### Avon Lake Board of Municipal Utilities

### **AGENDA**

For

Tuesday

March 1, 2016

6:30 PM

- 1. Call to Order
- 2. General Matters
  - A. Approve Minutes
  - B. Public Speakers (3 minutes each)
  - C. Correspondence
- 3. Expenditures
- 4. Collection System Evaluation
- 5. SIP Water Tower Amendment
- 6. Informational Items
  - A. Reports/Updates
    - 1) Homeowner Lateral Financing Program
    - 2) OWDA Interest Rate Buy-Down
    - 3) Chairman/Committee/Member Reports
    - 4) CUE Report
  - B. Miscellaneous
- 7. Public Speakers
- 8. Adjourn

# Board of Municipal Utilities Work Session Minutes February 16, 2016 201 Miller Road Avon Lake, Ohio

The work session was called to order at 6:05 PM.

Present: Mr. Berner, Mr. Dzwonczyk, Mr. Rickey, Mr. Rush, and Ms. Schnabel.

Also present: Mayor Zilka (left at 7:10 PM), Edward St. John, Chief Utilities Executive Danielson, Chief of Utility Operations Eberle, and WPCC Manager Baytos.

### Overview of WPCC Rehab Project

Ed St. John of CDM Smith presented to the Board an overview of the Water Pollution Control Center rehabilitation project, indicating how virtually every part of the plant will be affected. He indicated the project should be advertised for bids within a few weeks, with bid opening in early April. Members asked about the potential for interested bidders, and Mr. St. John stated that several contractors are interested in the work. Members also inquired about the potential areas where there were the most risks for problems during construction and asked to make sure that those areas received additional focus to help reduce risks.

#### Other Business

The CUE asked members to ask their questions about the WPCC Bidding and Out-of-Scope Services so that Mr. St. John would be able to respond. Members inquired about the personnel costs for bidding services. Mr. St. John indicated that due to the size and complexity of the project, all work associated with bidding (addenda, bid review, etc.) would require the review of all engineering disciplines. Therefore, to reduce chances for change orders during the project, CDM Smith worked with staff to arrive at a budget that they collectively believed best balanced price for bidding services with the potential price for project-related change orders.

Members expressed concern about the overall 5-year cost of the Avon Lake Regional Water capital program and stated that staff should be cognizant that Board members are leery about taking on additional capital expenses over and above those already considered. Members also requested that staff be able to clearly define what customers will be able to expect as outcomes of these capital improvements.

The work session adjourned at 7:30PM.

Approved March 1, 2016

John G. Dzwonczyk, Chairman

Todd A. Danielson, Clerk

### Board of Municipal Utilities Regular Meeting Minutes February 16, 2016 201 Miller Road Avon Lake, Ohio

#### Call to Order - Roll Call

The meeting was called to order at 7:35 PM.

Present: Mr. Dzwonczyk, Mr. Rush, Mr. Rickey, Mr. Berner and Mrs. Schnabel.

Also present: Chief Utilities Executive Danielson, Chief of Utility Operations Eberle, WPCC Manager Baytos.

### **Approve Minutes**

Chairman Dzwonczyk presented the minutes of the February 2, 2016 meeting and with no changes, additions or corrections noted, ordered the minutes to stand and be distributed as presented.

### **Public Speakers**

None.

### Correspondence

None.

### **Expenditures**

Following review of expenses dated February 16, 2016 for funds and amounts as follows, Mr. Rickey moved, Mr. Rush seconded, that all be approved and paid per budget:

Water Fund 701	\$ 232,725.41
Wastewater Fund 721	\$ 195,896.18
MOR Fund 703 ETL1	\$ 180,048.32
MOR Fund 762 ETL2	\$ 272,106.25
LORCO Fund 749	\$ 38,975.48
Sewer Construction 724	\$ 48,374.00

Ayes: Dzwonczyk, Berner, Rickey, Rush, Schnabel

Nays: None Motion carried.

### WPCC Bidding and Out-of-Scope Services

CDM Smith is essentially complete with the design for the Water Pollution Control Center (WPCC) rehabilitation. Staff asked CDM Smith to prepare a scope of work for

bidding services including preparing bidding documents, responding to questions and issuing addenda, and bid analyses and has negotiated a price (\$73,870) staff believes is fair. Following much discussion and per staff's explanation and resolve, Mrs. Schnabel moved and Mr. Rush seconded to authorize the CUE to execute the amendment with CDM Smith for bidding and additional design services for \$228,327.

Ayes: Dzwonczyk, Berner, Rickey, Rush, Schnabel

Nays: None Motion carried.

#### **Land Purchase**

At the May 19, 2015 meeting, staff informed the Board that NRG agreed to sell a small parcel of land north of the WPCC for construction of the new influent pumping station at an appraised price of \$95,000. The land sale agreement has finally been approved by all parties' legal counsels. This parcel is necessary to construct the new influent pumping station and complete the WPCC rehabilitation/upgrade project (part of our Water Quality Enhancement strategic initiative). After concerns by the Board were answered Mr. Rickey moved Mr. Rush seconded to authorize the CUE to execute the land sale agreement with NRG to purchase an approximately 0.5 acre parcel north of and adjoining the WPCC property for a sum of \$95,000.

Aves: Dzwonczyk, Berner, Rickey, Rush, Schnabel

Nays: None Motion carried.

### Reports/Updates

Homeowner Lateral Financing Program

The possibility of a homeowner lateral financing program was initially discussed at the Board's last meeting. The possibility is receiving a lot of interest and was discussed at the February 11, 2016 Sewer Committee meeting. Staff has met with the Law Director and Finance Director to discuss ways of working with Ohio EPA to provide help to Avon Lake Residents to comply with this program. After extensive discussions and concerns by the Board voiced and documented it was determined that the CUE will work to develop a program that is legal, assures repayment of any moneys loaned, is not overly burdensome of staff resources, and is desired by customers.

F-750 Scheduled for Completion

Chairman Dzwonczyk, Mayor Zilka, Rick Kasten, and Todd Danielson were provided a tour of the Ford plant and saw, as it was about to roll off the assembly line, the 2016 Ford F-750 cab and chassis that the utility ordered to be a new dump truck for the organization. The truck will still need to be painted and a box installed.

Mull/Norman Information Meetings

The final Mull/Norman information meeting is scheduled for February 18, 2016. Note that during the week of February 29, 2016, Lake Road will be closed at Mull to allow connection of the new sanitary sewer to the Lake Road interceptor. People will be notified about the impending closure with signs posted on Lake Road, a piece in *The Press*, and postings on our website and Facebook page.

Chairman/Committee/Members Reports

Chairman Dzwonczyk reported attending the Sewer Committee Meeting. He reported that the Sewer Committee is helping to facilitate the approval of our loan process.

Mr. Rickey met with CUE Danielson to discuss LORCO. Mr. Rickey reported he was unable to attend the last LORCO meeting and will be unable to attend the March 1 meeting as well.

Mrs. Schnabel reported the Environmental meeting was moved from last week to this week and she will be unable to attend.

Mr. Berner would like CUE Danielson to draft a comparison of a 20 year 0% interest loan with a 30 year low interest loan.

Mr. Rush voiced his interest in the Finance Director's role with Avon Lake Regional Water and requested it be a topic of discussion at the next work session.

### CUE Report

CUE Danielson will present to Council at the CCM Meeting tonight about our recent wastewater rate changes.

CUE Danielson also reported the Elyria interconnection was proceeding smoothly and hopes to provide the Board with a draft agreement at the March 15, 2016 Board meeting.

CUE Danielson also elaborated on Avon Lake Regional Water's Sewer Separation project. Staff will be working with Brown and Caldwell to provide a scope of work for the 45s. CUE Danielson believes he will be asking the Board to hire a consultant in approximately 4-6 weeks.

### Adjourn

As there was no further business, Mr. Berner moved, Mr. Rickey seconded, that the meeting adjourn at 8:23 PM.

Ayes: Dzwonczyk, Berner, Rickey, Rush, Schnabel

Nays: None Motion carried.

Approved March 1, 2016

John G. Dzwonczyk, Chairman

Todd A. Danielson, Clerk

### Avon Lake Regional Water MEMORANDUM

To:

**Board of Municipal Utilities** 

From:

**Todd Danielson** 

Subject:

Agenda Items – March 1, 2016

Date:

February 26, 2016

<u>Item 4</u>: Collection System Evaluation – TAD

Brown and Caldwell has been Avon Lake Regional Water's partner regarding the Avon Lake sanitary and combined sewer system, having prepared the 2004 Long-Term Control Plan (LTCP)—the document approved by Ohio EPA that lays out how Avon Lake Regional Water would migrate from a combined sewer community to one with no more combined sewer overflows into Lake Erie. Additionally, Brown and Caldwell is the firm responsible for creating and updating our sanitary sewer model.

With the most recent update to the sanitary sewer model in 2014, significant wet weather flows were identified in the southern half of the collection system. During 2015, staff was able to identify some of the causes of the flows and address them. However, much more still exists.

Staff has worked with Brown and Caldwell to develop a 5-part project that will help to:

1. Determine how much water the system collects during normal conditions and storm events and compare that to system capacities.

2. Determine how much additional water is prevented from entering the system through the

lateral separation program.

- 3. Update the sewer model to include the Walker Road Sewer (It previously exclusively focused on the Lake Road Sewer.) and predict what needs to be done in order to comply with Ohio EPA requirements to end combined sewer overflows.
- 4. Analyze options for addressing the combined sewer in the 45s.
- 5. Recommend areas for more intensive investigations regarding clean water entering the sanitary sewer.

The scope of work is attached and addresses several needed items. First, the project will help us with our on-going need to identify sources of clean water entering the sanitary sewer so that we can address them. Second, it will help us determine how well the lateral separations are working and help predict whether offline storage will be necessary in order to prevent sewer overflows during average years. Third, it will help determine the most appropriate approach for addressing the 45s. Fourth, it will provide the basis for further discussions with Ohio EPA regarding our attainment of the requirements set forth in our LTCP.

The Brown and Caldwell study will help us achieve the sanitary surcharge abatement component of our Water Quality Enhancement strategic initiative. In making this decision, the Principles that would help guide the Board are:

- ♦ Maintain existing assets, while investing in infrastructure that will take us into the future.
- Exercise fiduciary responsibility.

Board of Municipal Utilities Write-Up for March 1, 2016 Page 2 of 3

#### Recommended motion:

I move to authorize the CUE to execute an agreement with Brown and Caldwell for a collection system evaluation for a not-to-exceed fee of up to \$425,000, which includes a contingency over and above the currently proposed price that allows the CUE to authorize additional flow monitoring or complete related, but currently out-of-scope work.

### Item 5: SIP Water Tower Amendment – TAD

Staff has worked with MWH Constructors to negotiate and agree upon an amendment to the current Storage Improvements Project to allow MWHC to construct a three-million-gallon elevated storage tank on our property north of Walker Road between Miller and Avondale. The agreed upon amendment cost is \$8,093,210, which includes a 5% contingency (see attached). The same terms and conditions apply to this amendment as apply to the original contract. MWHC is incentivized to not use the contingency because contingency remaining at the end of the project will be shared between MWHC and us. The first 1% of remaining contingency will be split 50:50. The second 1% of contingency will be split 75% to us and 25% to MWHC. The remaining contingency will be split 90% to us and 10% to MWHC.

With approval of the amendment by the Board, the CUE will submit the loan documents to Ohio EPA. With the 20-year, 0%-interest loan, debt service for the water tank will be a little over \$400,000 per year, which is approximately \$6 per year per customer.

The water tower helps address our Water Supply Resiliency & Reliability strategic initiative. In making this decision, the Principles that would help guide the Board are:

- Provide quality, affordable water services.
- ♦ Maintain existing assets, while investing in infrastructure that will take us into the future.
- Exercise fiduciary responsibility.

#### Recommended motion:

Pending Ohio EPA Ioan approval, I move to authorize the CUE to execute the amendment to the CMAR contract with MWH Constructors for \$8,093,210.

### Item 6A1: Homeowner Lateral Financing Program - TAD

Staff continues to investigate the possibility of implementing a homeowner lateral financing program. On February 24, 2016, the CUE and the Law Director spoke with legal counsel for Ohio EPA and OWDA and learned about legal precedent that allows Avon Lake Regional Water to loan money to private individuals in order to make the required improvements to their lateral(s).

With confirmation by the Board, we will develop a program to allow customers to borrow money through Avon Lake Regional Water and repay it through wastewater billing. The CUE requests input regarding timing of implementation. Loan moneys from Ohio EPA would not be available until 2017. However, there could be several individuals that would want to partake in the program in 2016 due to the Mull-Norman and Fairfield-Brookfield projects initiating. With the Board's support, the program could be implemented relatively quickly using Avon Lake Regional Water funds to initially loan to these individuals. Ohio EPA cannot guarantee issuance of the loan at this point. However, there is a high likelihood that the loan would be authorized next year and that these initial loans issued to individuals by Avon Lake Regional Water would be able to be included in the Ohio EPA WPCLF loan.

Board of Municipal Utilities Write-Up for March 1, 2016 Page 3 of 3

<u>Item 6A2</u>: **OWDA Interest Rate Buy-Down** – *TAD* 

Earlier this week, we received notice from OWDA that they have implemented an interest rate buy-down program that reduces to 4% the interest rate of every loan we have with them that is currently greater than 4%. Six of our loans qualify for the rate reduction and will amount to an interest savings of \$409,704.25 over the life of the loans. This will save our Water Fund \$58,684.62, our Wastewater Fund \$124,061.45, and the LORCO Fund \$226,958.18.

### Avon Lake Municipal Utilities Water Fund 701 Expenses March 1, 2016

				<del></del>
	Name	Amount	Memo	Account
	Mar 1, 16			
1.		55,924,05	Salaries P/R#5 02/08/16-02/21/16	701 5-180 7-102
2.			PartTime P/R#5 02/08/16-02/21/16	701 5-180 7-102
3.		4.249.12	Overtime P/R#5 02/08/16-02/21/16	701 5-180 7-105 701 5-180 7-106
4.		10.00	1 Employee Meal Allowance-LS	701 5-180 7-100 701 5-180 7-200
5.	<b>_</b> . `	10.00	1 Employee Meal Allowance-LS	
6.	14 1 14 1 4	10.00	1 Employee Meal Allowance-LS	701 5-180 7-200
7.	· ·	3 291 43	Med Mutual Payment 2/17/16	701 5-180 7-200
8.		1 532 16	Med Mut Opt-Out P/R #4	701 5-180 7-203
9.	** ** **	1,002.10	Med Mutual Payment 2/23/16	701 5-180 7-203
10.	* * * * * * * * * * * * * * * * * * *	-1,700.91	Med Mut Emp Contrib D/D #4	701 5-180 7-203
	PERS	10 476 66	Med Mut Emp Contrib P/R #4	701 5-180 7-203
12.	Medicare	19,470.00	PERS - January 2016 Wages	701 5-180 7-209
12.	PERS		Medicare - P/R#4 02/07/16	701 5-180 7-212
	Avon Lake Printing	3,331.00	PERS Pickup - January 2016 Wages	701 5-180 7-219
		270.00	Door Hangers-EW	701 5-180 8-601
	Avon Lake Printing	33.50	1/2-Display Signs-EW	701 5-180 8-601
	FriendsOffice	480.02	Office Supplies-KK/LS	701 5-180 8-601
17.		500.00	1/2-Postage for Meter-LS	701 5-180 8-601
	U.S. Bank	381.41	1/2-Lease Pmt-Ricoh Copiers-TAD	701 5-180 8-601
	Jones Chemicals Inc.		6 Tons Chlorine-SH	701 5-180 8-602
	USALCO		74.37 Tons Alum-SH	701 5-180 8-602
	Discount Drug Mart	20.98	Maintenance Supplies-LS	701 5-180 8-603
	Eberle, Rick	52.97	Reimburse Petty Cash-LS	701 5-180 8-603
	Grainger Inc.	589.10	Maintenance Supplies-RK/SH	701 5-180 8-603
	GVS Safety Supplies, Inc.	497.85	Maintenance Supplies-SH	701 5-180 8-603
	Home Depot	349.00	1/2-Maintenance Supplies-RK	701 5-180 8-603
26.		5.00	Stock Supplies-RK	701 5-180 8-603
27.		531.20	Maintenance Supplies-SH	701 5-180 8-603
28.	Lakeside Supply Co.	138.18	Maintenance Supplies-SH	701 5-180 8-603
29.	Pollardwater	539.81	1/2-Maintenance Supplies-RK	701 5-180 8-603
30.	Swift First Aid Service		Svc FirstAid Cabinets@WFP-LS	701 5-180 8-603
	Swift First Aid Service	32.70	1/2-Svc FirstAid Cabinets@201Miller-LS	701 5-180 8-603
	Trico Oxygen Company	156.97	Maintenance Gases-RK/SH	701 5-180 8-603
33.	Active Plumbing Supply		Maintenance Supplies-RK	701 5-180 8-603
	Dickson	180.00	Repair/Calibration-RK	701 5-180 8-607
	Grainger Inc.		Equipment Repair-SH	701 5-180 8-607
	HD Supply Waterworks, Ltd.	1 856 40	Equipment Repairs-SH	701 5-180 8-607
	McMaster-Carr Supply	229.71	Equipment Maintenance-SH	
	Trico Oxygen Company		Repair Parts for Welder-RK	701 5-180 8-607
	Roberts Surveying Supplies		1/2-Repair Locator-JRG	701 5-180 8-607
	HD Supply Waterworks, Ltd.			701 5-180 8-607
41	Harold Archer & Sons		Water Distribution Supplies-RK	701 5-180 8-612
42	Alloway		1/2-74.61 Tons Stone-RK	701 5-180 8-612
43	Jade Scientific Inc.		Monthly Analysis-SH	701 5-180 8-615
	Scientific Methods Inc.		Lab Supplies-SH	701 5-180 8-615
			Monthly Testing-SH	701 5-180 8-615
	Columbia Gas	25.74	Gas Svc@WFP Lab 1/20/16-2/18/16-SH	701 5-180 8-700
	Columbia Gas	509.07	Gas Svc@WFP Garage 1/20/16-2/18/	701 5-180 8-700
47.	Columbia Gas	28.84	Gas Svc@WFP Aux 1/20/16-2/18/16-SH	701 5-180 8-700
48.	Illuminating Co.		Elect Svc@Wa Plant 1/19/16-2/17/16	701 5-180 8-700
49.	Time Warner Cable		1/2-Internet Svc 2/14/16-3/13/16-RRE	701 5-180 8-700
50.	Columbia Gas		Gas Svc@Wa Plant 01/20/16-02/18/16	701 5-180 8-700
• • • •	AWWA	182.00	AWWA Membership-G.Yuronich-LS	701 5-180 8-701
<b>52</b> .	Brohl & Appell, Inc.	7,800.00	Service Agreement-SH	701 5-180 8-701
53.	CT Consultants	6,840.00	Prof Svc -Hydraulic Model Conv-TAD	701 5-180 8-701
54.	Rickey, David J.	35.00	Reimburse for OEC Fin Disclosure Fili	701 5-180 8-701

### Avon Lake Municipal Utilities Water Fund 701 Expenses March 1, 2016

Name	Amount	Memo	Account
5. Fuelman of Northern Ohio	269.90	1/2-Fuel for Vehicles 2/1/15-2/14/16-LS	701 5-180 8-707
Advance Auto Parts	94.30	1/2-Truck Parts-RK	701 5-180 8-707
- AutoZone	47.23	1/2-Misc Truck Parts-RK	701 5-180 8-707
Murphy Tractor & Equipmen	296.22	1/2-Msic Truck Parts-RK	701 5-180 8-707
Vasu Communications, Inc.	26.75	1/2-Service Radios-RK	701 5-180 8-707
ounce top industries ric.	169.24		701 5-180 8-708
I FR OCIVICE CO.	125.00	1/2-Inspect/Adjust Fire Door@201Mille	701 5-180 8-708
Oraniger IIIc.	240.00	Furnace Filters-SH	701 5-180 8-708
might Glass & Dool 261Aice	1,440.00	Repair Doors-SH	701 5-180 8-708
i dilikoi Ouppiy LLQ,	347.49	Building Maintenance-SH	701 5-180 8-708
riox ripe a cuppiy co.	76.91	Building Maintenance-SH	701 5-180 8-708
Opecu Externitiating Comp	30.00	1/2-Exterminating@201Miller-Feb 201	701 5-180 8-709
Firstmerit	74.43	Charge for Deposit Slips-LS	701 5-180 8-907
Mar 1, 16	153,378.56		

### Avon Lake Municipal Utilities Wastewater Fund 721 Expenses March 1, 2016

	Name	Amount	•	
		Amount	Memo	Account
4	Mar 1, 16 Wastewater Employees	E4 740 40	Calaria - D/D#F 00/00/40 00/04/40	
1.			Salaries P/R#5 02/08/16-02/21/16	721 5-190 7-102
2. 3.			PartTime P/R#5 02/08/16-02/21/16	721 5-190 7-105
			Overtime P/R#5 02/08/16-02/21/16	721 5-190 7-106
4.		10.00	1 Employee Meal Allowance-LS	721 5-190 7-200
5.		10.00	, ,	721 5-190 7-200
6. 7.		10.00		721 5-190 7-200
		10.00	1 Employee Meal Allowance-LS	721 5-190 7-200
8. 9.	Medical Mutual of Ohio	3,354.04		721 5-190 7-203
9. 10.		766.08		721 5-190 7-203
10.		1,739.37		721 5-190 7-203
12.		-1,691.82		721 5-190 7-203
13.	Dependent Health Care	600.00		721 5-190 7 <b>-</b> 203
		18,999.26	PERS - January 2016 Wages	721 5-190 7-209
14.	Medicare	8/4.29	Medicare - P/R#4 02/07/16	721 5-190 7-212
15.	PERS	2,132.83	PERS Pickup - January 2016 Wages	721 5-190 7-219
16.	ABC Equipment Rental	70.99	Employee Clothing-JRG	721 5-190 8-226
17.	Avon Lake Printing	33.50	1/2-Display Signs-EW	721 5-190 8-601
18.	FriendsOffice	236.57		721 5-190 8-601
19.	Neofunds by Neopost	500.00		721 5-190 8-601
20.	U.S. Bank	381.42		721 5-190 8-601
21.	Bonded Chemicals Inc.	6,897.60		721 5-190 8-602
22.	Discount Drug Mart	14.97	F1	721 5-190 8-603
23.	Eberle, Rick	116.50		721 5-190 8-603
24.	Grainger Inc.	803.43		721 5-190 8-603
25.	Home Depot	349.00	, , , , , , , , , , , , , , , , , , ,	721 5-190 8-603
26.	McMaster-Carr Supply	677.63		721 5-190 8-603
27.	Pollardwater	539.80		721 5-190 8-603
28.	Swift First Aid Service	76.05		721 5-190 8-603
29.	Swift First Aid Service	32.70	1/2-Svc FirstAid Cabinets@201Miller-LS	721 5-190 8-603
30.	Trico Oxygen Company	67.54	Maintenance Gases-RK	721 5-190 8-603
31.	ABC Equipment Rental	20.75	Maintenance Supplies-JRG	721 5-190 8-603
32.	Applied Industrial Techn		Domestic Pump Repairs-RRE	721 5-190 8-607
33.	Trico Oxygen Company		Repair Parts for Welder-RK	721 5-190 8-607
34.	Roberts Surveying Suppli		1/2-Repair Locator-JRG	721 5-190 8-607
35.	Harold Archer & Sons	660.30	1/2-74.61 Tons Stone-RK	721 5-190 8-612
36.	Jones & Henry Labs Inc.		Mercury Testing-RRE	721 5-190 8-615
37.	Columbia Gas		Gas Svc@WPCC 12/18/15-01/02/16-SB	721 5-190 8-700
38.	GDF Suez		Elect Svc@WPCC 1/8/16-2/5/16-SB	721 5-190 8-700
39.	GDF Suez		Elect@Center Rd P.S. 1/8/16-2/4/16-RK	721 5-190 8-700
40.	Columbia Gas		Gas Svc@Center P.S. 1/20/16-2/18/16-RK	721 5-190 8-700
41.	GDF Suez	12,084.18		721 5-190 8-700
42.	Time Warner Cable		1/2-Internet Svc 2/14/16-3/13/16-RRE	721 5-190 8-700
<b>43</b> .	GDF Suez		Elect@Center P.S. 1/8/16-2/4/16-RK	721 5-190 8-700
44.	Interstate Gas Supply, Inc.		Gas @Sw Plant-January 2016-SB	721 5-190 8-700
45.	Time Warner Cable		Internet/Phone Svc 2/22/16-3/21/16-SB	721 5-190 8-700
46. 47	Caruso, George S.		Reimburse for Mileage-LS	721 5-190 8-701
47.	Tremco		Roof Maintenance Agreement-RRE	721 5-190 8-701
48.	Bramhall Engineering &		Prof.Eng.Svc-F.I.B.B. Project-JRG	721 5-190 8-701
49. 50	Republic Services		Sludge Disposal - January 206-SB	721 5-190 8-702
50.	Fuelman of Northern Ohio		1/2-Fuel for Vehicles 2/1/16-2/14/16-LS	721 5-190 8-707
51.	Advance Auto Parts		1/2-Truck Parts-RK	721 5-190 8-707
52.	AutoZone		1/2-Misc Truck Parts-RK	721 5-190 8-707
53.	Great Lakes Petroleum		337.1 Gals.Diesel Fuel-RK	721 5-190 8-707
54.	Murphy Tractor & Equip	296.21	1/2-Misc Truck Parts-RK	721 5-190 8-707

## Avon Lake Municipal Utilities Wastewater Fund 721 Expenses March 1, 2016

	Name	Amount	Memo	Account
56. 57.	Vasu Communications, I FLB Service Co. FLB Service Co. Speed Exterminating Co	250.00 125.00	1/2-Service Radios-RK Inspect/Adjust Fire Door@WPCC-RK 1/2-Inspect/Adjust Fire Door@201Miller-RK 1/2-Exterminating@201Miller-Feb 2016-RRE	721 5-190 8-707 721 5-190 8-708 721 5-190 8-708
	Mar 1, 16	222,295.90		

### Avon Lake Municipal Utilities MOR Fund 703 Expenses - ETL1 March 1, 2016

Name	Amount	Memo	Account
Mar 1, 16			
GDF Suez	9,897.36	Elect@Moore P.S. 1/10/16-2/9/16-RRE	703 5-180 8-703
2. Illuminating Co.		Elect@Moore P.S. 1/10/16-2/9/16-RRE	703 5-180 8-703
Illuminating Co.		Elect@Moore/RR 12/8/15-1/6/16-RRE	703 5-180 8-743
· Illuminating Co.		Elect@Lear/Krebs 12/10/15-1/9/16-RRE	703 5-180 8-743
Direct Energy		Elect Svc@Moore PRV 1/10/16-2/8/16	703 5-180 8-743
Mar 1, 16	16,216.84		

### Avon Lake Municipal Utilities MOR Fund 762 Expenses - ETL2 March 1, 2016

Name	Amount	Memo	Account
Mar 1, 16 J. GDF Suez Z. Illuminating Co. B. Grainger Inc.	7,557.30	Elect@Moore P.S. 1/10/16-2/9/16-RRE Elect@Moore P.S. 1/10/16-2/9/16-RRE Sump Pumps-SH	762 5-180 8-70 762 5-180 8-70 762 5-180 8-74
Mar 1, 16	14,827.93		

### Avon Lake Municipal Utilities LORCO Fund 749 Expenses March 1, 2016

Name	Amount	Memo	Account
Mar 1, 16 I. Craun-Liebing Company I. Eberle, Rick I. RLCWA I. RLCWA I. Shamrock Mar 1, 16	471.97 50.69 83.64	Test/Repair Grinder Pumps-RK Reimburse Petty Cash-LS Wa Used@Tri-Plex 1/4/16-2/3/16-RRE Wa Used@Four-Plex 1/4/16-2/3/16-RRE Paper Stock/Envelopes-RRE	749 5-190 8-603 749 5-190 8-603 749 5-190 8-700 749 5-190 8-848

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February 26, 2016



Mr. Todd Danielson Chief Utilities Executive Avon Lake Regional Water 33370 Lake Road Avon Lake, Ohio 44012

031080-013

Subject:

**Proposal for Collection System Evaluation** 

Dear Mr. Danielson:

As requested, Brown and Caldwell has prepared this proposal to evaluate the following issues discussed on the collection system and make recommendations based on the findings and in accordance with the requirements of the Long Term Control Plan.

Brown and Caldwell developed the CSO LTCP for Avon Lake Regional Water (ALRW) several years ago and most recently in 2009 and 2014 provided an update on the ALRW's collection system performance including identifying the effectiveness of separation completed at that time to be an average of approximately 85 percent. While separation conducted up to that point had resulted in a significant reduction in wet-weather flow, surcharging of sewers was still occurring during some wet-weather events. Some of the causes of this remaining flow are likely caused from private property sources which can contribute significant sources of I/I during wet-weather events.

ALRW has continued with sewer separation since the last update and has resulted in areas where excess flows have continued to cause surcharging during more intense wet weather conditions. Downstream surcharge of the Lake Road Interceptor is occurring from the increased capacity of the Center Road Pump Station (CRPS) discharge.

The most recent modeling indicated a large contribution from I&I in the separate sewer area. The I&I situation further stresses the collection system and plant during wet weather.

This proposed scope will include updating the collection system to incorporate both the separate sewer system and the combined system so that an analysis of the infiltration and inflow (I&I) issues can be compared comprehensively with treatment plant impacts as well as the combined sewer system.

Based on the collection system evaluation BC will re-evaluate the Long Term Control Plan and make recommendations on necessary future improvements.

The proposed work would serve to accomplish the following:

- Flow monitoring will be performed in support of the existing system model.
- Update the sewer system model with recent system improvements and findings in both the separate and combined area.
- Update projections for sewer system flows throughout the collection system to identify the following:

- Current system flows and capacity
- Flow reductions from recent separation projects (specifically the Belmar and Moorewood areas); provide update to separation effectiveness in terms of percentage removal
- Update estimates of flow reductions from future improvements based on revised separation methods and infiltration and inflow (I/I) removal, and
- Estimate future storage estimates if separation is augmented with such facilities
- Evaluate the D10 Area for separation or storage based on modeling results and estimated costs. This would be performed as an early action effort due to the timing of this project.
- Evaluate effectiveness of LTCP improvements in relation to anticipated goals of the plan to determine accomplishments to date and through 2020. Identify residual wet weather flows after 2020.
- Recommend areas for more intensive investigations, where required.

The following scope of work will provide a framework for continued monitoring and modeling to assess the collection system performance and update the collection system model to aid in assessing recent and future improvements to the collection system.

### Scope of Work

The scope of work for the project is outlined below.

### Task 1 - Flow Metering

We recommend additional flow metering for further analysis of the collection system. Based on discussions with ALRW, it is recommended that additional flow data be collected as soon as practical to capture springtime conditions of 2016 and into the summer period. BC will engage a subconsultant for the flow metering and associated rain gauges for this work. For the purpose of this proposal it is recommended to install and maintain a total of up to 25 flow meters and 2 rain gauges for updating of the model. The flow metering and rain gauges will be utilized in the following:

- 1. Updating the current model, including the combined and separate areas. This will utilize the current model built by BC with additional information added as needed for the analysis.
- 2. Evaluation of the D10 area to determine the volume of flow that would need to be stored vs the amount of flow that will be reduced due to sewer separation.
- 3. Measure the effectiveness of the sewer separation in the Belmar and Moorewood areas.

### Task 2 - Model Update

### Calibration and Model Extension

the newly collected flow meter data will allow for further refinement of the model, and to extend the model into the separate sewer area so that I&I effects can be characterized. For the purpose of this proposal it is recommended that a total of up to 25 flow meters

be installed to collect updated data at historical metering locations as well as new locations. These new locations will include areas where additional surcharging has occurred, areas where recent separation has been implemented (such as the Belmar and Moorewood separated areas), the D10 cottage area, and areas in the separate sewered area that were previously metered. BC will coordinate with Avon Lake Regional Water to determine the final meter locations, but will generally include the following:

- Approximately 10 to 12 meters in the combined area. This includes monitoring
  the Miller Road overflow, locations along the Lake Road Interceptor, and recently
  separated areas. Historical metering locations will be used where practical.
- Approximately 10 to 12 meters in the separate area. This includes flow to the WWTP and several meters along Walker Road and into upstream areas to identify I&I contribution.
- One sewer system meter where separation will occur in the D10 area: This will be placed in the vicinity of where future separation will occur to develop a baseline of flows prior to actual implementation of sewer separation.

In addition to flow metering, it is recommended that two additional rain gauges be installed to supplement current rain gauges (two) that are currently known to be measuring rainfall. This approach is consistent with the previous recommendations to monitor the collection system as progress is made implementing the system improvements.

The flow meters and rain gauges would be installed and maintained on a weekly basis for the duration necessary to collect adequate storm flow data for a variety of rain events. Ideally the rain events will include the following:

- Small storms: 2-3 events with rainfall totals of 0.2 0.5 inch and peak intensity of at least 0.25 in/hour
- Medium storms: 2 events with rainfall totals of 0.5 1 inch with peak intensity of ~0.5 in/hour
- Large storms: 2 events with rainfall totals of 0.75 1+ inch with peak intensity of ~0.75+ in/hour

Brown and Caldwell will determine locations where meters and rain gauges should be installed. Installation and meter maintenance will be conducted by Brown and Caldwell's subconsultant. Once the data is collected, it will be provided electronically on a biweekly basis to Brown and Caldwell for quality checks to determine if the data is adequate for use in the flow data assessment and model calibration update. Brown and Caldwell will provide an online data storage location for ease of upload of data.

It is recommended that the monitoring period be a minimum of three months long with an optional fourth month and should begin in March 2016. This will be important to capture spring conditions. It is important to note that the recent weather conditions may limit the amount of typical spring flows. Since seasonal variations influence the flow response, it will be necessary to measure over this timeframe.

At the end of each monitoring month we will evaluate the collected data and determine if continued monitoring is necessary. We will provide a recommendation to ALRW and, if necessary, request continuation with the monitoring.

#### Area D10 Evaluation

Brown and Caldwell will review the model projections early in the project for the D10 Area for estimating additional flow in the system if the area is not separated and for the reduction in flows if the area is separated. These projections will then be used to determine storage requirements for this area only. Brown and Caldwell will complete a cost analysis of separation versus storage based on the flow projections. The impact of the storage required will be included in the overall recommendations of storage for the collection system.

### **Model Projections and Report**

Upon completion of the model calibration the analysis of system performance will be completed. An update on the effectiveness of separation will be included similar to that provided in the 2009 report by areas where separation has been completed. The model will be run for annual average conditions as well as two design storms such as 10-year, and 25-year design storm events to identify system capacity issues for each of these recurrence interval storm flows. Once the flow estimates are updated, the result will be summarized in a report and provided to ALRW. The results of the report will address:

- Effectiveness of recent sewer separations and future separation as defined and anticipated by ALRW,
- Impacts of current system performance on peak flow within the collection system and overflow at the existing overflow locations,
- Future improvements and how they serve to reduce peak flow and resulting surcharge and overflow volume, and
- Storage volume estimates and locations in the system should ALRW need to consider storage in their program.

### Task 3 - LTCP Performance Evaluation and Report

Brown and Caldwell will review the model projections to develop a performance projection of the LTCP improvements. The D10 alternatives and the I&I issues will also be included in the system analysis so their impact on the overall performance of controlling flows to the lake can be summarized. A report will be completed that list the performance to date and summarizes projected performance for completion of the LTCP improvements. This will include a brief summary of the areas that have been separated and remaining private work that needs to be completed in order to achieve the anticipated storm flow reductions.

The report will also summarize any shortcomings of the LTCP improvements and the anticipated improvements that will be required to meet the initial goals of the LTCP.

### **I&I** Analysis for separate areas

Brown and Caldwell will use the model to evaluate the separate system to determine the impact of I&I on the treatment plant and other overflows. BC will present the findings to show the increased flows across the system. Recommendations will be compiled to address the following:

 How the flows will impact the total flow tributary to the treatment plant; plant capacity will be provided by the ALRW.

- Anticipated storage of flow required to prevent flooding and overflows in the system.
- I&I reduction approaches that ALRW can further pursue to reduce and control I&I in the collection system. These will be in the form of additional intensive system investigations to identify and reduce I/I.

### Task 4 - Meetings

We have assumed a total of five meetings with ALRW as outlined below:

- 1. Kickoff meeting/Workshop Review meter locations
- 2. Present initial model findings and results for recent separations for Belmar and Moorewood areas. Report on initial findings for the D10 Area.
- 3. Review and present initial LTCP update.
- 4. Present final model findings and recommend future steps ALRW should take to continue program.
- 5. Assist in presentation of results at Board meeting.

### Fee for Proposed Scope of Work

Brown and Caldwell proposes the above scope of work for a not to exceed fee of \$379,923 with an allowance for an additional flow monitoring month of \$40,000 as shown in Table 1. Note that the total cost includes evaluation of data from the three months of flow monitoring for spring of 2016. Actual flow monitoring would be conducted by a subconsultant as directed by BC.

Table 1. Cost Summary	1
Task	Not to Exceed Cost
Flow Metering	\$205,877
Model Update	\$65,766
LTCP Evaluation and Report	\$80,312
Meetings and Project Management	\$27,968
SUBTOTAL	\$379,923
Allowance – Additional Flow Monitoring Month	\$40,000
TOTAL	\$419,923

We appreciate the opportunity to continue to be of service. Should you have any questions please call me at 216.606.1301.

Very truly yours,

**Brown and Caldwell** 

Anthony J. Blanc, PE

**Cleveland Operations Manager** 

cc: Dan Davis, Project Manager, Brown and Caldwell

### Document 00 53 23 - GMP Amendment (CM at Risk Project)

State of Ohio Standard Requirements for Public Facility Construction

### **Agreement Exhibit D**

The State of Ohio, acting by and through the Contracting Authority and the CM enter into this Amendment as of the date set forth below to amend the Contract they entered into as of May 13, 2015 in connection with the Project known as:

**Project Number:** 

**Project Name:** 

**Storage Improvements Project** 

Owner:

City of Avon Lake, Board of Municipal Utilities

**Contracting Authority:** 

Todd Danielson, Chief Utilities Executive

Construction Manager ("CM"):

MWH Constructors, Inc.

### ARTICLE 1 - CONTRACT SUM AND RELATED ITEMS FOR THIS AMENDMENT

- 1.1 The Contract Sum is \$8,093,210.00, which is the sum of the estimated Cost of the Work, plus the CM's Contingency, plus the CM's Fee as follows:
  - 1.1.1 The estimated Cost of the Work is \$7,425,645.00, which includes all Allowances (if any) and Unit Prices (if any) defined through this Amendment, and is the sum of:
    - 1.1.1 CM's Construction Stage Personnel Costs in the amount of \$330,400, which is the not to exceed sum, per the Price Proposal;
    - **1.1.1.2** General Conditions Costs in the amount of \$273,042, which includes Bond at 0.6% and Builders Risk Insurance at 0.2% per the Price Proposal.
    - 1.1.1.3 All Work the CM proposes to provide through Subcontractors/Vendors in the amount of \$6,822,203.00;
  - 1.1.2 The CM's Contingency in the amount of \$371,282.00, which represents 5 percent of the above-identified Cost of the Work
    - 1.1.2.1 Notwithstanding Article 9 of the General Conditions, the Contingency Review Dates will be the dates on which the CM achieves the following activities identified in the Construction Progress Schedule attached as GMP Exhibit E:

Substantial Completion of Composite Elevated Tank (11-30-17)

- 1.1.3 The CM's Fee in the amount of \$296,283.00, which shall not exceed 3.8 percent of the sum of the above-identified Cost of the Work plus the above-identified CM's Contingency.
- 1.2 Recap of Contract Sum and Related Items:

Compensation Component Description (refer to complete description in the Section of this GMP Amendment referenced below)	Current Amount (before execution of this GMP Amendment)	Increase(Decrease) (amount added to or (deducted from) Current Amount)	Amended Amount (after execution of this GMP Amendment)
1.1 Contract Sum	23,323,313	\$8,093,210	\$31,416,523
1.1.1 Estimated Cost of the Work	19,972,865	\$7,425,645	\$27,398,510
1.1.1.1 Personnel Costs	1,188,677	\$330,400	\$1,519,077
1.1.1.2 General Conditions Costs	886,427	\$273,042	\$1,159,469
1.1.1.3 Subcontracted Work	17,897,761	\$6,822,203	\$24,719,964
1.1.2 CM's Contingency	2,496,608	\$371,282	\$2,867,890
1.1.3 CM's Fee	853,840	\$296,283	\$1,150,123

### **ARTICLE 2 - CONTRACT TIMES**

2.1 The Contract Times are the periods established in the following table for the achievement of the associated Milestones:

Construction Stage Milestone(s) to which Liquidated Damages apply	Contract Time	Projected Date (as of the date of this GMP Amendment)
Substantial Completion of all Work	971 days	December 31, 2017

**2.1.1** The projected dates listed under "Projected Date (as of the date of this GMP Amendment)" are provided only for convenient reference during the consideration and negotiation of this GMP Amendment. The durations listed under "Contract Time" define the Contract Times and take precedence over the projected dates.

### **ARTICLE 3 - LIST OF EXHIBITS**

- **3.1** This Amendment is based upon the following documents:
  - 3.1.1 Basis Documents attached as GMP Exhibit A;

This exhibit includes the Drawings Issued for Bid for SIP-8 (Including work shown for SIP-9&10 still to be finalized)

3.1.2 Assumptions and Clarifications attached as GMP Exhibit B;

This exhibit includes a complete list of the assumptions and clarifications made by the CM in the preparation of this Amendment. The exhibit clarifies the information contained in the Basis Documents and comprises documents related to assumptions to define price scope and changes made to the Basis Document to accommodate constructability change.

3.1.3 Project Estimate attached as GMP Exhibit C;

This exhibit includes a detailed estimate of the Cost of the Work which (1) allocates the cost of each of item of the Work to labor and materials/equipment organized by trade categories and (2) does not contain a lump-sum estimate for any item other than the CM's Preconstruction Services and the CM's Construction Services Personnel Costs. This exhibit is informational only. It is included to provide a tool to evaluate, analyze, and discuss the proposed Contract Sum.

- 3.1.4 Project Schedule attached as GMP Exhibit D;
- 3.1.5 Construction Progress Schedule attached as GMP Exhibit E;

Not applicable.

3.1.6 Staffing Plan attached as GMP Exhibit F;

This exhibit includes the CMs detailed plan for staffing the Project during the Construction Stage and an outline of the qualifications and experience of the CM's proposed project manager and proposed superintendent.

3.1.7 Subcontractor Work Scopes attached as GMP Exhibit G;

This exhibit includes a detailed scope-of-Work description for each anticipated Subcontract.

3.1.8 Scope of CM's Self-Performed Work attached as GMP Exhibit H;

We do not intend to self-perform any of the work packages.

3.1.9 Schedule of Allowances attached as GMP Exhibit I (if applicable);

This exhibit includes a complete list and detailed description of all Allowance Items with related measurement and payment terms.

3.1.10 Schedule of Unit Prices attached as GMP Exhibit J (if applicable);

Not applicable

3.1.11 Schedule of Alternates attached as GMP Exhibit K (if applicable); and

Not applicable

3.1.12 Schedule of Incentives and Shared Savings attached as GMP Exhibit L (if applicable).

This exhibit includes a detailed description of all performance incentives/bonuses applicable to the Work including related measurement/entitlement and payment terms.

### **SIGNATURES**

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the date set forth below:

MWH Constructors, Inc.	City of Avon Lake, Board of Municipal Utilities
Signature	Signature
Printed Name	Printed Name
Title	Title
	Date

### **END OF DOCUMENT**