



TriCo Regional Sewer Utility

www.TriCo.eco Phone (317) 844-9200 Fax (317) 844-9203

JOINT CAPITAL & CONSTRUCTION and BUDGET & FINANCE COMMITTEE MEETING

Wednesday, September 5, 2018 at 5:30 P.M.
10701 N. College Ave, Suite A, Indianapolis, IN 46280

AGENDA

1. Public Comment
2. Financial Statements and Investments
3. Dedications
 - a. Jacksons Grant on Williams Creek Section 2
 - b. Home Place Gardens
 - c. Children's Theraplay
4. WWTP Oxidation Ditch Gear Reducer Replacements
5. Vehicle Replacements
6. #1801 Lift Station 4 Elimination
7. St. Mary & St. Mark Sewer Extension
8. #1902 WWTP Expansion
9. Other Business
10. Capital Project Updates
 - a. #1702 – Keystone/96th Sewer & Force Main Relocation
 - b. #1705 – 99th Street Sewer Extension & Lift Station 6 Elimination
 - c. #1801 – Lift Station 4 Elimination
 - d. #1901 – Lift Station 14 Parallel Force Main
 - e. #1902 – WWTP Expansion
 - f. #1906 – Eagle Creek Outfall Sewer Expansion
 - g. Jackson's Grant Section 6 Oversized Sewers
 - h. Haver Way Lift Station & Private Sewers

Next Scheduled Meeting: Monday, October 1, 2018 at 4:30 pm

Clay Township Regional Waste District
Budget & Finance Committee - Analysis of July 2018
August 16, 2018

Income Statements

<u>Category</u>	<u>Actual</u>	<u>Budget</u>	<u>Variance</u> <u>(unfavorable)</u>	<u>Above /</u> <u>-Under</u> <u>Budget</u>	<u>Explanation</u>
Residential	389,780	392,306	(2,526)	-0.64%	Under Budget
Commercial	243,551	225,889	17,663	7.82%	Over Budget
Other Revenue	14,300	14,042	258	1.84%	Over budget
Other Income	11,345	5,336	6,008	113%	Over budget
Total Revenue	658,976	637,572	21,404	3.36%	Over Budget

Residential sales were below projections by less than 1% and Commercial was above budget in July for a total of \$229,443. Commercial is above projections again in July by \$17,663.

July: Total Sales of \$658,976 were \$21,404 (3.36%) above projected revenue of \$637,572. Total revenue is up over \$17,000 from June.

July Spending Analysis

Wages & benefits in July were \$172,586 which is under budget by \$211.

Administration spending in July was \$60,922 which is \$3,247 over budget (5.63%).

Treatment costs in July were \$167,167 which is \$25,667 over budget (17%)

Collection costs were \$77,795 in July which was \$7,795 over budget (11%)

Total Operating expenses in July were \$478,471 which is \$35,499 over budget (8%)

<u>Category</u>	<u>Actual</u>	<u>Budget</u>	<u>Variance</u> <u>(unfavorable)</u>	<u>Above /</u> <u>-Under</u> <u>Budget</u>	<u>Explanation</u>
			-		
Computer consultants	27,012	12,500	(14,512)	116.10%	Over budget
Customer Service & Outreach	3,989	2,083	(1,906)	91.48%	Over budget- new TriCo items
Sewer Sampling	7,704	3,333	(4,371)	131.13%	Over Budget
Plant R & M	33,379	12,500	(20,879)	167.03%	Over budget - Ace Technologies
Operating Supplies-Plant	3,666	1,250	(2,416)	193.28%	Over Budget
Lift Station R & M	32,798	7,917	(24,881)	314.28%	Over budget - Ace Technologies
Line Repairs	25,528	10,000	(15,528)	155.28%	Over budget
Utilities LS	19,576	16,000	(3,576)	22.35%	Over budget
			-		
Total Operating Expenses	478,471	442,972	(35,499)	8.01%	Over budget
Net Income (loss) net of depreciation	130,487	168,308	(37,821)	-22.47%	Under projections for July

Ace Technologies invoices lead to the majority of the budget overage in Treatment and Collections.

Cash Generated

Cash generated for July shows a net decrease in all funds by \$374,750. Capital spending was \$497,866 which included spending for 96th/Keystone, LS 4 Elimination, LS 14 Parallel Forcemain extension, and neighborhood sewer projects.

Individual fund balances and changes are below and on the Cash Generated Statements included with the monthly financial statements.

	July	June	+/- from last month
Operating	\$ 1,053,079	\$ 1,447,636	\$ (394,557)
Interceptor	\$ (72,253)	\$ (60,191)	\$ (12,062)
Plant Expansion	\$ 4,262,570	\$ 4,230,701	\$ 31,869
Operating Reserve	\$ 2,192,400	\$ 2,192,400	\$ -
Reserve for Replacement	\$ 321,258	\$ 321,258	\$ -
Total	\$ 7,757,054	\$ 8,131,804	\$ (374,750)

YTD cash balances have increased \$982,781

Investments

There were no investment changes in July. The District invested \$2,000,000 in July 2015 in a 5 year CD earning 2.05%.

TriCo Regional Sewer Utility

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Income Statement

July 2018

		Actual MTD thru 07/31/2018	Budget MTD thru 07/31/2018	Variance		Actual YTD thru 12/31/2018	Budget YTD thru 12/31/2018	Variance	
Sales									
Residential									
4001-1	Sales - Residential	389,780.32	392,305.92	(2,525.60)	99.36 %	2,707,896.18	4,707,671.00	(2,707,796.82)	57.52 %
Residential		389,780.32	392,305.92	(2,525.60)	99.36 %	2,707,896.18	4,707,671.00	(2,707,796.82)	57.52 %
Commercial									
4003-1	Sales - Commercial	243,551.16	225,888.50	17,662.66	107.82 %	1,373,982.97	2,710,662.00	(1,373,875.15)	50.69 %
Commercial		243,551.16	225,888.50	17,662.66	107.82 %	1,373,982.97	2,710,662.00	(1,373,875.15)	50.69 %
Other Revenue									
4005-1	Late Charges	6,059.90	7,000.00	(940.10)	86.57 %	50,965.80	84,000.00	(50,879.23)	60.67 %
4007-1	Applications Fees	6,280.50	5,625.00	655.50	111.65 %	47,392.50	67,500.00	(47,280.85)	70.21 %
4009-1	Plan Reviews, Inspections, Misc. Revenue	1,960.00	1,416.67	543.33	138.35 %	9,682.50	17,000.00	(9,544.15)	56.96 %
Other Revenue		14,300.40	14,041.67	258.73	101.84 %	108,040.80	168,500.00	(107,938.96)	64.12 %
Total Sales		647,631.88	632,236.09	15,395.79	102.44 %	4,189,919.95	7,586,833.00	(4,189,817.51)	55.23 %
Other Income									
4501-1	Interest - Investments	3,483.00	4,583.33	(1,100.33)	75.99 %	23,814.00	55,000.00	(23,738.01)	43.30 %
4503-1	Interest - Banking	7,636.46	0.00	7,636.46	0.00 %	49,272.50	0.00	(49,272.50)	0.00 %
4507-1	Bank Fees	(20.00)	(41.67)	21.67	48.00 %	(172.00)	(500.00)	220.00	34.40 %
4601-1	Interest - by project	241.51	361.17	(119.66)	66.87 %	1,741.18	4,334.00	(1,674.31)	40.17 %
4701-1	Customer Fees & Reimbursements	0.00	16.67	(16.67)	0.00 %	0.00	200.00	0.00	0.00 %
4901-1	Misc Income/Expense	3.63	416.67	(413.04)	0.87 %	(403.42)	5,000.00	404.29	(8.07)%
Other Income		11,344.60	5,336.17	6,008.43	212.60 %	74,252.26	64,034.00	(74,039.66)	115.96 %
Total Revenue		658,976.48	637,572.26	21,404.22	103.36 %	4,264,172.21	7,650,867.00	(4,264,068.85)	55.73 %
Operating Expenses									
Wages & Benefits									
5001-1	Gross Wages	122,594.25	120,833.33	(1,760.92)	101.46 %	897,047.56	1,450,000.00	896,946.10	61.87 %
5003-1	Other Employee Exp	658.06	833.33	175.27	78.97 %	8,240.41	10,000.00	8,161.44	82.40 %
5005-1	Retirement Plan - Hoosier START	11,847.76	11,958.33	110.57	99.08 %	87,858.57	143,500.00	87,759.49	61.23 %
5007-1	Employee Insurance	29,050.12	30,470.25	1,420.13	95.34 %	205,192.15	365,643.00	205,096.81	56.12 %

TriCo Regional Sewer Utility

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Income Statement

July 2018

		Actual MTD thru 07/31/2018	Budget MTD thru 07/31/2018	Variance		Actual YTD thru 12/31/2018	Budget YTD thru 12/31/2018	Variance	
5009-1	Taxes (Employer FICA)	8,436.27	8,701.92	265.65	96.95 %	63,274.30	104,423.00	63,177.35	60.59 %
Wages & Benefits		172,586.46	172,797.16	210.70	99.88 %	1,261,612.99	2,073,566.00	1,261,513.11	60.84 %
Administration									
5101-1	Clay Township Govt Center Operations	3,167.19	4,333.33	1,166.14	73.09 %	30,330.27	52,000.00	30,257.18	58.33 %
5103-1	Professional Education	205.00	1,333.33	1,128.33	15.38 %	12,210.87	16,000.00	12,195.50	76.32 %
5105-1	Boardmember Fees	700.00	1,500.00	800.00	46.67 %	11,100.00	18,000.00	11,053.33	61.67 %
5107-1	Board Expense	92.80	125.00	32.20	74.24 %	454.28	1,500.00	380.04	30.29 %
5109-1	Consulting	0.00	4,166.67	4,166.67	0.00 %	1,288.75	50,000.00	1,288.75	2.58 %
5111-1	Computer Expenses/Consultants	27,012.03	12,500.00	(14,512.03)	216.10 %	126,089.45	150,000.00	125,873.35	84.06 %
5113-1	Insurance	8,598.44	8,333.33	(265.11)	103.18 %	62,979.95	100,000.00	62,876.77	62.98 %
5115-1	Accounting Fees	0.00	1,250.00	1,250.00	0.00 %	0.00	15,000.00	0.00	0.00 %
5117-1	Legal Fees	2,377.00	3,333.33	956.33	71.31 %	17,722.00	40,000.00	17,650.69	44.31 %
5119-1	Engineering Fees	360.00	3,333.33	2,973.33	10.80 %	10,053.08	40,000.00	10,042.28	25.13 %
5121-1	Special Engineering (I & I)	0.00	0.00	0.00	0.00 %	104.80	0.00	104.80	0.00 %
5125-1	Professional Affiliations	380.57	150.00	(230.57)	253.71 %	2,620.48	4,500.00	2,366.77	58.23 %
5127-1	Travel & Mileage	212.45	666.67	454.22	31.87 %	2,648.29	8,000.00	2,616.42	33.10 %
5129-1	Collection	68.67	66.67	(2.00)	103.00 %	4,314.13	800.00	4,211.13	539.27 %
5131-1	Billing Service Contracts	4,359.79	7,333.33	2,973.54	59.45 %	41,880.05	88,000.00	41,820.60	47.59 %
5133-1	Bad Debt Expense	122.35	416.67	294.32	29.36 %	(296.73)	5,000.00	(326.09)	(5.93)%
5135-1	Office Expense	1,445.29	500.00	(945.29)	289.06 %	4,999.00	6,000.00	4,709.94	83.32 %
5137-1	Postage Expense	4,932.28	3,333.33	(1,598.95)	147.97 %	36,703.33	40,000.00	36,555.36	91.76 %
5139-1	Office Services	2,899.32	2,916.67	17.35	99.41 %	21,851.42	35,000.00	21,752.01	62.43 %
5141-1	Customer Outreach & Education	3,989.15	2,083.33	(1,905.82)	191.48 %	9,745.30	25,000.00	9,553.82	38.98 %
Administration		60,922.33	57,674.99	(3,247.34)	105.63 %	396,798.72	694,800.00	396,693.09	57.11 %
Treatment									
5201-1	Sewage Treatment - Carmel WWTP	81,297.18	91,666.67	10,369.49	88.69 %	606,731.13	1,100,000.00	606,642.44	55.16 %
5203-1	Sewer Sampling & Lab	7,703.56	3,333.33	(4,370.23)	231.11 %	36,645.30	40,000.00	36,414.19	91.61 %
5205-1	Biosolids Disposal	15,394.90	12,500.00	(2,894.90)	123.16 %	99,002.84	150,000.00	98,879.68	66.00 %
5207-1	Plant R & M	33,378.64	12,500.00	(20,878.64)	267.03 %	165,719.01	150,000.00	165,451.98	110.48 %

TriCo Regional Sewer Utility

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Income Statement

July 2018

		Actual MTD thru 07/31/2018	Budget MTD thru 07/31/2018	Variance		Actual YTD thru 12/31/2018	Budget YTD thru 12/31/2018	Variance	
5209-1	Utilities - Plant	24,535.89	20,000.00	(4,535.89)	122.68 %	167,643.31	240,000.00	167,520.63	69.85 %
5211-1	Operating Supplies - Plant	3,666.00	1,250.00	(2,416.00)	293.28 %	11,007.53	15,000.00	10,714.25	73.38 %
5213-1	Safety Materials & Training	1,190.94	1,250.00	59.06	95.28 %	4,344.76	15,000.00	4,249.48	28.97 %
5215-1	Permits	0.00	0.00	0.00	0.00 %	10,270.00	12,000.00	10,270.00	85.58 %
Treatment		167,167.11	142,500.00	(24,667.11)	117.31 %	1,101,363.88	1,722,000.00	1,101,246.57	63.96 %
Collection System									
5301-1	Lift Station R & M	32,798.40	7,916.67	(24,881.73)	414.30 %	87,641.93	95,000.00	87,227.63	92.25 %
5302-1	Lift Station Repair - Michigan Rd	1,651.00	0.00	(1,651.00)	0.00 %	1,651.00	0.00	1,651.00	0.00 %
5303-1	Line Maintenance	(3,810.75)	10,000.00	13,810.75	(38.11)%	43,824.12	65,000.00	43,862.23	67.42 %
5305-1	Line Repair	25,527.77	10,000.00	(15,527.77)	255.28 %	20,018.41	50,000.00	19,763.13	40.04 %
5307-1	Equipment Repair	428.65	2,000.00	1,571.35	21.43 %	10,805.97	20,000.00	10,784.54	54.03 %
5309-1	Special R & M (I&I)	0.00	0.00	0.00	0.00 %	20.84	0.00	20.84	0.00 %
5313-1	Vehicle R & M	469.69	833.33	363.64	56.36 %	2,761.52	10,000.00	2,705.16	27.62 %
5315-1	Fuel	(364.81)	1,583.33	1,948.14	(23.04)%	11,233.27	19,000.00	11,256.31	59.12 %
5317-1	Utilities - Lift Stations	19,575.72	16,000.00	(3,575.72)	122.35 %	101,985.36	200,000.00	101,863.01	50.99 %
5319-1	Operating Supplies - Collection System	28.15	0.00	(28.15)	0.00 %	8,545.07	60,000.00	8,545.07	14.24 %
5321-1	Manhole R&M	1,255.00	10,000.00	8,745.00	12.55 %	17,107.06	66,000.00	17,094.51	25.92 %
5322-1	Televising	0.00	11,000.00	11,000.00	0.00 %	0.00	45,000.00	0.00	0.00 %
5323-1	Uniforms & Shop Towels	236.07	666.67	430.60	35.41 %	5,949.76	8,000.00	5,914.35	74.37 %
Collection System		77,794.89	70,000.00	(7,794.89)	111.14 %	311,544.31	638,000.00	311,433.17	48.83 %
Total Operating Expenses									
		478,470.79	442,972.15	(35,498.64)	108.01 %	3,071,319.90	5,128,366.00	3,071,211.89	59.89 %
Depreciation									
5901-1	Depreciation	324,586.36	307,314.08	(17,272.28)	105.62 %	2,272,114.41	3,687,769.00	2,272,008.79	61.61 %
Depreciation		324,586.36	307,314.08	(17,272.28)	105.62 %	2,272,114.41	3,687,769.00	2,272,008.79	61.61 %
Amortization									
5911-1	Amortization of CIAC	(274,568.00)	(281,022.00)	(6,454.00)	97.70 %	(1,921,976.00)	(3,372,264.00)	(1,922,073.70)	56.99 %
Amortization		(274,568.00)	(281,022.00)	(6,454.00)	97.70 %	(1,921,976.00)	(3,372,264.00)	(1,922,073.70)	56.99 %

TriCo Regional Sewer Utility

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Income Statement

July 2018

	Actual MTD thru 07/31/2018	Budget MTD thru 07/31/2018	Variance		Actual YTD thru 12/31/2018	Budget YTD thru 12/31/2018	Variance	
Total Expenses	528,489.15	469,264.23	(59,224.92)	112.62 %	3,421,458.31	5,443,871.00	3,421,345.69	62.85 %
NET SURPLUS/(DEFICIT)	130,487.33	168,308.03	(37,820.70)	77.53 %	842,713.90	2,206,996.00	(842,636.37)	38.18 %

TriCo Regional Sewer Utility

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Balance Sheet

July 2018

	Actual as of 07/31/2018	Actual as of 07/31/2017	% of Prior Year
ASSETS			
Utility Plant	114,615,367.65	112,427,003.24	101.95 %
Current Assets			
Cash & Investments			
Cash & Investments - Operating Fund	1,053,078.86	1,671,083.78	63.02 %
Cash & Investments - Operating Reserve	2,192,400.00	2,192,400.00	100.00 %
Cash & Investments - Reserve for Replacement	321,257.56	341,397.56	94.10 %
Cash & Investments - Interceptor Fund	(72,252.58)	100,740.57	(71.72)%
Cash & Investments - Plant Expansion Fund	4,262,570.03	3,388,806.83	125.78 %
Total Cash & Investments	7,757,053.87	7,694,428.74	100.81 %
Accounts Receivable	701,236.80	663,787.40	105.64 %
Liens Receivable	12,290.08	7,159.65	171.66 %
Invoiced Receivables	93,847.10	149,284.09	62.86 %
Notes & Interest Receivable	47,888.89	65,823.81	72.75 %
Investment Interest Receivable	124,910.00	83,910.00	148.86 %
Other Current Assets	357,209.30	309,305.98	115.49 %
Current Assets	9,094,436.04	8,973,699.67	101.35 %
TOTAL ASSETS	123,709,803.69	121,400,702.91	101.90 %
TOTAL LIABILITIES & EQUITY			
LIABILITIES			
Current Liabilities			
Invoiced Payables	89,508.05	108,299.05	82.65 %
Accounts Payable	(427.96)	699.00	(61.22)%
Accrued Paid Leave	87,263.08	79,443.01	109.84 %
Other Current Liabilities	54,865.98	41,681.15	131.63 %
Total Current Liabilities	231,209.15	230,122.21	100.47 %
TOTAL LIABILITIES	231,209.15	230,122.21	100.47 %
EQUITY			
Retained Earnings	24,855,962.30	22,883,131.35	108.62 %
Construction in Aid	98,622,632.24	98,287,449.35	100.34 %
TOTAL EQUITY	123,478,594.54	121,170,580.70	101.90 %
Total	123,709,803.69	121,400,702.91	101.90 %

2018 Capital Budget

Location	Project No.	Project	Funding Source	2017 Projected to Complete	2018	July	YTD Spending	Justification
WWTP Michigan Road Wastewater Treatment Plant								
	1505	Headworks	Operating Fund		\$ -		\$ 86,132	ongoing performance issues with existing equipment
	1701	Post Treatment Improvements	Plant Expansion Fund	\$ 25,000	\$ 250,000		\$ 3,188	Increase outfall capacity needed in 2018
	1902	WWTP Expansion	Plant Expansion Fund		\$ 50,000	\$ 9,945	\$ 19,500	capacity expansion: screen, VLRs, clarifier, UV (need online by 2021 based on current and projected flow growth)
	2502	WWTP Expansion	Plant Expansion Fund				\$ -	capacity expansion: grit removal, VLR, clarifiers, genset (need online by 2027 based on current and projected flow growth)
		WWTP Alternative Power					\$ -	Solar panel installation to reduce electric power consumption
		Annual Plant Improvement & Repair Projects	Operating Fund		\$ 150,000		\$ 10,615	Typical annual expenditures
LS 1 Carmel Creek								
	1606	Basin 1 I&I Removal	Operating Fund	\$ -	\$ 60,000		\$ -	Line repairs remain. Combine with Basin 8 efforts.
	1702	96th/Keystone force main relocation	Operating Fund	\$ 25,000	\$ 250,000	\$ 253,640	\$ 258,570	Relocate LS1 forcemain and southern interceptor for interchange project
	2001	Replace wet weather pumps, generator, wet well piping	Reserve for Replacement Fund				\$ -	Replace equipment at the end of its service life.
		Fence Replacement	Operating Fund		\$ 15,000		\$ 11,448	
LS 2 Meridian Corridor								
	1601	106th Street Parallel Force main (Ditch Road to Michigan Road WWTP)	Interceptor Fund			\$ 3,900	\$ 314,576	Increase capacity - LS 2 & 8 to MRWWTP
	1602	Springmill parallel interceptor	Interceptor Fund			\$ 1,740	\$ 1,960	Relief for existing Springmill Interceptor, service unsewered & undeveloped parcels.
	2401	106th Street Parallel Force main (LS 2 to Ditch Road)	Interceptor Fund				\$ -	Timing is based on when capacity is needed.
LS 3 Northern Heights								
		(no projects)					\$ -	
LS 4 Springmill Ridge								
	1801	Interceptor extension and lift station elimination	Interceptor Fund	\$ 25,000	\$ 300,000	\$ 6,824	\$ 15,424	LS4 pumps are past their useful life. LS is undersized. Proceed with completion of Jackson's Grant Section 6 sewers. This part of the project extends the interceptor across the Book property and eliminates LS4
LS 5 Springmill Streams								
	2601	Interceptor extension & lift station elimination	Interceptor Fund				\$ -	This project can proceed following completion of Jackson's Grant Section 2. Can combine this project with the LS19 elimination project.
LS 6 Waldon Pond								
	1705	Interceptor extension & lift station elimination	Interceptor Fund	\$ -	\$ 900,000		\$ -	Timing is development driven.
LS 7 Laurelwood Sub								
		(no projects)					\$ -	
LS 8 Laurelwood								
	1606	Basin 8 I&I removal	Operating Fund	\$ 10,000	\$ 60,000		\$ -	Manhole rehab & raising, line repairs. Combine with Basin 1 efforts.
	1904	Pump & electrical upgrades + new force main to 106th St	Interceptor Fund		\$ 50,000		\$ 638	Increase wet weather capacity

2018 Capital Budget

Location	Project No.	Project	Funding Source	2017 Projected to Complete	2018	July	YTD Spending	Justification
LS 9	Towne Road	(no projects)					\$ -	
LS 10	Michigan Road						\$ -	
	1903	Pump and controls upgrades	Reserve for Replacement Fund		\$ 50,000		\$ -	Increase wet weather capacity & redundancy.
LS 11	Boone County	(no projects)					\$ -	
LS 12	Kingsmill	(no projects)					\$ -	
LS 14	Austin Oaks						\$ -	
	1901	Parallel force main extension	Interceptor Fund		\$ 50,000	\$ 7,450	\$ 49,950	The lift station is near its wet weather capacity. This project would also allow us to serve a pending service area expansion.
	2002	Generator replacement	Reserve for Replacement Fund				\$ -	Replace equipment at the end of its service life.
	2301	LEC Interceptor extension	Interceptor Fund				\$ -	Extend service to area north of CR300S. Timing is developer driven.
LS 16	Zionsville Presbyterian						\$ -	
	1905	Replacement/relocation	Operating Fund				\$ -	Upsize to buildout capacity & relocate to The Farm development. Timing is development driven.
LS 17	Zion Hills						\$ -	
	2501	Pump & electrical upgrades	Reserve for Replacement Fund				\$ -	Timing is based on when capacity is needed. This project may be needed sooner pending a service area expansion.
LS 18	Train Express						\$ -	
		Pump replacements	Reserve for Replacement Fund				\$ -	Replace pumps at the end of their service life.
LS 19	Village of West Clay						\$ -	
	2601	Interceptor extension & lift station elimination	Interceptor Fund				\$ -	Can proceed following completion of Jackson's Grant Phase 2. Can combine with LS5 elimination project. Timing is development driven.
LS 20	Mayflower Park						\$ -	
		Pump replacement	Reserve for Replacement Fund				\$ -	Replace pumps at the end of their service life.
LS 21	High Grove						\$ -	
	2302	Interceptor extension & lift station elimination	Interceptor Fund				\$ -	Required with future development south of LS 21. Timing is development driven.
LS 22	North Augusta	(no projects)					\$ -	
LS 23	126th Street						\$ -	
	2201	Pump & electrical upgrades	Reserve for Replacement Fund				\$ -	Timing is based on when capacity is needed.
LS 24	Parkwood West	(no projects)					\$ -	
LS 25	Towne Oak Estates	(no projects)					\$ -	
LS 26	Jacksons Grant						\$ -	
	N/A	Jackson's Grant Section 2 sewer oversizing	Interceptor Fund		\$100,000		\$ -	Allows for future elimination of LS 5 & 19. Estimated sewer oversizing cost less interceptor fees credited equals net estimated cost to CTRWD (\$100,000)

2018 Capital Budget

Location	Project No.	Project	Funding Source	2017 Projected to Complete	2018	July	YTD Spending	Justification
	N/A	Jackson's Grant Section 6 sewer oversizing/extension	Interceptor Fund		\$350,000		\$ -	Allows for elimination of LS 4 (see #1801). CTRWD to pay full cost of sewer extension until developer proceeds with Section 6. At that time developer pays fees and reimburses CTRWD for non-oversizing costs (estimated at \$350,000 total)
	2202	LS 26 additional pumps & parallel force main extension	Interceptor Fund				\$ -	Timing is based on when capacity is needed in Springmill Interceptor and LS 26. Must be complete before elimination of LS 5 & 19.
General collection system projects								\$ -
		Annual Misc. Repairs, Replacements & Line Relocations	Reserve for Replacement Fund		\$ 150,000	\$ 4,232	\$ 10,872	Repairs are made as problems are found during televising.
	1707	Autumn Woods, W116thSt, Williams Manor, Springmill Place/Heights Neighborhood Sewer Extensioin Project	Operating Fund	\$ 50,000	\$ 325,000	\$ 210,134	\$ 217,844	extend service into unsewered neighborhoods
		Future Neighborhood Sewer Projects	Operating Fund				\$ -	extend service into unsewered neighborhoods
Equipment								\$ -
		Vehicles	Operating Fund		\$ 25,000		\$ -	Scheduled Replacement of Vehicles
		Gear Reducer	Reserve for Replacement Fund		\$ 60,000		\$ -	
		Chem Tank Drain Replacement	Reserve for Replacement Fund		\$ 8,000		\$ -	
		Refrigerated B.O.D. Incubators	Reserve for Replacement Fund		\$ 7,500		\$ -	Replacement and Upgrades to Lab equipment
		Clayapp Server Replacement	Operating Fund		\$ 8,000		\$ 16,159	
		Datto Replacement (Computer Backup)	Operating Fund		\$ 15,000		\$ -	
Administration Projects								\$ -
		Copier	Operating Fund		\$ 15,000		\$ -	Replacement of copier
		Admin office improvements	Operating Fund		\$ 300,000		\$ 5,540	Expand front office, expand storage, security improvements.
		Plant office/shop improvements	Operating Fund		\$ 200,000		\$ 3,000	Expand office and conference room space.
				Totals	\$ 135,000	\$ 3,248,500	\$ 497,866	\$ 1,025,416 14.71%
				Operating Fund	\$ 85,000	\$ 923,000	\$ 463,775	
				Reserve for Replacement Fund	\$ -	\$ 275,500	\$ 4,232	
				Plant Expansion Fund	\$ 25,000	\$ 300,000	\$ 9,945	
				Interceptor Fund	\$ 25,000	\$ 1,750,000	\$ 19,914	
				Total	\$ 135,000	\$ 3,248,500	\$ 497,866	

TriCo Regional Sewer Utility
Cash Generated
July 2018

	<u>Operating</u>	<u>Interceptor</u>	<u>Plant Expansion</u>	<u>Operating Reserve</u>	<u>Reserve for Replacement</u>	<u>Retainage</u>	<u>TOTAL</u>
Beginning Balance	1,447,636	(60,191)	4,230,701	2,192,400	321,258	(0)	8,131,804 0
Receipts:							
Deposits	629,793	6,113	41,814	0	0	0	677,719
Interest	7,636					0	7,636
Transfers	0					0	0
Total Receipts	<u>637,429</u>	<u>6,113</u>	<u>41,814</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>685,356</u>
Disbursements:							
Checks	485,176					0	485,176
Carmel Utilities	81,297					0	81,297
Plant Outflow 1701						0	0
Plant Odor Control-1505	0					0	0
LS 8 Upgrades - 1904						0	0
LS 4 Forcemain Extension 1901		7,450				0	7,450
96th Keyston Repairs							
LS 4 Elim - 1801		6,824					
106th St Parallel FM-1601	0	3,900				0	3,900
Office Consolidation						0	0
Neighborhood sewers	210,134						
96th Keystone Relocate - 1702	253,640						
Plant Expansion - 1902			9,945				
Springmill Interceptor-1602	1,740						
Transfers						0	0
Total Disbursements	<u>1,031,987</u>	<u>18,174</u>	<u>9,945</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>577,823</u>
Net Increase/(Decrease)	(394,557)	(12,062)	31,869	0	0	0	(374,750)
Ending Balance	1,053,079	(72,253)	4,262,570	2,192,400	321,258	(0)	7,757,054

TriCo Regional Sewer Utility
Cash Generated
YTD July 2018

	<u>Operating</u>	<u>Interceptor</u>	<u>Plant Expansion</u>	<u>Operating Reserve</u>	<u>Reserve for Replacement</u>	<u>Retainage</u>	<u>TOTAL</u>
Beginning Balance	564,232	49,381	3,636,387	2,192,400	331,873	(0)	12,392,191
Receipts:							
Deposits	4,293,122	254,874	647,785	0	0	0	5,195,782
Interest	49,272	0	0	0	0	0	49,272
Transfers	0	0	0	0	0	0	0
Total Receipts	4,342,395	254,874	647,785	0	0	0	5,245,054
Disbursements:							
Checks	2,671,826	0	0	0	10,615	0	2,682,441
Carmel Utilities	606,731	0	0	0	0	0	606,731
Plant Outflow 1701	1,086	0	2,101	0	0	0	3,187
Plant Odor Control-1505	86,131	0	0	0	0	0	86,131
LS 8 Upgrades - 1904	0	637	0	0	0	0	637
LS 4 Forcemain Extension 1901	0	49,950	0	0	0	0	49,950
96th Keyston Repairs	0	0	0	0	0	0	0
LS 4 Elim - 1801	0	15,424	0	0	0	0	15,424
106th St Parallel FM-1601	4,080	310,496	0	0	0	0	314,576
Office Consolidation	5,541	0	0	0	0	0	5,541
Neighborhood sewers	217,844	0	0	0	0	0	217,844
96th Keystone Relocate - 1702	258,569	0	0	0	0	0	258,569
Plant Expansion - 1902	0	0	19,500	0	0	0	19,500
Springmill Interceptor-1602	1,740	0	0	0	0	0	1,740
Transfers	0	0	0	0	0	0	0
Total Disbursements	3,853,548	376,507	21,601	0	10,615	0	3,764,618
Net Increase/(Decrease)	488,847	(121,633)	626,184	0	(10,615)	0	1,480,436
Ending Balance	1,053,079	(72,252)	4,262,571	2,192,400	321,258	(0)	7,757,056

TriCo Regional Sewer Utility Cash & Investments

July 31, 2018

Bank & Purch Date	Account	Amount	Maturity Date	Rate	Fund
<u>Citizens State Bank</u>					
	Checking	\$ 513,416		0.08%	Plant Exp, Oper Res, R 4R
	Money Market	\$ 1,085,714		0.50%	Plant Exp, Oper Res
<u>Merchants Bank of Indiana</u>					
	Money Market	\$ 1,184,605		2.00%	Plant Exp, Operating
	Money Market	\$ 3,782,107		1.50%	Plant Exp, Operating, Oper Res, R4R
<hr/>					
<u>Fifth Third Bank</u>					
7/15/2015	CD - 5 years	\$ 2,000,000	7/15/2020	2.05%	Operating Reserve, Oper
TOTAL CASH & Investments		<u>\$ 8,565,842</u>		1.55%	Interest rate - Total
Less: Cash		<u><u>\$ 6,565,842</u></u>		1.31%	Interest rate - Cash
NET INVESTMENTS		<u><u>\$ 2,000,000</u></u>		2.05%	Interest rate - Investments



MEMORANDUM

To: C&C and B&F Committees

From: Ryan Hartman

Date: August 29, 2018

Subject: Dedications

Jacksons Grant on Williams Creek Section 2, Home Place Gardens, and Children's Theraplay sanitary sewers are complete and ready for dedication.

Recommended Action: Accept the dedication of Jacksons Grant on Williams Creek Section 2, Home Place Gardens, and Children's Theraplay sanitary sewers.



MEMORANDUM

To: C&C and B&F Committees

From: Wes Merkle

Date: August 29, 2018

Subject: WWTP Oxidation Ditch Gear Reducer Replacements

Staff requested quotes from five reputable local contractors who have experience in this type of work. Maddox Industrial Group was the only responsive and responsible contractor quoting \$35,900. Staff believes this is a good price for the amount of new equipment and installation work included in this project. The capital budget included \$60,000 for this project.

Recommended Action: Award the Oxidation Ditch Gear Reducer Replacements contract to Maddox Industrial Group in the amount of \$35,900.



MEMORANDUM

To: C&C and B&F Committees

From: Wes Merkle

Date: August 29, 2018

Subject: Vehicle replacements

At our August 6 meeting, the Committees agreed to replace both 2008 Ford Escapes this year, instead of replacing one this year and another in 2019. Both vehicles are used in the field daily. In the past year both vehicles have had expensive repairs related to brakes, transmission, and other issues. Repair frequency is increasing, and staff is concerned about reliability.

Staff requested quotes from seven local dealerships for two 2018 Ford Escapes. The following quotes were received:

Pearson Ford	\$38,891
Capital City Ford	\$47,812
Don Hinds Ford	\$48,450

Recommended Action: Approve the purchase of two Ford Escapes from Pearson Ford in the amount of \$38,891.



MEMORANDUM

To: C&C Committee

From: Andrew Williams

Date: August 28, 2018

Subject: St. Mary and St. Mark's Sewer Extension

Mr. Khoury, representing St. Mary and St. Mark's Church, attended the August 2014 Capital and Construction Committee meeting regarding the proposed two lot St. Mary & St. Mark Minor Subdivision on the 5 acres parcel north of the Church. The parcel is owned by Thomas R. Jones of North Carolina and is under a land contract with St. Mary & St. Mark Coptic Orthodox Church Inc. Mr. Khoury was in attendance to object to the District's requirement that the sewer had to be extended to the far side of his property as is required of all properties. Mr. Khoury stated that the Church did not want to extend the sewer across the frontage. They would only be willing to grant easements across front of Lots 1 & 2. Since there was an existing house on the proposed Lot 2 that was almost to the proposed R/W line, the C&C Committee discussed the possibility of allowing the Church to extend the sewer only across Lot 1 to service the relocated house if the Church signed an agreement that they would extend it across Lot 2 of their subdivision when sewer needed to go further north. Direction was given to staff to draft an agreement for review at the following meeting. This matter did not move forward since the Church did not follow up on the matter at that time. Staff was informed that once the Church learned what all was required from Carmel to subdivide the parcel, they did not proceed with the subdivision. The relocated house was permitted by Carmel as an addition to the existing house. The two structures have not been connected and have remained unoccupied since then as neither have sanitary facilities.

In July, Mr. Khoury and Mr. Rizkalla have met with Mr. Hartman and me to determine how they can get sewer service to their buildings. The fact that they are no longer subdividing the parcel changes things a bit. They would like to be able to connect into the manhole at the northern edge of their property and not extend the sewer at this time. I explained that they were free to propose that to the Committee but told them we would prepare a proposed agreement based on the general discussion from 4 years ago to extend the sewer north stopping short of the existing house. The following are the general conditions of the sewer extension:

1. Property owners will extend the sewer, consistent with TRICO standards, to within 25 feet of the house obstructing the route of the sewer. All cost will be paid for by Property owners.

2. Property owners will dedicate or otherwise provide to TRICO within 5 days of this agreement, a 25 feet wide easement across the frontage of the parcel centered over the sewer with ingress/egress access thereto.
3. Property owners will extend sewer to the northern property line within SIX months from the notification from TRICO that the sewer must be extended.
4. Property owners will provide within 5 days of the date of this agreement, a bond in the amount of \$20,000 to cover the cost of the extension should the Property owners be unable or unwilling to extend the sewer.

The proposed agreement is attached. Since the partial extension of the sewer is an exception to the Utility's standard practice, this agreement if acceptable to the Committee would need to be presented to the Board for consideration and possible approval.

Proposed **SEWER SERVICE AGREEMENT**

This AGREEMENT, made and entered into as of the date of execution by the last party signatory hereto (hereinafter referred to as "Effective Date") is by and between TriCo Regional Sewer Utility ("TRICO"), St Mary & St Mark Coptic Orthodox Church Inc. and Thomas R. Jones of Clayton, North Carolina.

WITNESSETH THAT:

WHEREAS, TRICO is organized for the purpose of designing, constructing and operating sanitary sewers and related facilities to collect, convey, treat and dispose of wastewater from residences, businesses, industries and institutions located within the boundaries of TRICO; and

WHEREAS, Thomas R. Jones owns real estate in Hamilton County at 12210 Shelborne Road, Parcel Number: 17-09-31-00-00-013.001 and is selling said real estate to St Mary & St Mark Coptic Orthodox Church Inc. on contract, hereinafter referred to jointly as "PROPERTY OWNERS". In 2014, St Mary & St Mark Coptic Orthodox Church Inc. had previously submitted subdivision plans for said parcel showing the subdivision of the real estate into two lots with a house on each lot. The subdivision of the parcel did not occur, and sanitary sewer extension was not extended. St Mary & St Mark Coptic Orthodox Church Inc. has relocated a single family house onto said property as an addition to the existing house on the parcel. Real estate is more particularly described in Exhibit A attached hereto; and

WHEREAS, St Mary & St Mark Coptic Orthodox Church Inc. desires sanitary sewer service for the house with addition and the house is obstructing the extension of the sewer across the entire frontage of the property; and

WHEREAS, TRICO sewer extension policy requires the extension of the sewer main to the far property line: and

WHEREAS, TRICO is willing to allow the extension of the sewer and connection thereto upon the terms and conditions set forth herein; and

NOW, THEREFORE, in consideration of the mutual covenants and agreements contained herein, TRICO, St Mary & St Mark Coptic Orthodox Church Inc. and Thomas R. Jones of Clayton, North Carolina agree as follows:

Sewer Service. To accommodate the immediate connection to the sewer and the future extension of sewer, the PROPERTY OWNERS will connect to TRICO sewers on the following basis.

1. PROPERTY OWNERS will extend the sewer, consistent with TRICO standards, to within 25 feet of the house obstructing the route of the sewer. All cost will be paid for by PROPERTY OWNERS.
2. PROPERTY OWNERS will dedicate or otherwise provide to TRICO within 5 days of this agreement, a 25 feet wide easement across the frontage of the parcel centered over the sewer with ingress/egress access thereto.
3. PROPERTY OWNERS will extend sewer to the northern property line within SIX months from the notification from TRICO that the sewer must be extended.
4. PROPERTY OWNERS will provide within 5 days of the date of this agreement, a bond in the amount of \$20,000 to cover the cost of the extension should the PROPERTY OWNERS be unable or unwilling to extend the sewer.

Miscellaneous.

(a) This Agreement shall at all times be construed and interpreted to be consistent with the rights, powers and duties of TRICO under the laws of the State of Indiana, applicable rules and regulations of the United States Environmental Protection Agency, Indiana Department of Environmental Management, and the ordinances, rules, regulations and policies of TRICO.

(b) This Agreement shall be binding upon and inure to the benefit of the parties hereto, their successors, personal representatives and assigns (to the extent not inconsistent herewith). This Agreement shall not be assigned by any party without the written consent of the non-assigning parties, which consent shall not be unreasonably withheld, conditioned or delayed.

(c) No amendment or modification of this Agreement shall be effective unless contained in a written document executed by the parties hereto (or their successors, personal representatives or assigns).

(d) Failure of any party hereto to insist upon strict performance of the provisions of this Agreement shall not be construed as a waiver of any subsequent default or breach of the same or similar nature.

(e) In the event any provision of this Agreement is declared unlawful or unenforceable by a Court of competent jurisdiction the remaining provisions of this Agreement shall remain in full force and effect.

(f) In the event of any controversy, claim or dispute between the parties arising out of or related to this Agreement or the breach thereof, the prevailing party shall be entitled to recover from the other party reasonable attorneys' fees, costs and expenses in connection with such controversy, claim or dispute. However, prior to either party filing suit, the parties shall participate in pre-suit mediation.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed as of the dates set forth below.

TRICO REGIONAL SEWER UTILITY

Date:_____

By:_____
Marilyn Anderson, President

Attest:_____
Michael McDonald, Secretary

St Mary & St Mark Coptic Orthodox Church Inc.

Date:_____

By:_____

Printed:_____

Title:_____

Thomas R. Jones

Date:_____

By:_____

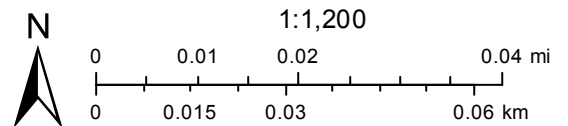
Printed:_____

Title:_____



August 28, 2018

- | | |
|----------------------|-------------------------|
| | Low Pressure Force Main |
| Abandond | Main |
| Abandoned | Outfall |
| Abandoned Force Main | Parcels |
| Force Main | Bridges |
| Interceptor | |



Basemap information here



MEMORANDUM

To: C&C and B&F Committees

From: Wes Merkle

Date: August 29, 2018

Subject: #1902 WWTP Expansion

Since the August 6 Joint Committee meeting there have been questions asked and items requiring additional clarification from staff regarding plant expansion. The information below is presented in a Q&A format to assist Committee members in understanding plant expansion needs. If any questions remain regarding technical aspects, in the interest of saving time at future meetings, please call or email me directly any time to discuss further. At the September 5 Joint Committee meeting staff plans to present project options and focus on finding solutions. Mr. Krohn will be at this meeting to discuss financial aspects.

1. How much more growth can be expected in TriCo's service area?

Consultants and staff have projected service area buildout at 21,900 equivalent dwelling units (EDUs). At the August 6 Joint Committee meeting, Mr. Pittman explained that land values continue to increase in our service area, making development of estate lots more feasible than before. This trend indicates that more acreage will be developed than previously projected.

Staff expects development and construction to continue into the foreseeable future throughout our service area. At the August 13 Board meeting, Mr. Pittman stated that he planned to schedule meetings with Carmel and Zionsville planning staff to learn more about current projections for development and redevelopment in our service area, and he would share what he learned following those meetings.

Both Carmel and Zionsville expect continued higher density multi-family, commercial and mixed-use development along Michigan Road. Carmel plans to see continued higher density development along the Meridian corridor, which includes Pennsylvania Street, Illinois Street and parts of Spring Mill Road, infill of existing large parking lots in the Meridian corridor, and mixed-use redevelopment in Home Place.

2. How does the above information affect current plans?

Growth within our service area could increase total buildout EDUs from what staff and consultants had projected. If that happens we would need even more capacity at TriCo's plant.

3. Do we need to execute another study?

A study should be done at some point to update current plans. At this time staff believes the next logical step or phase of plant expansion is to build what has been proposed. Staff will continue to monitor growth and consider constructing additional capacity with the next phase of plant expansion in 2026-2027, if additional capacity is needed at that time. Additional capacity would be needed sooner if growth accelerates well beyond the current 10-year average of 520 EDUs per year.

4. What happens if TriCo accepts additional service area west of Michigan Road or further north in Union Township?

If additional service area is accepted and developed, then buildout EDUs would have to be revised upwards, which would impact capacity needed at TriCo's plant.

5. Why can't we always meet the daily 1.75 million gallons minimum flow to Carmel WWTP?

In 2017 there were 179 days that we did not meet the minimum flow to Carmel. Note, however, the difference between actual total flow and minimum flow in 2017 was within 5 percent. So far in 2018 that difference is less than 3 percent. Most of the differences came from extended periods of dry weather which affected all parts of our service area. Staff shifted more flow through TriCo's plant for operational purposes at the plant, in addition to maintaining flows through existing force mains from Lift Station 2 (106th/Spring Mill Road). Shifting flows away from our plant during these times to make up the difference at Carmel also comes at a cost.

Average annual daily flow is used for determining plant capacity, not selected flows from the driest days of the year. In 2017, TriCo's plant averaged 2.6 million gallons per day and Carmel's plant averaged 1.9 million gallons per day.

The nominal difference between actual total flow and minimum flow is very good given all the challenges staff has faced when trying to hit that minimum flow to Carmel on the nose. The difference is also within the tolerance of the very equipment used to measure flows and BOD loading. Staff will continue to regularly monitor collection system and plant flows.

It is not practical to try and hone in any further through system improvements. One option previously explored by staff includes alternating flow from Lift Station 23 (West Clay Elementary School) between the Lift Station 2 (106th/Spring Mill

Road) and Lift Station 17 (126th/Michigan Road) basins. This would provide more flexibility in directing flows; however, it would add to system complexity, and it would cost \$75,000 to \$100,000 cost to install motor operated valves and related improvements at Lift Station 23. Growth in the Lift Station 2 basin would make these improvements unneeded before the payback is reached.

6. Can we store flows within the system to better utilize capacity at Carmel?

This is not recommended for our system. Existing in-line storage at Lift Stations 1 and 2 (99th/Keystone and 106th/Spring Mill, respectively) is less than 60,000 gallons. Taking advantage of in-line storage requires surcharging the system and takes away any reaction time staff would have to travel to the lift station and fix problems that arise. In wet weather flows, in-line storage would be used up in less than 15 minutes. Doing this not only eliminates staff's chances of preventing sewer overflows, it would also allow solids to build up, requiring more frequent cleaning of mains and wet wells. Utilizing in-line storage has been done in combined sewer communities that have much larger sewers, making necessary improvements more practical.

7. Can we improve or optimize controls at Lift Station 2 (106th/Spring Mill) to better utilize capacity at Carmel?

This was attempted previously; it was not only unsuccessful, it also reduced reliability of the lift station and controls were so complex that operators had a difficult time performing their jobs. Flows are not consistent day-to-day and there were too many variables to consider to make this possible.

Lift Station 2 pump and force main sizes are the primary reason flows to TriCo's plant cannot be reduced further. Staff can send more flow to Carmel at any time; however, it would complicate operations at our plant. Lift Station 2 is sized for future growth and wet weather flows. We will grow into the station as development in this area continues.

8. Can we send flow to Zionsville WWTP, at least in the short term, to postpone expanding TriCo's WWTP?

Staff has previously discussed this and other ideas with Zionsville. Remaining capacity at their plant is reserved for their existing service area. They have no plans to take on additional service area and they have no interest in taking flow from TriCo either temporarily or permanently.

9. Would additional I&I removal have any impact on plant expansion?

Additional I&I removal efforts are ongoing in certain areas and they are expected to have a localized impact on wet weather flows. While I&I removal also reduces dry weather flows, it does not affect nutrient loading (BOD) which plants are intended to remove. System-wide I&I removal should result in some reduction of flows; however, that impact is not guaranteed, and it is not expected to reduce flows enough to impact plant expansion needs.

TriCo's I&I removal effects have resulted in substantial reduction in wet weather peaks and as a result we have not had an I&I-caused wet weather overflow in over four years. Many engineering consultants do not recommend "chasing" sources of I&I to solve capacity-related problems. TriCo did pursue this approach and was very successful. However, there is also the need add capacity since total removal is not feasible.

10. Why should we expand the plant when we are currently using only part of our capacity at Carmel WWTP?

Staff shifted flows in 2014 after the last plant expansion went online to take advantage of the savings from reduced variable treatment cost at our plant compared to rates charged by Carmel. Since then TriCo's plant has been running at roughly 85 percent of its capacity. During that time all system-wide growth went towards Carmel. This will continue until plant capacities are reached or additional capacity is available at TriCo's plant, allowing staff to again shift flow to our own plant and take advantage of savings, similar to what was done in 2014. Additional capacity should be available before system-wide flows reach 90 percent of capacities at both facilities.

11. How long would it take to get additional plant capacity online?

The design, permitting, bidding and construction process is expected to take 3 to 4 years.

12. Can we postpone any decision to expand TriCo's plant until we reach 100 percent of Carmel WWTP capacity and 90 percent of capacity at TriCo's plant?

If we waited to proceed until TriCo's plant hits 90 capacity and Carmel hits 100 percent capacity, at the current 10-year average of 520 EDUs per year, we would have less than two years to finish a project that will take 3 to 4 years to complete.

The additional 10 percent capacity is a reserve or safety factor and that is employed for many reasons, including but not limited to changing or inconsistent flows, operational challenges both in the collection system and treatment at the plant, and unexpected growth. TriCo already operates an unusually complex plant and collection system and difficulties of meeting specific flows to Carmel were already discussed above. Pushing a system closer towards its "red line" maximum increases the likelihood of problems with treatment or handling flows. It also reduces staff's reaction time to future challenges as well as any built-in system buffers or redundancy to accommodate changes in our continuously growing service area. In my professional opinion safety factors are non-negotiable, both in terms of buildout capacity and in terms of when we need new capacity online. Disregarding safety factors puts TriCo's core value of environmental stewardship at risk.

13. What happens when we reach capacity at both TriCo and Carmel WWTPs?

Before any development proceeds, staff must sign a certification letter stating that TriCo has sufficient capacity to accommodate the proposed development. Once treatment capacity is reached and staff can no longer make this certification, no new development can proceed and no new homes or businesses may connect to sewers until sufficient capacity is online. IDEM can also issue a sewer ban, which effectively means no new construction in our service area. Note that capacity is not only determined by flows, it also includes nutrient or BOD loading and our ability to effectively meet various effluent limits. Also note that it takes several years to design and build a subdivision and build homes on each new lot, so once staff signs off on a new development, it will be several years before TriCo sees new flows. As we approach capacity at both plants staff will have to take this into account when considering new developments.

14. Are parts of the plant expansion needed sooner than others?

At our current growth rate, improvements to accommodate wet weather flows need to be online by the end of 2021. These improvements include a secondary clarifier, a third mechanical screen, a third UV disinfection channel and a new emergency generator. To meet this timeframe, design has to begin later this fall.

Improvements to accommodate average daily flows need to be online by the end of 2023. These improvements include new vertical loop reactors (VLRs).

Remaining plant expansion improvements would be constructed under a separate project anticipated in 2026-2027. Capacity needs should be reevaluated at that time.

Grit removal does not directly impact plant capacity and can be constructed at any time.

15. Is there an advantage to proceeding with the design and permitting now?

This should reduce the overall cost of design, save staff time, and streamline design and permitting with IDEM. Postponing VLR construction may require minor design changes down the road. VLR construction would essentially be shovel ready and complete in 2 to 3 years once a decision is made to proceed.

16. If everything is designed and permitted, will we have the option later to postpone bidding and construction of certain components later?

Staff plans to instruct the design consultant to break the project into multiple components or bid packages. This should open project construction to more competition, resulting in better overall pricing for TriCo. It also allows us to see actual pricing once bids are received. The decision to postpone one or more components can be made at that time.

17. What are the advantages to having new VLRs online before additional capacity is actually needed?

Constructing new VLRs before additional capacity is actually needed will allow staff to shift flows from Carmel to TriCo's plant in the future, generating operational cost savings, as discussed above. An attachment provided with the August 6 Joint Committee packet summarized plant expansion options (provided with this memo). A handout at the August 6 Joint Committee meeting provided operational savings calculations among multiple plant expansion options.

Another advantage to constructing capacity earlier is less dependency on Carmel in the event of another large rate increase. Carmel treatment is TriCo's second largest operating expense; it is budgeted for \$1.1 million in 2018. Carmel's rate jumped 38 percent in 2015. An option to send flows elsewhere should give TriCo additional leverage when negotiating the next rate increase, which is anticipated in 2019.

Constructing additional capacity allows staff to confidently accommodate continued development within our service area. It also gives us the ability to accommodate new service area such as the areas west of Michigan Road or further north in Union Township. It provides staff options and flexibility to handle collection system flows and deal with operational challenges at the plant.

18. What are the advantages of adding grit removal?

Grit removal effectively removes heavier inorganic particles from wastewater that would otherwise settle out in the oxidation ditch or VLRs. Staff drains these structures every few years to physically remove the sediment buildup from the bottoms of the tanks. This buildup reduces tank volumes and reduces treatment effectiveness. Postponing grit removal to 2026-2027 would add nearly \$700,000 to plant buildout costs due to price escalation and increase operating costs by \$100,000-200,000 for tank cleaning expenses. Operational difficulties and inefficiencies caused by sediment buildup and removal, while difficult to quantify, must also be considered.

19. What components were included in the financial analysis comparing options?

The attachment provided with the August 6 Joint Committee packet summarized plant expansion options (provided with this memo). The difference between options is postponing construction of VLRs and grit removal.

The financial analysis considered capital costs, price escalation with postponed construction, payments to Carmel, TriCo's variable treatment costs, additional operating costs, and borrowing costs.

20. Why was variable treatment cost at TriCo's plant included when comparing plant expansion options?

Staff worked with O.W. Krohn Associates to develop a cash model to project the budget impact of various plant expansion options. Variable treatment cost at TriCo's plant includes budget items that will increase with additional flows, currently \$648 per million gallons. Carmel charges a set rate for all flows sent to its plant, currently \$1,429 per million gallons. Fixed treatment costs are incurred regardless of the amount of flow treated at TriCo's plant, so fixed costs are the same across all options.

21. What improvements are paid for with EDU fees?

Funding for plant improvement projects will ultimately be paid for by Connection (EDU) Fees - except for replacement of the belt filter press, generator, and three smaller clarifiers which will be replaced with one larger secondary clarifier. Replaced components will be paid for by the Reserve for Replacement fund. Connection (EDU) Fees should increase by 5 percent annually through 2021 with no further increases anticipated.

22. If we spend \$22.3 million in improvements at the plant, would it only save \$500,000 per year and take over 4 decades to break even?

Using \$22.3 million in an attempted cost-benefit analysis suggests that plant expansion projects can be avoided altogether; the merits of plant expansion as well as the risks of doing nothing have been discussed above. Growth would have to slow to a stop over the next few years to avoid any future expansion of TriCo's plant.

As discussed above the \$22.3 million in improvements include multiple components associated with replacement and not increasing plant capacity. Operational cost savings can only be realized with an increase in daily flow capacity that would allow staff to shift future flows from Carmel to TriCo's plant. An increase in daily flow capacity is accomplished through construction of new VLRs. Therefore, only the cost of VLR construction should be considered with operational cost savings.

The cited \$500,000 per year is not savings - it is the approximate difference between variable treatment cost at TriCo's plant and budgeted payment to Carmel for treatment in 2018. According to the handout provided at the August 6 Joint Committee meeting the difference is actually \$460,000. That difference escalates each year due to increasing rates as well as the fact that all growth in flow goes towards Carmel. In 2021, that difference is projected to grow to \$775,000. If VLR construction is postponed by 2 years, in 2023 that difference would grow to nearly \$1.03 million. Savings can only be realized if VLRs are constructed sooner than needed, allowing flow to be shifted from Carmel to TriCo, as discussed above.

23. Is borrowing required with every option?

All options require borrowing except for Option 2a. Option 2a postpones VLR construction by two years and it postpones grit removal to the 2026 expansion. Option 2a will cost nearly \$1.3 million more than Option 1 through 2027 when considering price escalation with postponed construction, payments to Carmel, TriCo's variable treatment costs, additional operating costs, and borrowing costs.

24. How much money would be maintained in reserves with each plant expansion option?

See the attachment provided with the August 6 Joint Committee packet. Borrowing needs are noted with each plant expansion option. The borrowing amounts are based on allowing TriCo to maintain approximately \$3 million in reserves during an economic downturn comparable to the last recession.

25. Is a rate increase necessary to cover borrowing costs?

A 5 percent rate increase is planned for next year regardless of which option is selected. TriCo's rates will continue to remain among the lowest in central Indiana. After next year there are no more planned rate increases for at least 10 years.

26. How will the different options affect EDU fees?

If Option 1 is selected, then 5 percent EDU fee increases are planned for 2019 and 2020 to cover buildout capital costs at the plant. All other options will increase buildout capital costs, so additional EDU fee increases will be required.

27. Has staff's recommendation changed?

Staff continues to recommend proceeding with design of the 2020-2021 plant expansion project including the addition of a third mechanical screen, grit removal, three VLRs, a secondary clarifier, a third UV disinfection channel and backup power upgrades.

Baseline Scenario VLR Construction Phase Opportunity Cost Comparison			3.5 Carmel annual rate increase, % 3.5 TriCo operating cost escalation, % 0 TriCo ROR, % 0.161 TriCo full service area growth, MGD 648 TriCo variable treatment cost per MG						1.5 MGD Add'l Capacity @ WWTP																							
									4,839 Add'l EDU's @ 310 GPD																							
									9.7 Yrs @ 500 EDUs Annual Growth																							
									2,000 EDU Growth Thru 2021 (4yrs) 5.7 Yrs of Remaining Growth Capacity																							
			Baseline - Build VLRs 5-7 in 2020-2021						Baseline - Build VLRs 5-7 in 2022-2023						Baseline - Build VLR 7 in 2026-2027						Baseline - Build VLRs 5+6 in 2022-2023 and VLR 7 in 2026-2027											
Est ADF Full Service Area, MG			TriCo ADF, MG	Carmel ADF, MG	TriCo WWTP variable cost per MG	Carmel Treatment Rate per MG	Variable treatment cost	Payment to Carmel	TriCo ADF, MG	Carmel ADF, MG	Variable treatment cost	Payment to Carmel	Net cost to TriCo	Cumulative cost to TriCo	TriCo ADF, MG	Carmel ADF, MG	Variable treatment cost	Payment to Carmel	Net cost to TriCo	Cumulative cost to TriCo	TriCo ADF, MG	Carmel ADF, MG	Variable treatment cost	Payment to Carmel	Net cost to TriCo	Cumulative cost to TriCo						
Year	# years >2018																															
2018	0	4.66	2.60	2.06	648	1,429	614,952	1,074,465	2.60	2.06	614,952	1,074,465	-	-	2.60	2.06	614,952	1,074,465	-	-	2.60	2.06	614,952	1,074,465	-	-						
2019	1	4.82	2.60	2.22	671	1,465	636,475	1,187,401	2.60	2.22	636,475	1,187,401	-	-	2.60	2.22	636,475	1,187,401	-	-	2.60	2.22	636,475	1,187,401	-	-						
2020	2	4.98	2.60	2.38	694	1,516	658,752	1,318,048	2.60	2.38	658,752	1,318,048	-	-	2.60	2.38	658,752	1,318,048	-	-	2.60	2.38	658,752	1,318,048	-	-						
2021	3	5.14	2.60	2.54	718	1,569	681,808	1,456,384	2.60	2.54	681,808	1,456,384	-	-	2.60	2.54	681,808	1,456,384	-	-	2.60	2.54	681,808	1,456,384	-	-						
2022	4	5.30	3.55	1.75	744	1,624	964,599	1,037,309	2.60	2.70	705,672	1,602,790	306,554	306,554	3.50	1.80	949,942	1,069,317	17,352	17,352	2.60	2.70	705,672	1,602,790	306,554	306,554						
2023	5	5.47	3.72	1.75	770	1,681	1,043,586	1,073,615	2.60	2.87	730,370	1,757,660	370,829	677,384	3.50	1.97	983,190	1,205,516	71,505	88,857	2.60	2.87	730,370	1,757,660	370,829	677,384						
2024	6	5.63	3.88	1.75	797	1,740	1,126,922	1,111,191	3.88	1.75	1,126,922	1,111,191	-	677,384	3.50	2.13	1,017,602	1,349,938	129,428	218,285	3.50	2.13	1,017,602	1,349,938	129,428	806,812						
2025	7	5.79	4.04	1.75	824	1,801	1,214,812	1,150,083	4.04	1.75	1,214,812	1,150,083	-	677,384	3.50	2.29	1,053,218	1,502,994	191,317	409,603	3.50	2.29	1,053,218	1,502,994	191,317	998,129						
2026	8	5.95	4.10	1.85	853	1,864	1,276,952	1,256,994	4.10	1.85	1,276,952	1,256,994	-	677,384	3.50	2.45	1,090,081	1,665,110	221,244	630,847	3.50	2.45	1,090,081	1,665,110	221,244	1,219,373						
2027	9	6.11	4.10	2.01	883	1,929	1,321,645	1,414,333	4.10	2.01	1,321,645	1,414,333	-	677,384	3.50	2.61	1,128,234	1,836,732	228,988	859,834	3.50	2.61	1,128,234	1,836,732	228,988	1,448,361						
2028	10	6.27	4.10	2.17	914	1,996	1,367,903	1,581,146	4.10	2.17	1,367,903	1,581,146	-	677,384	4.10	2.17	1,367,903	1,581,146	-	859,834	4.10	2.17	1,367,903	1,581,146	-	1,448,361						
2029	11	6.43	4.10	2.33	946	2,066	1,415,779	1,757,902	4.10	2.33	1,415,779	1,757,902	-	677,384	4.10	2.33	1,415,779	1,757,902	-	859,834	4.10	2.33	1,415,779	1,757,902	-	1,448,361						
2030	12	6.59	4.10	2.49	979	2,138	1,465,332	1,945,095	4.10	2.49	1,465,332	1,945,095	-	677,384	4.10	2.49	1,465,332	1,945,095	-	859,834	4.10	2.49	1,465,332	1,945,095	-	1,448,361						
2031	13	6.75	4.10	2.65	1,013	2,213	1,516,618	2,143,238	4.10	2.65	1,516,618	2,143,238	-	677,384	4.10	2.65	1,516,618	2,143,238	-	859,834	4.10	2.65	1,516,618	2,143,238	-	1,448,361						
2032	14	6.81	4.10	2.71	1,049	2,291	1,569,700	2,265,911	4.10	2.71	1,569,700	2,265,911	-	677,384	4.10	2.71	1,569,700	2,265,911	-	859,834	4.10	2.71	1,569,700	2,265,911	-	1,448,361						
Variable Treatment Costs thru 2027			9,540,503						12,079,823						8,814,255						8,317,164											
Combined Variable Treatment Costs thru 2027			21,620,327						22,297,710						22,480,161						23,068,687											
Total Incremental O&M costs thru 2027 versus Baseline Proposal			-						677,384						859,834						1,448,361											
Plus Interest on Temporary Loans / Bonds			826,000						240,000						580,000						100,000											
Plus Inflation in Capital Costs Due to Staging Projects (See Table with 7 Options)			-						374,000						1,674,000						2,574,000											
Total Incremental O&M & Capital Cost Differentials			826,000						1,291,384						3,113,834						4,122,361											

TriCo Regional Sewer Utility - Hamilton, Boone Marion Counties

Project No. 1902 WWTP Expansion Options								
Option #	Option 1 (recommended)	Option 2	Option 2a	Option 3	Option 3a	Option 4	Option 4a	
<u>Construction 2020-2021</u>								
Scope of work	screen, grit removal, 3 VLRs, clarifier, UV disinfection, generator	screen, grit removal, clarifier, UV disinfection, generator	screen, clarifier, UV disinfection, generator	screen, grit removal, 2 VLRs, clarifier, UV disinfection, generator	screen, 2 VLRs, clarifier, UV disinfection, generator	screen, grit removal, clarifier, UV disinfection, generator	screen, clarifier, UV disinfection, generator	
Estimated project cost	\$ 13,400,000	\$ 7,100,000	\$ 4,500,000	\$ 11,700,000	\$ 9,000,000	\$ 7,100,000	\$ 4,500,000	
TriCo WWTP capacity at completion (ADF / PHF, in MGD)	4.56 / 19.2	3.05 / 19.2	3.05 / 19.2	4.06 / 19.2	4.06 / 19.2	3.05 / 19.2	3.05 / 19.2	
<u>Construction 2022-2023</u>								
Scope of work	none	3 VLRs	3 VLRs	none	none	2 VLRs	2 VLRs	
Estimated project cost	\$ -	\$ 6,800,000	\$ 6,800,000	\$ -	\$ -	\$ 4,900,000	\$ 4,900,000	
TriCo WWTP capacity at completion (ADF / PHF, in MGD)	no change	4.56 / 19.2	4.56 / 19.2	no change	no change	4.06 / 19.2	4.06 / 19.2	
<u>Construction 2026-2027</u>								
Scope of work	2 clarifiers, belt filter press	2 clarifiers, belt filter press	grit removal, 2 clarifiers, belt filter press	1 VLR, 2 clarifiers, belt filter press	grit removal, 1 VLR, 2 clarifiers, belt filter press	1 VLR, 2 clarifiers, belt filter press	grit removal, 1 VLR, 2 clarifiers, belt filter press	
Estimated project cost	\$ 8,900,000	\$ 8,900,000	\$ 12,200,000	\$ 12,200,000	\$ 15,500,000	\$ 12,200,000	\$ 15,500,000	
TriCo WWTP capacity at completion (ADF / PHF, in MGD)	4.56 / 23.0	4.56 / 23.0	4.56 / 23.0	4.56 / 23.0	4.56 / 23.0	4.56 / 23.0	4.56 / 23.0	
Anticipated borrowing needed to maintain \$4M in reserves under baseline scenarios & \$3M if a temporary downturn occurs	10 year \$5.75M bond callable after 5 years	\$1,750,000	\$0	\$4,250,000	\$2,750,000	\$1,000,000	\$1,250,000	
Total estimated costs for all 3 projects	22,300,000	22,800,000	23,500,000	23,900,000	24,500,000	24,200,000	24,900,000	
Payments to Carmel thru 2027 for treatment	12,100,000	13,300,000	13,300,000	13,700,000	13,700,000	14,800,000	14,800,000	
TriCo WWTP variable treatment cost thru 2027	9,500,000	9,000,000	9,000,000	8,800,000	8,800,000	8,300,000	8,300,000	
TriCo additional operating costs thru 2027 without grit removal	-	-	200,000	-	200,000	-	200,000	
Estimated borrowing costs (assumes 4% annual cost of capital)	826,000	240,000	-	580,000	260,000	100,000	100,000	
Grand total	44,726,000	45,340,000	46,000,000	46,980,000	47,460,000	47,400,000	48,300,000	
Add'l cost compared to option 1	N/A	614,000	1,274,000	2,254,000	2,734,000	2,674,000	3,574,000	
Capital Replacements, Improvements, Outlays								
	Year	Option 1 (recommended)	Option 2	Option 2a	Option 3	Option 3a	Option 4	Option 4a
	2019	7,975,000	7,471,000	7,263,000	7,839,000	7,623,000	7,471,000	7,263,000
	2020	7,465,000	4,882,000	3,816,000	6,768,000	5,661,000	4,882,000	3,816,000
	2021	6,830,000	4,791,000	3,725,000	6,133,000	5,026,000	4,639,000	3,573,000
	2022	2,505,000	5,293,000	5,293,000	2,505,000	2,505,000	4,514,000	4,514,000
	2023	2,330,000	5,118,000	5,118,000	2,330,000	2,330,000	4,339,000	4,339,000
	2024	2,005,000	2,005,000	2,005,000	2,005,000	2,005,000	2,005,000	2,005,000
	2025	2,530,000	2,530,000	2,794,000	2,794,000	3,058,000	2,794,000	3,058,000
	2026	6,400,000	6,400,000	7,753,000	7,753,000	9,106,000	7,753,000	9,106,000
	2027	4,430,000	4,430,000	5,783,000	5,783,000	7,136,000	5,783,000	7,136,000
TOTALS - 2019 TO 2027	42,470,000	42,920,000	43,550,000	43,910,000	44,450,000	44,180,000	44,810,000	
INTEREST COSTS @ 4%	826,000	240,000	-	580,000	260,000	100,000	100,000	
TOTAL CAPITAL COST & INTEREST	43,296,000	43,160,000	43,550,000	44,490,000	44,710,000	44,280,000	44,910,000	
TOTAL BORROWED CAPITAL	\$5,750,000	\$1,750,000	\$0	\$4,250,000	\$2,750,000	\$1,000,000	\$1,250,000	

PRELIMINARY - FOR DELIBERATIVE PURPOSES