✓

LOVELAND UTILITIES COMMISSION

LOS • WASTEWATER AVAILABILITY

Target Performance per Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
System Capacity: *Collection, treatment, and lift station capacity and performance even during a 25-year rain storm event*										
0% exceedance of collection system and treatment plant capacity	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
No sanitary sewer overflows	✗ 1	✓	✓	✓	✗ 2	✗ 4	✓	✓	✗ 1	✓

LOS • WASTEWATER RELIABILITY

Target Performance per Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Unplanned Interruptions: *Number of sewer main backups*										
No more than 2 sewer main backups.	✗ 13	✗ 2	✗ 7	✗ 8	✗ 4	✗ 14	✗ 4	✗ 5	✗ 7	✗ 12

LOVELAND UTILITIES COMMISSION

LOS • WASTEWATER RESPONSIVENESS

Target Performance per Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Response to Unplanned Blockages: *Time to respond to blockage complaints*										
Respond to all blockage complaints on-site within 1 hour.	?	?	?	?	?	✓	✓	✓	✓	✓

LOS • WASTEWATER AESTHETICS

Target Performance per Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Wastewater Odor Complaints: *Number of odor complaints related to the wastewater system*										
No more than 10 odor complaints	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

LOVELAND UTILITIES COMMISSION

Benefits of Levels of Service

- **Narrow the Focus:** Helps narrow the focus to areas in which we are not meeting the minimum Levels of Service
- **Project Identification:** Helps identify areas where we may look at doing repair, replacement or risk mitigation projects
- **Communication Tool:** Ties results to funding and provides justification for decision-making and resource allocation
- **Trending:** Measures and documents actual performance against defined performance criteria which leads to greater understanding of trends and allows benchmarking against other utilities
- **Prioritization Tool:** Use as an additional tool to help prioritize capital improvement projects in conjunction with other tools such as:
  - Leak frequency and blockage maps
  - Budget projections
  - Project cost projections

LOVELAND UTILITIES COMMISSION

LOVELAND UTILITIES COMMISSION

QUESTIONS?

LOVELAND UTILITIES COMMISSION

AGENDA ITEM: 11
MEETING DATE: 5/15/2019
SUBMITTED BY: Joe Bernosky
STAFF TITLE: Director

ITEM TITLE:

Commission & Council Report

SUMMARY:

Discuss events that the Loveland Utility Commission Board members attended, special topics and any City Council items related to the Water and Power Department from the past month.

- City Council Report

RECOMMENDATION:

Commission/Council report only.

LOVELAND UTILITIES COMMISSION

AGENDA ITEM: 12
MEETING DATE: 5/15/2019
SUBMITTED BY: Joe Bernosky
STAFF TITLE: Director

ITEM TITLE:
Director's Report

GENERAL & PREVIOUS LUC MEETING FOLLOW UP ITEMS:

EVENTS:
Northern Water Tours: Northern Water will conduct full-day tours of the Colorado-Big Thompson and Windy Gap projects again this summer. We are sponsoring two East Slope tours that highlight our water efficiency activities, water operations and proposed storage projects. The West Slope tour travels through Rocky Mountain National Park to the collection facilities for the C-BT and Windy Gap projects. There is no charge for the tours and a box lunch is provided. All tours leave from and return to Northern Water's headquarters in Berthoud.

If you would like to attend, please register online at www.northernwater.org. Click the Calendar link at top of the Home page. On the calendar, choose one of the tour dates listed below and follow the registration instructions. If you are unable to register online, please call our registration line at 970-622-2220.

East Slope *(7:30 a.m. – 4:30 p.m.)*	West Slope *(7 a.m. – 6 p.m.)*
Thursday, May 23, 2019	Tuesday, June 4, 2019
Wednesday, Sept. 18, 2019	

OPERATIONS:
Water Operations:
Boyd Lake Water Main Extension: Phase 2 Project: Gerrard Excavating successfully installed the new 16" water main in Boyd Lake Avenue. The majority of the water main was installed via horizontal directional drilling since it was installed under the GLIC (Greeley/Loveland) Ditch. This completes the extended parallel feed from the Mountain View Pump Station to the P8 zone, allowing more flexibility in meeting current demands as well as providing the ability to meet future water demands. This project was reprioritized to 2018-2019 due to the construction of new roundabout at 15th Street and Boyd Lake Avenue. The water division wanted the water main installed prior to any final paving of Boyd Lake Avenue for the new roundabout.

Wastewater Treatment Plant Biological Nutrient Removal and Digester Project: With just four months of construction remaining, Garney Construction begins to focus their attention on the startup of the new digester complex. Equipment checkout, startup, and training activities are underway utilizing non-potable water. Once all systems are verified to operate properly, biological process, i.e. sludge, will be introduced to the new digesters at the end of May. Crews continue the final push to complete the complex including various piping, valves, electrical and instrumentation at the digester mechanical building, boiler room, ferric chloride building, and the motor control center. Plant staff are excited to see the headworks renovations complete which included the startup of the long-awaited step screens, pictured left. This is a significant increase in the level of screening and removal of rags and other inorganic material compared to previously installed equipment.

Other activities taking place around the project site include the rehabilitation of the primary sludge pump station, completion of the ultraviolet (UV) disinfection hydraulic improvements - pictured below; access road improvements on the north side of the digester complex, concrete sidewalk replacement, and the early stages of site restoration and landscape improvements.

Wastewater Treatment Plant (WWTP) and Water Treatment Plant (WTP) Administrative and Operator Office Renovation Project: As part of the 10-year capital project planning process, the department has identified the need to renovate the existing administrative / operator spaces at both the wastewater treatment and the water treatment facilities. The WWTP administration building was originally constructed in 1974 and was last renovated in 1986. The WTP administration building was constructed in the 1960's and expanded upon in 1980. Both facilities have recently completed large-scale capital improvements to the treatment components in order to keep up with changing regulatory requirements, population growth, and aging infrastructure. However, the administrative and operation areas within these facilities were not updated with those projects.

The department has recently selected a local architect to assist in the planning and cost estimating related to these proposed renovation projects. These improvements will improve the functional layout of the workspaces and update the interior finishes and fixtures, and therefore will have a positive impact on employee morale and retention, and will improve public perception during site tours and other public events.

The administration building renovations at the wastewater treatment plant are scheduled to begin once the water quality staff move into their new facility in the fall of 2020. The administration building renovations at the water treatment plant are tentatively scheduled for the 2023 – 2024 timeframe. Photos of administration areas below.

Power Operations:

Electric Metering: In April, the electric metering group received new shop equipment. Pictured below is equipment used for electric meter accuracy testing. The City of Loveland's standards of accuracy (parameters) are + or – ½ of 1 percent. All electric meters must fall within 99.5 to 100.5 in order to meet the City's allowable limits for metering accuracy. The Colorado Utility Commission requires its regulated utility companies to fall within + or – 2 percent 98 to 102. Because Loveland is a municipality, we dictate our own regulations for meter accuracy to be a much tighter parameter. We also use similar equipment to verify in service meter accuracy in the field. The standards that are built into the testing equipment are traceable to NIST (National Institute of Standards and Technology).

Thompson R2J Career Fair: Employees from the electric and communications utilities hosted a booth at the 2019 Thompson R2J Career Fair on April 18, 2019. This Career Fair was open to 6th through 12th grade students and their families, and was held at Thompson Valley High School. This booth for the electric and municipal fiber utilities had employee representation from our line crews, administration, and electrical engineering. Staff provided information about the various careers and career paths, our apprenticeship programs, salary ranges, and technical and essential skills that are required to be successful in our industries. Staff enjoyed visiting with the students and their families and demonstrating some of the tools and equipment used in the electric and telecommunications industries. Many electric utilities are struggling with labor shortage and hiring qualified employees, and Loveland Water and Power is honored to participate in events like this in our community to engage the future workforce.

UTILITY APPLICATION SERVICES:

New Employees: Old faces, new positions. CJ Mueller is now our full-time GIS Specialist, freeing up our temporary GIS Specialist position. Ryan Smith is now a Utility Business Analyst focusing on the fiber rollout. With this change, our Senior GIS Specialist position is now posted to be backfilled.

Designer: CU library is in, we are targeting a June go-live.

Project & Request Tracking: One of the Technology Roadmap recommendations was to establish a tracking system for our team's work. Since the beginning of 2017 we have configured Cityworks for this purpose. The big projects, tracked as work orders, are reported to be approved and prioritized by our division's team. There are currently 25 approved projects in our queue, 7 of which currently have the status of "In Progress". The smaller, maintenance type jobs are tracked as service requests. So far this year we have completed 85 requests within an average of 7.51 days. These are the numbers broken down by type since 2017:

Application Requests – 6.3 days
Application Support – 9.77 days
Data Requests – 7.14 days
Hardware Support – 9.81 days
Map Requests – 4.92 days
Report Requests – 7.14 days

UTILITY ACCOUNTING:

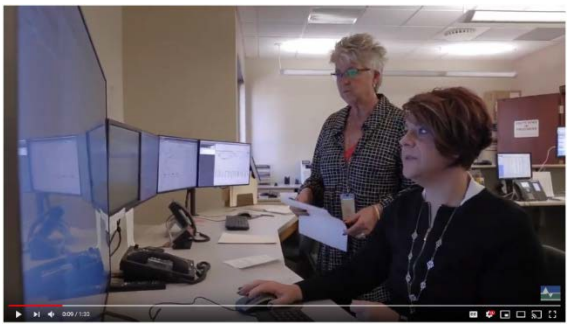
10-Year CIPs Submitted – The 10-Year CIPs for water, raw water, wastewater and power have been submitted to the Budget Office. These CIPs will be presented to City Council at a study session on June 11. Over the next 10 years (2020-2029), water is projected to have $127.4 million of capital expenditures, wastewater $82.5 million and power $167.7 million. Raw water capital expenditures for 2020-2029 are $9.7 million, which does not include $55.6 million that is budgeted in 2019 for construction of the Chimney Hollow Reservoir, and the $55.6 million will likely roll into 2020. In assembling these CIPs to fit within the framework of the revenue projections, operating expenses and capital expenditures of each of the utilities, loans have been programmed in for both rehabilitation capital and growth-related capital projects in future years. The amount of loans that is programmed in over the 10-year period is $80.9 million, an increase of $14.2 million over last year's 10-year plans. The primary drivers for the increased borrowing are: 1) an increase in the estimated cost of the water project East Gravity Zone Water Line along 28th St SW from Taft to Garfield to Hwy 402; 2) an increase in the estimated cost of the Chimney Hollow Reservoir; and 3) the new inclusion in this year's 10-year plans of the Service Center Expansion.

Power Rate Study Direction – Cost-of-service rate studies are conducted every three years for each of the utilities, and 2019 is the year for power's study. At the April 17, 2019 LUC Meeting, staff was looking for direction from the LUC on how to approach rate design for 2020 on two important topics: the Monthly Base Charge and the Residential Self-Generating rates. Direction from the LUC was to stay with the current methodology of what's called the Minimum System Requirement as the basis for calculating the Monthly Base Charge instead of recovering all fixed costs in the Monthly Base Charge. On the Residential Self-Generation rate design, the direction was to change from the current methodology of giving full retail credit for excess generation and instead give credit at the same rate that it costs to purchase power from PRPA. This input will be given to City Council at their May 14, 2019 study session, as direction on these two topics will be sought from the Council, as well.

Still Among the Lowest – The Colorado Association of Municipal Utilities (CAMU) has published their most recent survey of typical electric bills, and Loveland continues to have one of the lowest bills in the state. This survey is updated twice a year, and the most recent survey is based on rates effective on January 1, 2019.

The survey includes 57 utilities from throughout the state, and includes municipally-owned utilities, co-ops and investor-owned utilities. Of the 57 utilities surveyed, Loveland had between the 4th lowest and 12th lowest typical bill for all of the categories surveyed (Residential, Small Commercial, Large Commercial and Industrial).

CUSTOMER RELATIONS:



A Day in the Life – Dispatch: Customer Relations released their latest video in the "day in the life" series in April. This video's focus was on Dispatch. Dispatch has a combined 40 years of experience. This video emphasizes the crucial role they play in safety, coordination and customer service. Video available here: https://www.youtube.com/watch?v=JcUCJuQx1ac&t

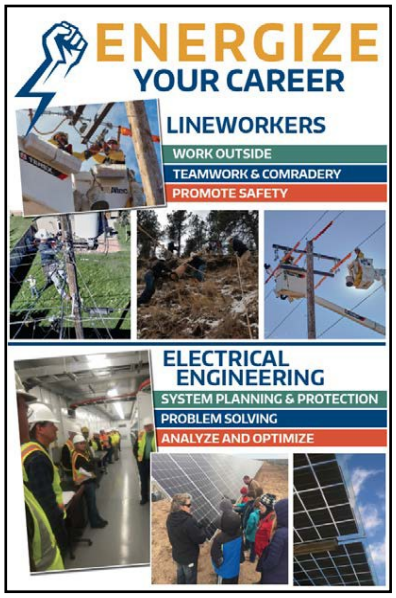
Raptors of Northern Colorado Community Lecture: LWP partnered with Parks and Recreation to feature Scott Rashid of the Colorado Avian Research and Rehabilitation Institute in Late March. With the Senior Center room booked to capacity (80 people), the Northern Colorado Raptors lecture was once again a favorite topic for the Loveland Community.

Garden Lecture Series: In partnership with Resource Central, Customer Relations assisted in facilitating "The Three B's – Award Winning Plants for Bees, Butterflies and Beauty!" with speaker Pat Hayward of Plant Select. Attendees learned the principals of xeric gardening and were provided a selection of plants most appealing to pollinators. After the event, several citizens thanked Customer Relations representatives for providing the learning opportunity.

World Water Day: LWP celebrated World Water day this year with a short social media video emphasizing the importance of water for our community as well as LWP's continuous efforts to provide clean water to Loveland citizens.

Lineman Appreciation Day: April 18th was a day to express our utmost appreciation to the great men and women that work hard to keep the lights on for U.S. citizens. Customer Relations celebrated the innovation and dedication of Loveland Lineworkers this year with a short commemorative video and some breakfast burritos for the whole power crew. The Lineman Appreciation Day video may be one of the most popular videos of 2019—racking up over 700 views in the first 2 hours posted on Facebook. Video Available here: https://www.youtube.com/watch?v=1iXW2dNHIck&t

Multi-Family Water Efficiency: In partnership with Franklin Energy Services LLC and Efficiency Works Business, LWP has completed its first large scale, multi-family water efficiency project. The Lincoln Place Apartments have undergone a large-scale upgrade which includes the installation of 169 water-efficient showerheads, 321 bath faucet aerators and 135 kitchen aerators. Early estimates show a potential water savings of 815,000 gallons per year from these upgrades.



Thompson School District Career Fair: The Power team requested a special commission this year from Customer Relations for the Annual Career Fair with Thompson School District; an eye-catching poster set to draw the attention of the crowd. Working in the power industry requires specialized education. With this new request in-hand, power crews encouraged local high school students to start considering their steps towards a career in this powerful industry.

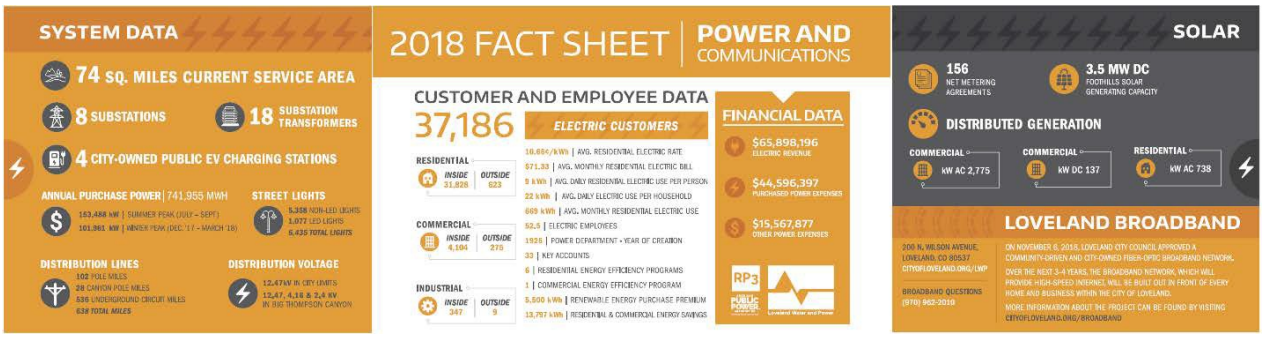
Key Accounts Individual Meetings: Customer Relations is nearing the completion of the individual meetings with Key Account customers. These Meet-and-Greets have revealed themselves to be an excellent opportunity for customers to speak about their needs and establish a strong rapport with LWP.

Design-It-Yourself: How to Start a Xeriscape Garden: LWP partnered with Resource Central in this seminar featuring a professional landscape designer and horticulturist. The guest speaker discussed the many facets of a landscape to consider when creating a design, including soil quality, microclimates, and watering needs. Then attendees learned how to build a base map and plant list.

Children's Water Festival (CWF): The Annual Children's Water Festival event took place on May 13th this year. This year was an exciting event with LWP staff assisting with activities, T-shirt designs, and transportation. The 2019 T-shirt design was a vibrant water theme.

Slow the Flow: LWP is partnering with Resource Central to offer free sprinkler audits to Loveland residential water customers. Slow the Flow is a free sprinkler inspection program designed to optimize sprinkler operations and be efficient with outdoor water use. This free pilot program enables Loveland customers to have their automatic, underground sprinkler systems inspected by trained water auditors who inspect for performance and efficiency. After the inspection, residents will receive a customized watering schedule and tips for easy, do-it-yourself sprinkler maintenance. Inspections are available June 11 through August 20 while supplies last. Customer interested may register here: https://resourcecentral.org/sprinkler

Fact Sheet: Customer Relations has given the Fact Sheet a new look this year—providing the same valuable info in a stylish package. This new design will be available online and on paper in the next few weeks.



Community Outreach: Loveland Water and Power will be attending the following upcoming events:

Facebook Insights (April 2019):

- Reach (unique users) – 15,686 people
- Engagement (unique users) – 1386 people
- Impressions (total count) – 37,180 people

Media:

- Reporter Herald – April 10, 2019: Loveland Arbor Day festivities will include Run for the Trees
- Reporter Herald –April 11, 2019: What's that noise in Big Thompson Canyon? On Tuesday, it will be explosives
- Reporter Herald – April 11, 2019: City of Loveland to start flushing fire hydrants on Monday
- Bizwest – April 11, 2019: Platte River Power Authority hosting students solar car races
- Reporter Herald –April 13, 2019: Regional middle schoolers test solar, battery-powered cars in Loveland
- North Forty News – April 13, 2019: PRPA Report indicates possible leaking leading to contamination
- EarthTechling – April 13, 2019: Idaho power is replacing coal with 100% clean energy
- Reporter Herald – April 16, 2019: Water valve repair will close southwest corner of Wilson Avenue, 29th Street intersection
- Longmont Observer – April 20, 2019: Nextlight-Longmont Wins 2019 Cornerstone Award for excellence
- Reporter Herald – April 22, 2019: Meet the group that wants to reform the Loveland City Council
- CSU College News – April 23,2019: A decade in the sun: CSU marks anniversary of first solar installation
- Energy News Network – April 23, 2019: Xcel-backed Colorado bill prompts debate over vision for utilities' future
- KUNC – April 25, 2019: A look at the long road to zero- carbon electricity in Colorado
- Reporter Herald – April 29, 2019: PRPA: Survey results support move toward renewables