# **CITY UTILITIES**

200 E Berry Street, Suite 270 Fort Wayne, IN 46802



## **UTILITY ADVISORY GROUP MEETING – Meeting Notes**

<u>Wednesday, December 5, 2018 – 5:30 p.m.</u>

Citizens Square - Room 255

### **Attending**

David Kohli, Chair

Rod Vargo, Northwest Area Partnership

Beulah Matzack, Southwest Area Partnership

Bryan McMillan, Southwest Area Partnership

Pone Vongphachanh, Upstate Association of Realtors

Dan Wire, Parks Dept.

Mike Gierscher, Superintendent, Water Filtration Plant

Vicky Zehr, Water Quality Manager

Justin Brugger, City Utilities Deputy Director - Finance, CFO

Ashley Faurote, Program Manager – Financial Analysis

Kurt Roberts, Superintendent, Water Maintenance and Service

Brian Robinson, Superintendent, Water Pollution Control Plant

Mike Kiester, City Utilities Engineering

T.J. Short, P.E., City Utilities Engineering

Mary Jane Slaton, Program Manager, City Utilities

#### The meeting was called to order by David Kohli, Chair, at 5:30 PM.

UAG members and City Utilities staff members introduced themselves.

#### 2019 City Utilities Budget Overview

City Utilities Deputy Director for Finance and CFO Justin Brugger gave a preview of the 2019 budget for City Utilities that will be presented to the Board of Public Works and Board of Stormwater Management on December 18, 2018. Justin highlighted the following:

- Water consumption overall is up as a result of City Utilities now providing water to the former Aqua southwest service area. However, the average residential customer is using less water as a result of water saving appliances, a conservation ethos, sensitivity to rates and general demographics. More single person households and smaller family size.
- Because City Utilities experiences lots of fixed costs that stay the same or go up regardless of how
  much water is distributed, there is upward pressure on rates when consumption per household goes
  down.
- Lower water consumption means less sewage but on the sewer side, City Utilities has not had growth resulting from Aqua (Aqua Indiana still serves southwest area with sewer).
- The budget for the water utility is contingent upon the proposed water rate increase being approved by the Indiana Utility Regulatory Commission and implemented. If approved, an increase in water revenue of about 2.5% is expected as a result of the rate increase.



- 2019 proposed budget shows an increase in spending of about 2.9% for a total operating budget of approximately \$70.2 million. Capital investment for 2019 will be approximately \$110.9 million.
- Construction of the deep rock tunnel (part of CSO Long Term Control Plan) has a big impact on the magnitude of capital spending.
- The water utility budget especially capital spending is dependent on planned rate increase being approved by Indiana Utility Regulatory Commission. CU anticipates an increase in water revenue of about 2.5% for the last 6 months of 2019.

#### **Water Utility Corrosion Control Program**

Water Filtration Plant Superintendent Mike Gierscher and Water Quality Manager Vicky Zehr gave an update on results of water quality testing for lead done in summer 2018 and planned changes in the treatment process at the Filtration Plant to provide additional pipe corrosion control.

- City Utilities' water has been named best tasting in the State by Indiana Rural Water Alliance.
- During summer of 2018, our water sampling at homes around Fort Wayne showed too many samples
  exceeded lead limit. Water coming from the Filtration Plant is well within the lead limit. We use
  chemicals to adjust the pH level to control corrosion in household plumbing that can result in elevated
  lead levels in drinking water in some older homes. Because of a few high results we have done a
  public notice by mail to all customers.
- Water leaving Filtration Plant is well within state and federal limits for lead in fact lead in water leaving Plant is near 0.
- Filtration Plant has historically used pH adjustment to reduce likelihood that lead pipes in homes and businesses will corrode and allow lead to leach into drinking water. Higher pH means water is less acid and less likely to cause corrosion or removal of scale inside pipes that forms a barrier between lead pipes and water.
- Consulting firms have analyzed Filtration Plant process and have recommended that we add a corrosion inhibitor to better control pipe/plumbing corrosion in homes with lead service lines or lead plumbing.
- City Utilities has been communicating with Indiana Department of Environmental Management about implementing use of orthophosphate. A 30-day public notice is in process (notice may be found on IDEM website), and we hope to start using orthophosphate on Jan. 7, 2019.
- Orthophosphate will produce a phosphate scale that will adhere to inside of pipes. When we add
  orthophosphate, we will also decrease pH. Typical pH of water leaving Plant is not 9 and it will go
  down to 8.6. We must maintain pH of 8.3 at the tap. (pH of river water is typically between 7.8 and
  8 1)
- As we implement changes we will monitor impacts on water quality in the distribution system. Questions included:
  - How does City Utilities test water at the tap? CU collects water samples at 100 locations around the community homes and businesses that voluntarily provide water samples.
  - Have other communities implemented orthophosphate and was it successful? Vicky explained that it
    has worked well in other places. One impact may be that we will need to increase chlorine to achieve
    the chlorine residual that is required in the water distribution system. Part of the reason for
    implementing orthophosphate now is to get ahead of anticipated lowering of lead limit by state.
  - Will increasing level of phosphorus in water have any impact at the WPC Plant in terms of changes that may need to be made to meet phosphorus limit for discharge? Per Superintendent Brian



Robinson, we don't know yet. There could be an increase in chemical cost if we need to adjust sewage treatment process to take out more phosphorus.

#### **Departmental and Project Updates**

T.J. Short, P.E., who is the project manager for the TunnelWorks program gave a tunnel construction update:

- The "working shaft" at tunnel start site near WPCP is 33' in diameter and will be the upflow shaft when project is complete. This shaft is currently at the depth needed of 220'. All blasting for working shaft is done.
- The pump station shaft is 66' in diameter. Blasting for this shaft is 95% complete.
- The starter tunnel between the two shafts is 90' long and is 95% complete. Rubble must still be removed.
- The tail tunnel will also be 90' long. It is not yet started, but grouting is underway. Grouting is done before blasting to control groundwater.
- Contractor is working 24 hours a day at the working shaft site. When finished there, they will move to the retrieval shaft site at Foster Park and begin digging the retrieval shaft. Work at Foster Park will not be on a 24 hour a day schedule because of the residential neighborhood.
- Site conditions are as expected. Before bidding many rock cores were drilled to document underground conditions. The cores are all stored in boxes and were available to the bidders to look at as they prepared bids. Brian suggested that UAG members might like to see a core.
- Cloudy skies seem to be making noise from the worksite more noticeable. Noise complaints up slightly due to sound waves created when blasting is being done. When people say they feel shaking it is more due to moving sound waves and not moving earth.
- The tunnel boring machine is expected to be lowered into the ground in late January or early February. Two sets of pre-cast concrete liner panels arrived at the site today. Each ring has 6 panels that will be installed and secured by the TBM as it moves forward. Each piece is 1 foot thick.
- The tunnel will operate by gravity. The drop in elevation from the Foster Park site to the WPC Plant site is about 35'. The tunnel will be able to transport approximately 850 million gallons of combined sewage per day and will have a storage volume of 40 million gallons.
- In large storms, combined sewage will be pushed up to ground level at the sewage treatment plant via siphon action. There will also be a pump station to dewater the tunnel when it is no longer full enough to operate by siphon.
- TJ discussed and described drop shaft construction. There will be 9 drop shafts that will connect near surface sewers to the tunnel. Several are under construction now. Construction of drop shafts occurs in four steps: Soil boring, rock boring, grouting and installing a permanent liner.
- The diameter of the drop shafts varies from 4' to 12'. There will also be smaller vent shafts at some drop shaft sites.

## T.J. responded to several questions including:

- How many people are working at the tunnel work site each day? There are approximately 100 people working at the construction site and another 30 people working at the drop shaft sites.
- What is the project going on beside the Honey Dam? When heading north on Anthony Blvd. if you look to the right (east) you will see several large cranes. That is the working shaft site at WPC Plant. To the west of Anthony City Utilities is upgrading the Morton Street Pump Station and adding a new 53" force main that will carry combined sewage to the storage ponds on the north side of the Maumee River across from the WPC Plant.



Mike Kiester provided a list of construction projects that are underway.

- Similar to the last few updates, the fewest projects are currently being done in the water utility because of the lack of funds for capital projects. If the pending water rate case is approved, City Utilities expects to replace about 70 miles of water main in the next 5 years or about 14 miles per year. That in on track with the goal of replacing 1% per year.
- Largest investment continues to be in the sewer utility.
- With income from the rate increase approved in 2017, the stormwater utility is ramping up design and construction of projects and expects to invest about \$40 million in the next 4 years.
- Mike also distributed an analysis of project change orders approved in 2018. On average, change orders reduced project costs by 1.62%

### Brian Robinson provided an update on projects at the WPC Plant:

- Upgrades to the digesters are nearly complete. Changes in how digesters are operated are being
  implemented to increase methane/energy production. Digesters keep sludge at 95-degree
  temperature consistently. Methane produced from our digesters is used to heat our own buildings
  and we are able to generate 800 mg of power.
- Spoil from the tunnel working shaft site is being used on the roads at the biosolids facility and on the road around Camp Scott. Currently stone coming from the working shaft is being used faster than it is being mined.
- The Morton Street Pump station is both a combined sewer and a sanitary sewer pump station. The project to upgrade the combined sewer side has been done while keeping the sanitary sewer side operating. After the project is complete stormwater from Lakeside Park will no longer go to the Morton Street pump station.
- City Utilities is looking into doing a pilot project to produced bagged biosolids to sell. We have been receiving treated sewage sludge from some small communities if they are not able to get rid of it. In 2018 we sold 18,000 tons of biosolids through our partnership with Fox.

#### Mike Gierscher provided an update on activities at the Filtration Plant:

- In 2018, the Filtration Plant was able to reduce taste and odor complaints by 88%.
- Funding is included in the currently pending water rate case to allow City Utilities to install a groundwater well that would supplement water coming from the St. Joe River. Taking water from the well would allow us to reduce hardness and reduce taste & odor issues. The well is anticipated to produce 2 million gallons per day. We will not convert to using only well water but will be able to mix water from both sources.
- City Utilities will be contracting with an outside provider to help with lead/copper sampling. Homes and businesses that will provide samples will receive a bottle and instruction s by mail and will mail it back to a lab that will do the testing and provide test results to us and to the sample provider.
- The Filtration Plant has a number of job openings. Please share this information with people who might be interested in working for the City.

### **Other Business**

- Dan Wire provided an update on plans for tree trimming in from of Filtration Plant. Goal is to make plant façade more visible
- Dan also shared that Parks Department is interested in working with City Utilities on plans for placing floating booms at stormwater outfalls to capture floatables.



- Regarding trees and large limbs in the rivers and on City Utilities dams, the goal is to capture them at the Parnell Avenue bridge. There was also discussion about how much river levels can be raised or lowered by raising or lowering tainter gates. Especially in flood conditions when water is at the top of the rollers on Hosey Dam, the tainter gate has little impact.
- UAG meeting dates for 2019:

March 6

June 5

September 4

December 4

## Adjournment

The meeting was adjourned at 7:50 PM.





# **Utility Advisory Group**

# December 5, 2018

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## Open "Capital" Project Report - December 5, 2018

No.	Project Name	Work Order	Planning Area	% Phase Complete	Project Start Date	Bid Date	Project End Date	PM Estimate		
1	Summit Pump Station	66481	NW	90	8/14/2015	10/9/2018	7/9/2019	\$1,970,000.00		
2	Lake and Beacon Large Valve Project	66525	Council District 1	90	9/25/2017	10/23/2018	5/28/2019	\$162,800.00		
3	Directors Row, Executive to Production WMR	66544	Council District 3	100	1/25/2016	1/30/2018	8/24/2018	\$329,320.0		
4	Beacon Glenwood Area WMR	66592	Council District 2	95	5/4/2016	3/27/2018	6/1/2019	\$1,233,000.0		
5	Wald Road Water Main Extension	66689	NW	0	2/27/2017	8/28/2018	3/19/2019	\$252,016.0		
6	Plant Filter Renovations - 2018	66748	City-Wide	10	6/4/2018	12/4/2018	7/10/2018	\$218,500.0		
7	Residential Water Meter & Radio (AMI) Replacement (Water share)	66789	City-Wide	5	1/1/2018	12/18/2018	3/29/2022	\$29,822,000.00		
							WATER	\$33,987,636.00		
1	Three Rivers Protection & Overflow Reduction Tunnel (3RPORT)	76003	City-Wide	30	10/23/2013	2/16/2017	2/2/2022	\$228,588,112.0		
2	Flaugh Road Lift Station & Sewer Extension	76109	Council District 3	90	2/2/2015	12/20/2017	2/20/2019	\$949,464.0		
3	Huffman Sewer Separation - Phase I	76114	Council District 3	35	4/28/2015	3/20/2018	2/28/2019	\$5,766,740.0		
4	Spy Run Interceptor Relief - Spy Run Creek Siphon Crossings		Council District 3	0	2/3/2015	5/10/2017	7/18/2018	\$454,326.4		
5	Morton Street Lift Station Modifications		Council District 1	55	12/1/2015	1/30/2018	11/13/2019	\$7,962,000.00		
6	Digester Improvements - #3 and #4 Upgrades	76189	City-Wide	85	7/21/2015	3/22/3017	4/30/2019	\$7,825,000.00		
7	CSOCM10 - Morton Street Discharge to Ponds - Part II - New Force Main	76280	Council District 1	40	12/1/2015	1/23/2018	10/2/2019	\$6,952,388.00		
8	Flaugh Road Phase II Septic Elimination	76293	NW	99	12/2/2016	10/11/2017	10/9/2018	\$186,021.32		
9	Harrison & Superior Street Consolidation Sewer	76301	Council District 5	90	7/26/2016	8/16/2017	8/1/2018	\$3,687,475.00		
10	2018 Open Cut	76348	City-Wide	0	1/26/2017	11/20/2018	8/13/2019	\$677,000.00		
11	2018 Manhole Rehab	76349	City-Wide	95	1/26/2017	5/22/2018	1/15/2019	\$165,000.00		
12	1200-1300 Block Carroll Road Septic Elimination	76363	NW	80	6/1/2017	1/30/2018	12/14/2018	\$38,503.27		
13	3600 Block Leesburg Road Septic Elimination	76384	Council District 3	70	9/1/2017	1/23/2018	12/11/2018	\$91,701.70		
14	Dupont LS Pumps and Controls	76389	Council District 2	20	5/5/2017	5/15/2018	6/3/2019	\$164,984.48		
15	WPCP Pond 3 Bleedback	76401	City-Wide	45	9/5/2017	4/24/2018	4/16/2019	\$1,724,000.00		
16	Golfview and Flaugh Road Force Mains	76412	Council District 3	95	12/28/2017	1/30/2018	3/12/2019	\$836,616.00		
17	Golfview Lift Station Improvements	76414	Council District 3	60	2/14/2018	3/20/2018	1/29/2019	\$241,477.00		
18	2017 CIPP Package 1	76423	Council District 2	70	9/1/2017	12/13/2017	3/12/2019	\$2,437,000.00		
19	Paulding Road Sewer Extension and Septic Elimination	76524	Council District 6	99	4/26/2018	7/31/2018	2/19/2019	\$91,667.00		
20	Pond 3 to WPCP Sample Lines - Mechanical Piping	76531	City-Wide	100	5/14/2018	6/12/2018	12/4/2018	\$94,065.41		
21	2018 CIPP Pkg #1 - Small and Medium Diameter	76556	City-Wide	10	7/26/2018	12/4/2018	9/17/2019	\$1,061,000.00		
							SEWER	\$269,994,541.62		
1	Miscellaneous Storm Improvements Package	83452	Council District 5	95	1/29/2015	1/16/2018	12/11/2018	\$151,447.47		
2	Maplewood Park Storm Improvements	83458	Council District 1	65	12/15/2009	12/6/2017	8/12/2019	\$928,902.41		
3	Karen & Kingsley Storm Drainage Improvements	83472	Council District 1	100	12/17/2010	6/5/2018	1/29/2019	\$319,243.00		
4	Concordia HS 48 inch Storm Sewer Rehab	83499	Council District 2	99	10/8/2015	5/8/2018	12/4/2018	\$118,035.00		
	Northeast Drainage Improvements - Package 1	83503	Council District 1	90	6/8/2015	10/25/2017	12/12/2018	\$291,133.04		
6	Buesching Dr. Drainage Improvements	83513	Council District 1	99	4/24/2015	11/15/2017	8/10/2018	\$247,366.09		
1.00	St Croix Drive	83520	Council District 2	60	1/1/2016	9/11/2018	11/1/2019	\$244,587.86		
,	Aboite Meadows Drainage Improvements	83572	Council District 4	100	1/16/2017	5/15/2018	7/2/2019	\$1,186,172.51		
•	Harrison Street & Columbia Street Stormwater Improvements	83631	Council District 4	65	10/11/2017	7/10/2018	6/18/2019	\$1,051,500.00		
	Hemlock Lane Stormwater Improvements	83634	Council District 1	85	12/1/2017	6/5/2018	11/20/2018	\$136,743.00		
.,					<u>-</u>	STORM		\$4,675,130.38		
						GRAND TOTAL UTILITIES				
		GRAND T	\$308,657,308.00							

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**GRAND TOTAL MINUS TUNNEL** 

## Accepted & Change Order in 2018

BOW Accept	Work Order#	Project Name (Distribution)	Council District	Contractor	Total Construction Contract		Total Work Allowance			Total Change Order	Change Order % of Total	True change from Const. Quantity portion of bid
1/9/2018 1/16/2018 1/23/2018 1/23/2018 1/30/2018 3/20/2018 3/6/2018 3/20/2018	66236 76395 76318 76386 83510 75960 83517 66484	State & Hobson Wildmere (CSO017) Brick Sewer Emergency Repair Wet Weather Pond 1 & 2 Gate Improvement Wheelock Road Force Main Extension Hessen Cassel & Crestmont & Commercial Rd. Storm Wheelock Road Lift Station Warsaw Street (4800 Block) Drainage Improvements California Road WME	1,2 5 2 1/Out 6 Out 6 3	All Star Construction Lawnscape Lawn Maintenance Mason Engineering S & S Directional Boring Haskins Underground Underground Contractors Lawnscape Lawnscape Site Development	* * * * * * *	2,034,220.00 36,225.00 220,000.00 72,527.50 109,235.00 249,250.00 192,960.62 285,170.00	\$ \$ \$ \$ \$ \$	50,000.00 30,000.00 10,000.00 15,000.00 10,000.00 15,000.00	\$ \$ \$ \$ \$ \$ \$	164,877.81 (19,869.00) (10,897.00) (9,830.50) (1,407.30) 2,469.20 (20,412.00)	8.11% 0.00% -9.03% -15.02% -9.00% -0.56% 1.28% -7.16%	10.563% 0.000% 4.605% -1.237% 4.732% 3.447% 6.462% -1.898%
					\$	3,199,588.12	\$	140,000.00	\$	104,931.21	3.28%	7.655%
6/5/2018 4/17/2018	76078 83451	St Joe Interceptor Repair Wyandotte Drive Storm Improvement	Out 2	Wisel Excavating Ironclad Excavating	\$	88,471.90 345,174.75	\$	10,000.00 10,000.00	10.74	11,323.25 (22,524.23)	12.80% -6.53%	24.102% -3.628%
4/10/2018 4/10/2018	76324 76087	WPC Plant Boiler & Heat Exchanger Improvements CSO 61/62 Outfall Becketts Relief Interceptor Phase1 Wetland	City 1	Project Design & Piping  Dunigan  Environmental Remediation	\$		\$ \$	30,000.00 100,000.00	\$	(26,803.98) (205,312.52)	-2.31% -3.00%	0.275% -1.537%
4/24/2018	76192 83576	Restoration 3727 W. State Storm Sewer Replacement	3	Contractor Lawnscape Lawn Maintenance	\$	136,832.00 45,856.25	\$	10,000.00 5,000.00	\$	(2,230.00) (5,378.40)	-1.63% -11.73%	5.678% -0.825%
5/15/2018 6/5/2018	76189 66661 76242 76351	Digesters #3 & #4 Improvements 2017 Plant Filter Renovations WPC Plant Pond 2&3 Sweetwater Pump Station WPCP Loker Room Phase 2	City City All All	Ottenweller Contracting S & S Filter Mason Engineering C3 Construction Services	\$ \$ \$	141,000.00	\$ \$ \$	75,000.00 5,000.00 85,000.00 5,000.00	\$	156,480.39 (3,767.87) (85,491.85) (8,034.28)	2.44% -2.67% -5.48% -6.16%	3.603% 0.874% -0.032% -2.325%
6/19/2018 6/26/2018 5/15/2018	66705 76344 76376	Carbon Slurry Piping Improvements WPCP Pond # MCC Improvements WPCP Pond 3 Junction Vent	City City City	Mason Engineering Shambaugh & Son Ottenweller Contracting	\$	25,777.00 79,900.00	\$	5,000.00 5,000.00 5,000.00	\$	(5,000.00) (2,350.00) (8,475.32)	-19.40% -2.94% -11.09%	0.000% 3.317% -4.548%
					\$	17,071,123.70	\$	350,000.00	\$	(207,564.81)	-1.22%	0.834%
7/17/2018 7/31/2018 8/28/2018 9/11/2018	66300 76484 75820 76283	Rudisill- Warsaw Area Water Main Replacement GE/Wall Street Combined Sewer Emergency Repair GS & Junk Ditch Sewer Force Main East Network Ring Improvements	6 5 4 All City	Midwest Trenchless Services Lawnscape Fleming Excavating Pinpoint Directional Drilling	\$ \$ \$			50,000.00 100,000.00 5,000.00 155,000.00	\$ \$ \$ \$	(2,462.06)  (107,190.63) 3,951.00 (105,701.69)	-0.12% 0.00% -2.83% 6.92%	2.280% 0.000% -0.190% 15.682%
10/2/2018	76454 76113	Puff Road Septic Elimination Lakeside Sewer Separation	Out 2	TE Ironclad Excavating	\$		\$		\$	(15,726.32) (49,485.66)	-16.58% -1.54%	-11.308% 0.171%
10/9/2018 10/16/2018	76293 83585 83452 76384 76223	Flaugh Road Phase 2 Septic Elimination Gates Drive Levee Repairs Phase 2 Miscellaneous Storm Improvements 3600 Block Leesburg Road Septic Relief 2016 CIPP #1 Small & Med	Out 4 3&2 3	Rothenberger Companies TE Bunn Excavating Lawnscape Site Development Insituform Technologies	\$ \$ \$ \$	203,152.00 38,940.00 106,854.00	\$ \$ \$	10,000.00 5,000.00 15,000.00	\$ \$ \$	(57,507.00) (4,718.00) 2,758.00 (6,159.60) (179,285.00)	-28.31% -12.12% 2.58% -8.82% -9.35%	-23.385% 0.724% 16.619% -3.093% -8.826%
			,,		\$	5,652,696.86		104,000.00		(310,123.58)	-5.49%	-3.646%
				2018 Totals	\$	31,920,172.05	\$	749,000.00	\$	(518,458.87)	-1.62%	0.722%