

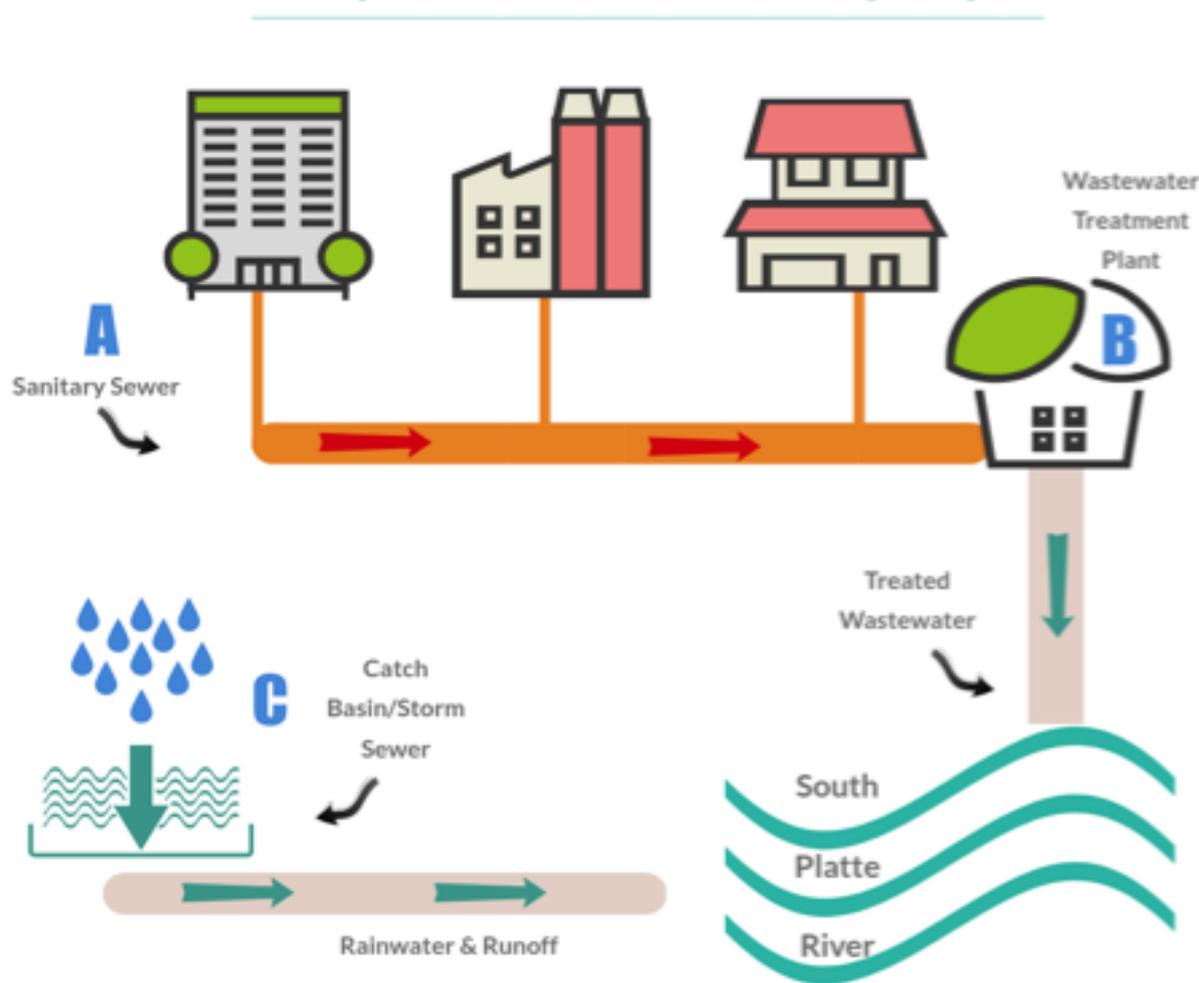


City of Littleton Wastewater Utility

Utility Overview

July 10, 2018

Utility Fees - What Do They Pay For?



A
Sewer Collection Fees pay for maintaining the system that carries wastewater from homes and businesses to the treatment plant

B
Sewer Treatment Fees pay for processing and cleaning wastewater before flowing it back into rivers and reservoirs

C
Stormwater Fees pay for collecting runoff, control flooding and clean water before it enters waterways like the Platte River

The Difference Collections v. Treatment

- **Wastewater collection** systems gather the used water from our homes, businesses and industries and convey it to a wastewater treatment plant. This type of system is also called a sanitary sewer.
- **Wastewater collection** infrastructure includes pump stations, force mains, and sewers.



Littleton Sewer Utility Budget

- 2017 Revenues - \$19,344,758
- 2017 Expenditures - \$13,371,365
 - Collection - \$1,120,870
 - Treatment - \$12,250,495



System Stats

- **128** miles of sanitary sewer pipe
- Size range from 4” diameter to 66” diameter
- 9 sanitation districts connect to the City’s interceptors
 - Bow Mar
 - Columbine
 - Denver
 - Englewood
 - Grant (Grant/Platte Canyon, Grant SW Metro)
 - Littleton
 - Meadowbrook
 - Platte Canyon
 - SW Metro



City Sewer Rate History (1 of 3)

DATE	SEWER RATE		SEWER TAP FEE													
	INSIDE CITY	OUTSIDE CITY	INSIDE CITY	OUTSIDE CITY												
September 10, 1962	\$13 Annually	\$19.50 Annually	\$75.00 first unit	\$100.00 first unit												
October 26, 1972	45% of water service bill. Minimum of \$2.75/quarter/ unit or per sewer service unit.	<table border="0"> <tr> <td>3/4 inch</td> <td>\$8.00</td> </tr> <tr> <td>1 inch</td> <td>12.00</td> </tr> <tr> <td>1¼ inch</td> <td>20.00</td> </tr> <tr> <td>1½ inch</td> <td>30.00</td> </tr> <tr> <td>2 inch</td> <td>50.00</td> </tr> <tr> <td>3 inch</td> <td>100.00</td> </tr> </table>	3/4 inch	\$8.00	1 inch	12.00	1¼ inch	20.00	1½ inch	30.00	2 inch	50.00	3 inch	100.00	\$300.00 per unit	\$450.00 per unit
3/4 inch	\$8.00															
1 inch	12.00															
1¼ inch	20.00															
1½ inch	30.00															
2 inch	50.00															
3 inch	100.00															
October 28, 1976	\$26.00 Annually	\$39.00 Annually	\$300.00/unit	\$450.00/unit												
October 11, 1979	\$40.00 Annually	\$60.00 Annually	\$600.00 per unit	\$900.00 per unit												
December 25, 1980	\$43.80 Annually	\$65.70 Annually	\$600.00 per unit	\$900.00 per unit												
November 25, 1981	\$57.00 Annually	\$84.50 Annually	\$1,800 per unit	\$2,700 per unit												
March 11, 1982	\$57.00 Annually	\$85.50 Annually	\$705.00 per unit	\$1,057 per unit												
December 29, 1982	\$73.82 Annually	\$72.66 Annually	\$1,125.00 per unit	\$1,350 per unit												
March 21, 1989	\$77.58 Annually	\$77.58 Annually	\$1,125 per unit	\$1,350 per unit												
August 1, 1989	\$77.50 Annually	\$76.30 Annually	\$1,125 per unit	\$1,350 per unit												
March 4, 1997	\$80.83 Annually	\$78.40 Annually	\$1,125 per unit	\$1,350 per unit												

City Sewer Rate History (2 of 3)

March 5, 2002	\$92.83 Annually \$85.46 Annually within a Sanitation District	\$85.46 Annually	\$1,125.00 per unit	\$1,350 per unit
December 17, 2002	\$117.02 Annually \$101.69 Annually within a Sanitation District	\$101.69 Annually	\$1,125 per unit	\$1,350 per unit
November 4, 2003	\$139.25 Annually \$114.91 Annually within a Sanitation District	\$114.91 Annually	\$1,125 per unit	\$1,350 per unit
April 19, 2005	\$165.71 Annually \$128.70 Annually within a Sanitation District	\$128.70 Annually	\$1,125 per unit	\$1,350 per unit
April 4, 2006	\$184.13 Annually \$141.57 Annually within a Sanitation District	\$141.57 Annually	\$1,342 per unit	\$1,610 per unit
April 21, 2007 August 21, 2007	\$197.73 Annually \$150.06 Annually within a Sanitation District	\$150.06 Annually	\$2,500 per unit	\$2,828 per unit
April 15, 2008	\$197.73 Annually \$150.06 Annually within a Sanitation District	\$180.07 Annually	\$5,000 per unit	\$5,656 per unit
February 3, 2009	\$209.59 Annually \$159.06 Annually within a Sanitation District	\$190.87 Annually	\$5,000 per unit	\$5,656 per unit

City Sewer Rate History (3 of 3)

October 20, 2009	\$228.45 Annually \$173.38 Annually within a Sanitation District	\$208.05 Annually	\$5,000 per unit	\$5,656 per unit
October 18, 2011	\$233.02 Annually \$176.85 Annually within a Sanitation District	\$212.21 Annually	\$5,000 per unit	\$5,656 per unit
October 16, 2012	\$238.85 Annually \$181.27 Annually within a Sanitation District	\$217.52 Annually	\$5,000 per unit	\$5,656 per unit
October 15, 2013	\$243.63 Annually \$184.90 Annually within a Sanitation District	\$221.87 Annually	\$5,000 per unit	\$5,656 per unit
March 17, 2015	\$248.50 Annually \$188.60 Annually within a Sanitation District	\$226.31 Annually	\$5,000 per unit	\$5,656 per unit
November 5, 2015	\$253.47 Annually \$192.37 Annually within a Sanitation District	\$230.84 Annually	\$5,000 per unit	\$5,656 per unit
November 3, 2016	\$258.54 Annually \$196.22 Annually within a Sanitation District	\$235.46 Annually	\$5,000 per unit	\$5,656 per unit
October 17, 2017	\$258.54 Annually \$196.22 Annually within a Sanitation District	\$235.46 Annually	\$5,000 per unit	\$5,656 per unit

Long Term Strategic Planning

- Long term utility planning combines financial forecasting with asset management.
- Asset Management:
 - Evaluates existing system conditions
 - Asset portfolio
 - Maintenance demands
 - Infrastructure repair & replacement
 - Risk profile
 - Goal: Reduce risk & optimize cost
- Littleton is working to build an asset management platform.



Operational Challenges

- Aging equipment
- Labor
 - staffing to reach the desired Level of Service
 - wages are not competitive in the marketplace
- CIRSA and industry recommendations for maintenance frequency
- Currently we are very **reactive**, goal is to become more **proactive**



Benefits of Asset Management

- Prolonging asset life and improving decisions about asset rehabilitation, repair, and replacement
- Meeting consumer demands with a focus on system sustainability
- Setting rates based on sound operational and financial planning
- Budgeting focused on critical activities for sustained performance
- Meeting service expectations and regulatory requirements
- Improving responses to emergencies
- Improving the security and safety of assets
- Reducing overall costs for both operations and capital expenditures





Current 5-Year Financial Model (Collections & Treatment)

City of Littleton
2017 - 2023 Sewer Analysis
FOR DISCUSSION PURPOSES ONLY
BIOGAS Project Cash Funded

7/3/2018 15:43

		BIOGAS Project Cash Funded Collection and Treatment						
		ACTUAL 2017	ESTIMATED 2018	PROJECTED 2019	PROJECTED 2020	PROJECTED 2021	PROJECTED 2022	PROJECTED 2023
Revenues	Proposed rate increase =	2.0%	0.0%	1.0%	1.5%	1.5%	1.5%	0.0%
Total Revenues		\$15,481,873	\$15,811,749	\$15,908,141	\$15,738,561	\$15,997,051	\$16,225,953	\$16,249,519
Expenditures								
Operating:								
Total Operating Expenditures		\$8,549,963	\$11,710,180	\$10,380,920	\$10,698,550	\$10,976,743	\$10,815,357	\$11,165,283
Total Debt Service		\$3,550,805	\$3,552,380	\$3,555,160	\$3,555,680	\$3,553,710	\$3,558,140	\$3,552,660
Capital Projects - City - Collection		\$217,561	\$200,000	\$250,000	\$300,000	\$350,000	\$400,000	\$450,000
Capital Projects - Biogas - Treatment		0	4,000,000	0	0	0	0	0
Capital Projects - Bi-City - Treatment		1,053,036	1,550,000	960,000	4,110,000	8,400,000	8,400,000	1,500,000
Total Capital Projects		\$1,270,597	\$5,750,000	\$1,210,000	\$4,410,000	\$8,750,000	\$8,800,000	\$1,950,000
Total Expenditures		\$13,371,365	\$21,012,560	\$15,146,080	\$18,664,230	\$23,280,453	\$23,173,497	\$16,667,943
Beginning Cash Balance		\$26,872,773	\$28,983,281	\$23,782,470	\$24,544,531	\$21,618,862	\$14,335,460	\$7,387,916
Ending Cash Balance*		\$28,983,281	\$23,782,470	\$24,544,531	\$21,618,862	\$14,335,460	\$7,387,916	\$6,969,492
Less: operating reserve (17%)		(1,453,494)	(1,990,731)	(1,764,756)	(1,818,754)	(1,866,046)	(1,838,611)	(1,898,098)
Net Ending Cash Balance		\$27,529,787	\$21,791,739	\$22,779,775	\$19,800,108	\$12,469,414	\$5,549,305	\$5,071,394
Debt Coverage (must be 1.10 or higher per bond covenant)		1.95	1.15	1.55	1.42	1.41	1.52	1.43

Notes:

The Plant Master Plan was updated in 2017 and includes Capital Projects.
Per bond requirements, the City must maintain a \$3 million cash balance for rate stabilization purposes.
Cash has been reduced by \$1,210,000 as this is on deposit with City of Englewood per the treatment plant operating agreement.
Cash basis accounting is used for projection purposes.



Current 5-Year Financial Model (Treatment)

City of Littleton
2017 - 2023 Sewer Analysis
FOR DISCUSSION PURPOSES ONLY

7/3/2018 15:43

	BIOGAS Project Cash Funded Collection Only						
	ACTUAL 2017	ESTIMATED 2018	PROJECTED 2019	PROJECTED 2020	PROJECTED 2021	PROJECTED 2022	PROJECTED 2023
Revenues							
Total Revenues	\$877,742	\$926,599	\$964,022	\$982,871	\$1,000,248	\$1,015,807	\$1,017,650
Expenditures							
Operating:							
Total Operating Expenditures	\$903,309	\$2,794,551	\$1,631,885	\$1,691,180	\$1,748,705	\$1,813,470	\$1,881,200
Total Debt Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Capital Projects	\$217,561	\$200,000	\$250,000	\$300,000	\$350,000	\$400,000	\$450,000
Total Expenditures	\$1,120,870	\$2,994,551	\$1,881,885	\$1,991,180	\$2,098,705	\$2,213,470	\$2,331,200
Total Net Surplus/(Deficit) Collection	(\$243,128)	(\$2,067,952)	(\$917,863)	(\$1,008,309)	(\$1,098,457)	(\$1,197,663)	(\$1,313,550)

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Current 5-Year Financial Model (Collections)

City of Littleton
2017 - 2023 Sewer Analysis
FOR DISCUSSION PURPOSES ONLY

7/3/2018 15:43

	BIOGAS Project Cash Funded Treatment Only						
	ACTUAL 2017	ESTIMATED 2018	PROJECTED 2019	PROJECTED 2020	PROJECTED 2021	PROJECTED 2022	PROJECTED 2023
Revenues							
Total Revenues	\$14,604,131	\$14,885,150	\$14,944,119	\$14,755,690	\$14,996,803	\$15,210,146	\$15,231,869
Expenditures							
Operating:							
Total Operating Expenditures	\$7,646,654	\$8,915,629	\$8,749,035	\$9,007,370	\$9,228,038	\$9,001,887	\$9,284,083
Total Debt Service	\$3,550,805	\$3,552,380	\$3,555,160	\$3,555,680	\$3,553,710	\$3,558,140	\$3,552,660
Total Capital Projects	\$1,053,036	\$5,550,000	\$960,000	\$4,110,000	\$8,400,000	\$8,400,000	\$1,500,000
Total Expenditures	\$12,250,495	\$18,018,009	\$13,264,195	\$16,673,050	\$21,181,748	\$20,960,027	\$14,336,743
Total Net Surplus/(Deficit) Collection	\$2,353,636	(\$3,132,859)	\$1,679,924	(\$1,917,360)	(\$6,184,944)	(\$5,749,882)	\$895,126

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2018/2019 Plans

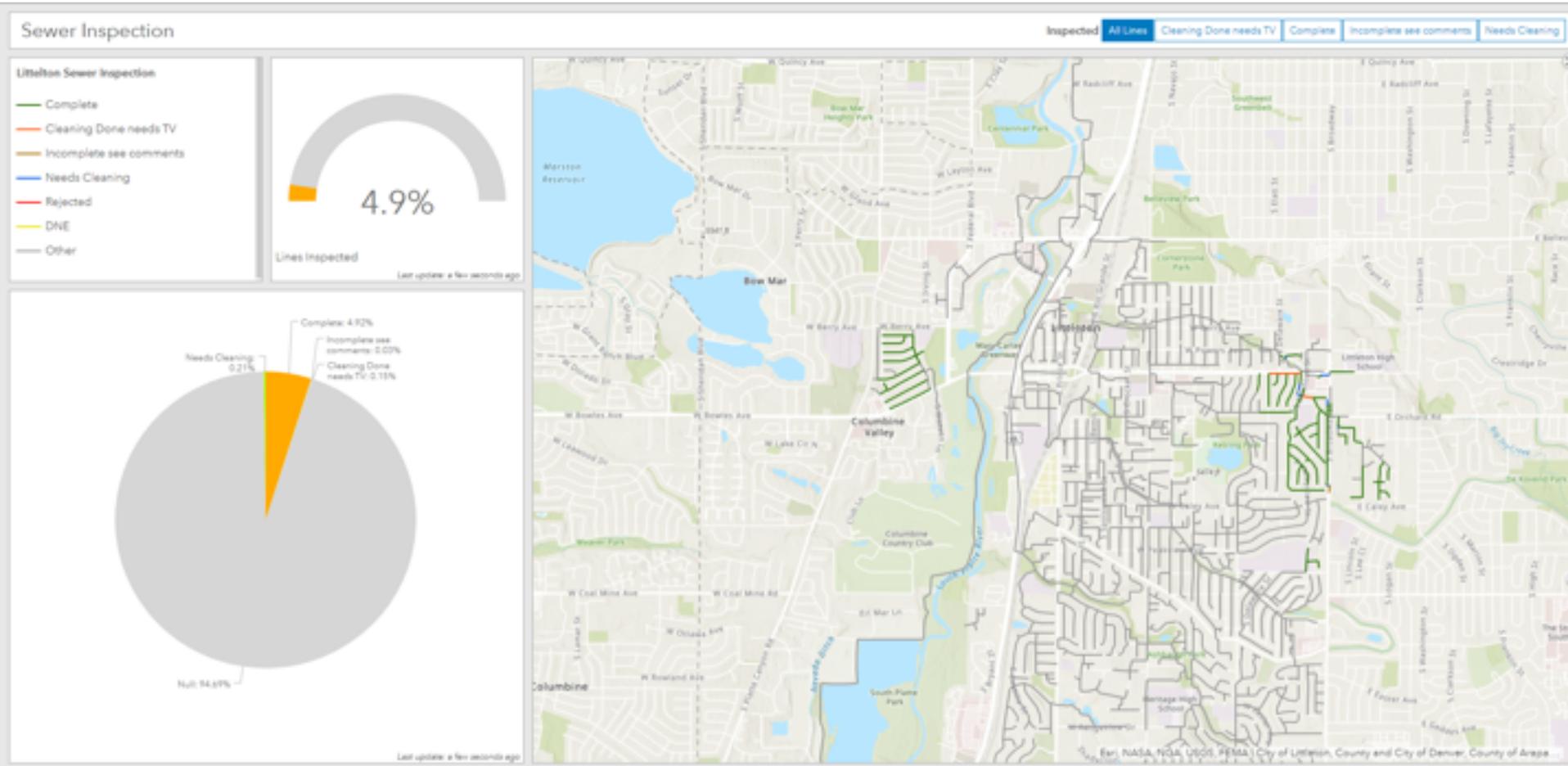
- Camera analysis of total system
 - Data collection on existing system
 - Assess
 - system capacity & condition
 - evaluate risk profiles
 - Total cost \$1,775,000
 - (From Collections Cash Funds)
 - Timeline 6 months
 - 8 field crews (6 doing lines, 2 doing manholes)
 - 5% completed
 - 3 imminent failure locations identified
 - Dozen+ system blockages



2018/2019 Plans

- RFP for asset management platform (*Software*)
 - *Complete and will be issued by July 31*
- Develop 20-year infrastructure needs model
- Develop asset maintenance support and replacement plan
- Rate study for the system based on data
 - Start in mid-2019
 - Complete January 2020

CCTV Project



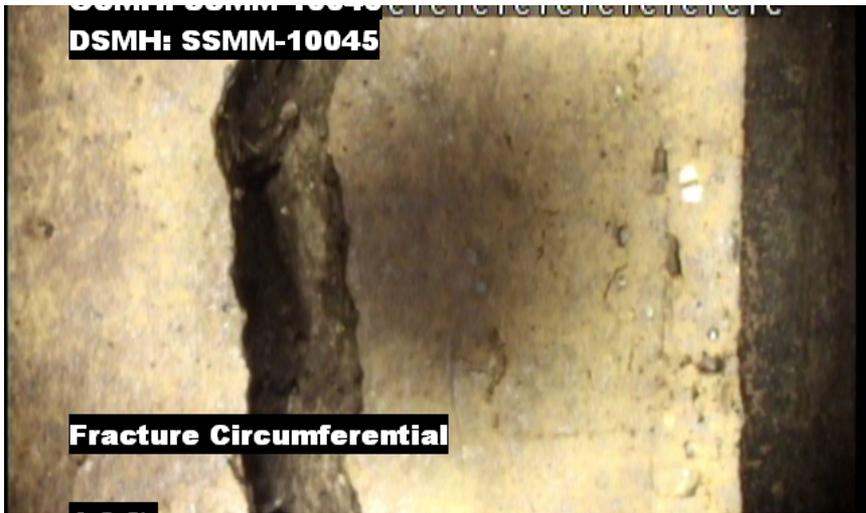
<http://littleton.maps.arcgis.com/apps/opsdashboard/index.html#/c3a9b387816b487eb85df2b4fff1208c>

IMAGES



IMAGES





DSMH: SSMM-10045

Roots Fine Joint



DSMH: SSMM-10058

**Access Point Manhole
SSMM-10057**





**SOUTH PLATTE
WATER RENEWAL
PARTNERS**

OWNED BY LITTLETON/ENGLEWOOD

BIOGAS PROJECT STATUS

IMPLEMENTATION APPROVALS



Interconnection Agreement



Construction Manager / General Contractor



Renewable Fuel Credit Management Services



Engineering Services During Construction



SCHEDULE AND BUDGET OUTLOOK



ID	WBS	Task Name	Duration	Start	Finish
1	1	Approved IE Dates	22 days	Thu 7/5/18	Mon 8/6/18
2	1.1	Supervisor Meeting	0 days	Thu 7/5/18	Thu 7/5/18
3	1.2	Joint Council Presentation	0 days	Thu 7/19/18	Thu 7/19/18
4	1.3	Final Council Presentation	0 days	Mon 8/6/18	Mon 8/6/18
5	2	Rin Broker Contract	133 days	Thu 2/1/18	Mon 8/6/18
14	3	Xcel Interconnection Agreement	133 days	Thu 2/1/18	Mon 8/6/18
20	4	Xcel Easement	70 days	Tue 8/21/18	Mon 11/26/18
21	4.1	Survey	20 days	Tue 8/21/18	Mon 9/17/18
22	4.2	Memo to Legal	5 days	Tue 9/18/18	Mon 9/24/18
23	4.3	Legal Review	15 days	Tue 9/25/18	Mon 10/15/18
24	4.4	Englewood Council	30 days	Tue 10/16/18	Mon 11/26/18
25	4.5	Littleton Council	30 days	Tue 10/16/18	Mon 11/26/18
26	5	Carollo design contract	95 days	Thu 2/1/18	Wed 6/13/18
32	6	Carollo Construction Services Agreement	13 days	Thu 5/10/18	Mon 5/28/18
35	7	Equipment and Construction Procurement	133 days?	Thu 2/1/18	Mon 8/6/18
47	8	Construction	240 days	Tue 8/7/18	Mon 7/8/19
48	8.1	Construction	180 days	Tue 8/7/18	Mon 4/15/19
49	8.2	Equipment Procurement and Delivery	240 days	Tue 8/7/18	Mon 7/8/19
50	8.2.1	Equipment Procurement (shop drawings)	30 days	Tue 8/7/18	Mon 9/17/18
51	8.2.2	Equipment fabrication and delivery	150 days	Tue 9/18/18	Mon 4/15/19
52	8.2.3	Equipment installation	40 days	Tue 4/16/19	Mon 6/10/19
53	8.2.4	Startup and Training	20 days	Tue 6/11/19	Mon 7/8/19
54	8.3	Xcel Contract	200 days	Tue 8/7/18	Mon 5/13/19
57	9	Procurement Steps	48 days?	Thu 5/31/18	Mon 8/6/18
86	10	LEWWTP RNG Schedule draft	0 days	Thu 2/1/18	Thu 2/1/18

2018 Approved Budget
\$8.0 Million

Current Construction Budget

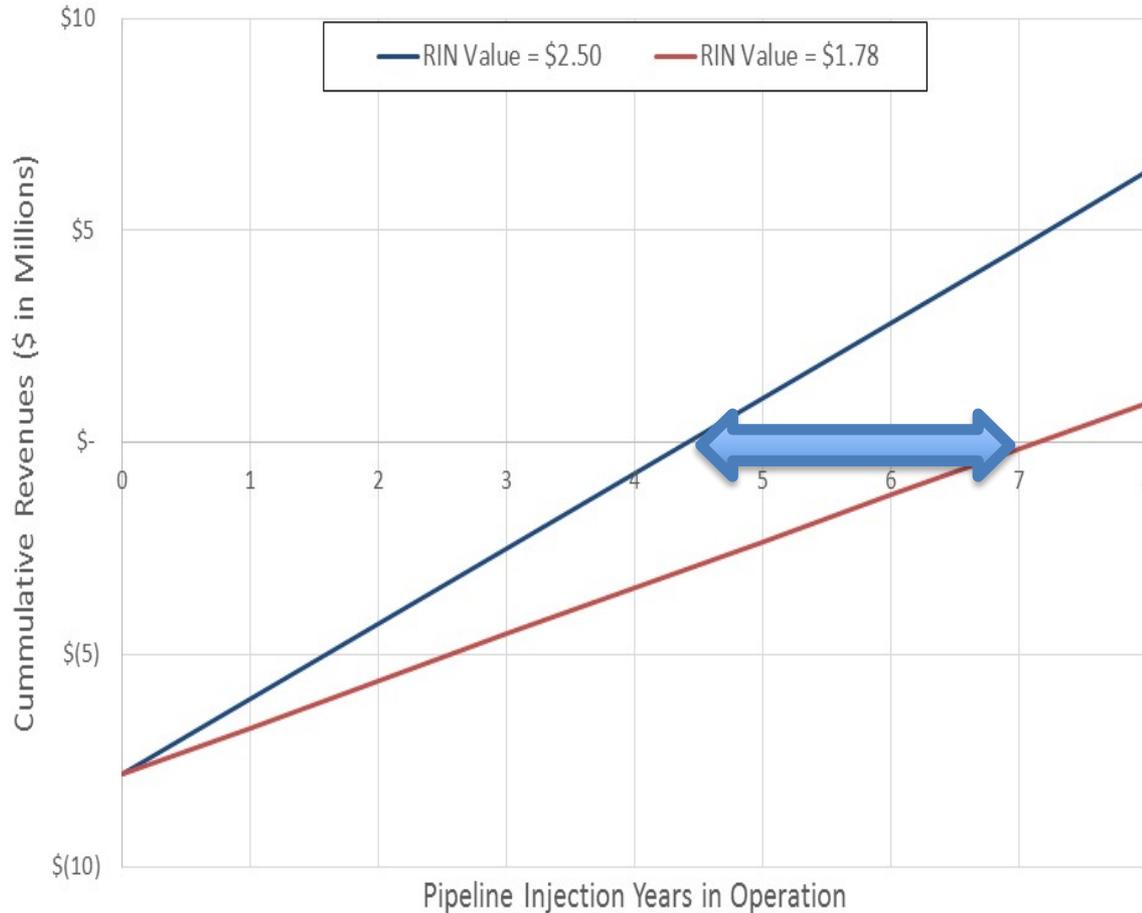
- Construction = \$5,125,000
 - Engineering Support = \$ 310,000
 - Xcel Interconnection = \$1,800,000
 - Other Costs* = \$ 150,000
- TOTAL = \$ 7,385,000**

* Other costs include easements, and City owned contingencies.

Major Project Milestones Pending Approval:

- Notice to Proceed – Aug 7, 2018
- Substantial Completion – Jul 30, 2019
- Final Completion – Sep 1, 2019

Cash Flow Forecast Based on RIN Sensitivity



Financial Assumptions

(in 2019 Dollars)

Revenues:

- CNG sold = \$196,000
- RIN Revenue (range) =
 - \$2,300,000
 - \$1,640,000

Expenses:

- Natural Gas = \$130,000
- O&M Costs = \$560,000
- Insurance = \$175,000

- RIN Value = \$2.50 at time of completing feasibility study (Oct-2017)
- Three year annual average RIN value = \$1.78 (2014 – 2017)

Moving Forward

- Joint annual South Platte Water Renewal Partners meeting
 - Littleton/Englewood
 - July 19th
- Asset management update January 2019
- Rate study 2019/2020

Questions

