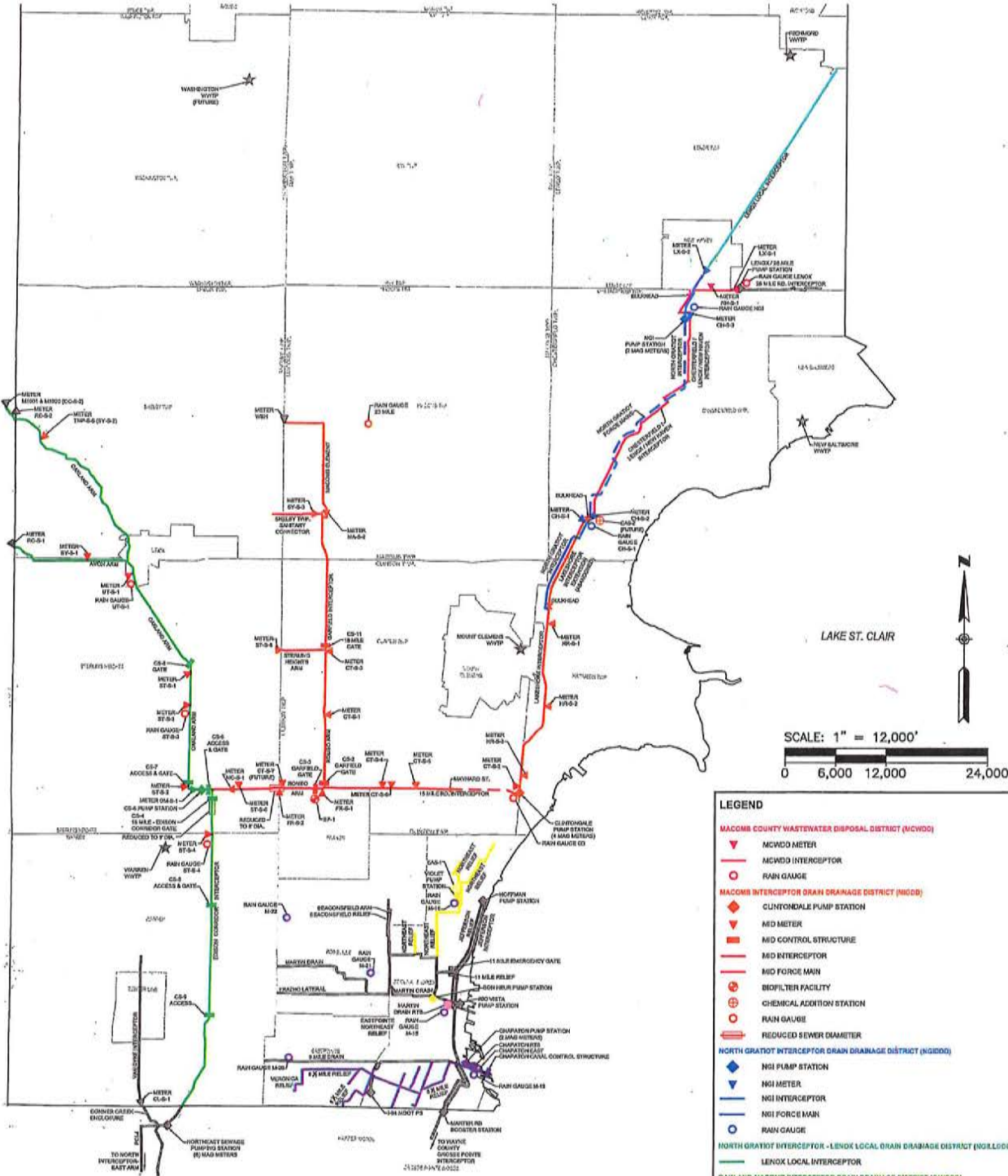


Miller
Santo
Klinefelt

EIGHT AND ONE-HALF MILE RELIEF DRAIN
INTRA-COUNTY DRAINAGE BOARD
AUGUST 21, 2017
10:00 A.M.
AGENDA

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for August 21, 2017	
3. Approval of Minutes for July 10, 2017	3
4. Public participation	
5. Progress Reports – Vincent Astorino	5
6. Presentation: Chapaton Capital Improvement Plan (CIP)/ Chapaton FY 2017-2018 Budget Maria Sedki, Fishbeck, Thompson, Carr & Huber, Inc. Vince Astorino, Macomb County Public Works Office	11
7. Consideration for approval of invoices (see attached)	31
8. Financial Report – Bruce Manning	49
9. Adjourn	

MACOMB COUNTY WASTEWATER SYSTEMS



Candice S. Miller
MACOMB COUNTY PUBLIC WORKS COMMISSIONER



- LEGEND**
- MACOMB COUNTY WASTEWATER DISPOSAL DISTRICT (MCWDD)**
 - MCWDD METER
 - MCWDD INTERCEPTOR
 - RAIN GAUGE
 - MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT (MIDD)**
 - CLONTONDALE PUMP STATION
 - MID METER
 - MID CONTROL STRUCTURE
 - MID INTERCEPTOR
 - MID FORCE MAIN
 - BIOFILTER FACILITY
 - CHEMICAL ADDITION STATION
 - RAIN GAUGE
 - REDUCED SEWER DIAMETER
 - NORTH GRATIOT INTERCEPTOR DRAIN DRAINAGE DISTRICT (NGIDD)**
 - NGI PUMP STATION
 - NGI METER
 - NGI INTERCEPTOR
 - NGI FORCE MAIN
 - RAIN GAUGE
 - NORTH GRATIOT INTERCEPTOR - LENOX LOCAL DRAIN DRAINAGE DISTRICT (NGILLDD)**
 - LENOX LOCAL INTERCEPTOR
 - OAKLAND-MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT (OMIDD)**
 - CS-6 PUMP STATION
 - OMID METER
 - OMID CONTROL STRUCTURE
 - OMID INTERCEPTOR
 - REDUCED SEWER DIAMETER
 - 8 1/2 MILE RELIEF DRAIN DRAINAGE DISTRICT**
 - CHAPATON WEST PUMP STATION
 - CHAPATON RETENTION TREATMENT BASIN
 - CHAPATON CANAL CONTROL GATE
 - 8 1/2 MILE INTERCEPTOR
 - RAIN GAUGE
 - MARTH SANITARY DIVERSION DRAINAGE DISTRICT (MSDD)**
 - MARTH DRAIN RETENTION TREATMENT BASIN
 - OTHER SYSTEMS**
 - PUMP STATION
 - METER
 - WWTP
 - INTERCEPTOR

An adjourned meeting of the Intra-County Drainage Board for the **EIGHT AND ONE-HALF MILE RELIEF DRAIN** was held in the Office of the Macomb County Public Works Commissioner, 21777 Dunham, Clinton Township, Michigan, on July 10, 2017, at 10:07 A.M.

PRESENT: Brian Baker, Acting Chair
Robert Smith, Member

ABSENT: Bryan Santo, Member

ALSO PRESENT: Karen Czernel, Deputy, Keith Graboske, P.E., Chief Engineer, Vincent Astorino, Engineer II, Evans Bantios, Engineer II, Anthony Forlini, Operations Manager, Richard Ives, Community Wastewater Services Manager, Bruce Manning, Financial Manager, Barbara Delecke, Administrative Services, Macomb County Public Works; Benjamin Aloia, Aloia & Associates; Chris Dilbert, Village of New Haven; Jared Beaudoin, City of Sterling Heights

The meeting was called to order by the Acting Chair, Brian Baker. The agenda was approved as presented.

Minutes of the meeting of June 12, 2017 were presented and approved, with the caveat that Mr. Smith was not present, on a motion by Mr. Smith, supported by Mr. Baker and unanimously carried.

The meeting was opened to public participation, then closed, there being no comments from the public.

Mr. Astorino stated that the SAW Grant is in the final stages with a completion date in August 2017. The grant will be approximately \$200,000 under budget.

A motion to receive and file the progress report update given by Mr. Astorino was made by Mr. Smith, supported by Mr. Baker and unanimously approved.

The Chair presented the invoices totaling \$52,737.93 to the board for review and approval.

A motion was made by Mr. Smith, supported by Mr. Baker to approve the invoices as presented.

Ayes: Smith, Baker
Nays: None

Motion approved.

The SRF and SAW Grant are both coming to a close. The Board will be asked to approve the 8 ½ Mile Budget in September for the Fiscal Year 10/1/17 – 9/30/18.

A motion to receive and file the financial report given by Mr. Manning was made by Mr. Smith, supported by Mr. Baker and unanimously carried.

The meeting was adjourned at 10:10 a.m. on a motion by Mr. Smith, seconded by Mr. Baker, and unanimously approved.



Brian Baker, Acting Chair
Macomb County Public Works Commissioner

STATE OF MICHIGAN
COUNTY OF MACOMB

I certify that the foregoing is a true and correct copy of proceedings taken by the Intra-County Drainage Board for the Drainage District shown on the attached set of minutes, on July 10, 2017, the original of which is on file in the Public Works Commissioner's Office. Public notice of the meeting was given pursuant to Act No. 267, Public Acts of Michigan, 1975, including, in the case of a special or rescheduled meeting or a meeting secured for more than 36 hours, notice by posting at least 18 hours prior to the time set for the meeting.



Brian Baker, Acting Chair
Macomb County Public Works Commissioner

DATED: 7/10/17

8795.bd



PROGRESS REPORT

TO: Ms. Candice Miller – Macomb County Public Works Commissioner
Mr. Vincent Astorino – Macomb County Public Works Commissioner’s Office (MCPWCO)

FROM: Erin H. Szczegielniak, PE

DATE: August 7, 2017 **PROJECT NO.:** 130620

RE: 8 1/2 Mile Relief Drain Drainage District
Stormwater, Asset Management, and Wastewater (SAW)
Asset Management (AM) – Bi-Weekly Progress Report
July 24 – August 4, 2017

Following is a summary of services completed during the past two weeks and the anticipated tasks for the next two weeks:

Items accomplished during the reporting period:

1. Asset Management Inventory
 - a. Began updating geographic information system (GIS) database based on survey information of manholes and catch basins.
2. NEXGEN Database
 - a. Began uploading record drawings in NEXGEN.
3. 3D Diagram and Reference Drawings
 - a. Finalized profile drawing of the 8 1/2 Mile Relief Drain.
 - b. Continued work on District Map.
4. Discharge Protocol
 - a. Issued final report.
5. Capital Improvements Plan (CIP)
 - a. Began work on CIP presentation to Drain Board.
6. Final Report
 - a. Received comments from MCPWCO staff and began finalizing report.

Anticipated tasks for the upcoming report period:

1. Asset Management Inventory
 - a. Finish updating GIS database based on survey information of manholes and catch basins.
2. Asset Management Database
 - a. Finish placement of record drawings in NEXGEN.
3. 3D Diagram and Reference Drawings
 - a. Continue Work on District Map.
 - b. Provide profile of 8 1/2 Mile Sewer for use in supervisory control and data acquisition (SCADA) system.
4. CIP
 - a. Continue work on CIP presentation to Drain Board.



5. Final Report

- a. Finalize report based on comments from MCPWCO staff review.
- b. Obtain certification signed by Brian Baker and forward to the Michigan Department of Environmental Quality (MDEQ).

Needed Information/Actions from MCPWCO/METCO:

1. Provide comments and missing information on District Map.

nac

By email

cc: Mr. Brian Baker – MCPWCO
Mr. Pete Trombley – MCPWCO
Ms. Maria E. Sedki, PE – FTCH



PROGRESS REPORT

TO: Ms. Candice Miller – Macomb County Public Works Commissioner
Mr. Vincent Astorino – Macomb County Public Works Commissioner’s Office (MCPWCO)

FROM: Erin H. Szczegielniak, PE

DATE: July 24, 2017

PROJECT NO.: 130620

RE: 8 1/2 Mile Relief Drain Drainage District
Stormwater, Asset Management, and Wastewater (SAW)
Asset Management (AM) – Bi-Weekly Progress Report
July 8 – July 21, 2017

Following is a summary of services completed during the past two weeks and the anticipated tasks for the next two weeks:

Items accomplished during the reporting period:

1. Asset Management Inventory
 - a. Surveyed manholes and catch basins on the 8 ½ Mile Relief Drain using the Global Positioning System (GPS).
2. NEXGEN Database
 - a. Began uploading record drawings in NEXGEN.
3. 3D Diagram and Reference Drawings
 - a. Delivered final copies of the following to MCPWCO:
 - 3D model and viewing program.
 - All four videos presented at board meeting.
 - All stills available.
 - PDF of the reference drawings.
 - b. Worked to develop CAD drawing profile of the 8 1/2 Mile Relief Drain based on record drawings, sewer televising, manhole inspection, and survey information.
 - c. Worked to update the overall District Map including ownership, pipe diameter, level sensor, and rain gauge information.
4. Discharge Protocol
 - a. None. Waiting for MCPWCO comments on draft report to finalize.
5. Preventative Maintenance Program
 - a. Held follow-up training for MCPWCO staff for NEXGEN and how to use the preventative maintenance forms and daily inspection forms.
6. Final Report
 - a. Received comments from MCPWCO staff and began finalizing report.



Anticipated tasks for the upcoming report period:

1. Asset Management Inventory
 - a. Check out replica of the geographic information system (GIS) database and update it based on survey information.
2. Asset Management Database
 - a. Finish placement of record drawings in NEXGEN.
3. 3D Diagram and Reference Drawings
 - a. Finalize profile drawing of the 8 1/2 Mile Relief Drain.
 - b. Finalize District Map.
4. Discharge Protocol
 - a. Finalize report based on MCPWCO staff comments.
5. Final Report
 - a. Finalize report based on comments from MCPWCO staff review.

Needed Information/Actions from MCPWCO/METCO:

1. Move NEXGEN database from the cloud to the supervisory control and data acquisition (SCADA) server.
2. Embed videos and record drawings into NEXGEN.
3. Review final report and Discharge Protocol report.

nac

By email

cc: Mr. Brian Baker – MCPWCO
Mr. Pete Trombley – MCPWCO
Ms. Maria E. Sedki, PE – FTCH



PROGRESS REPORT

TO: Ms. Candice Miller – Macomb County Public Works Commissioner
Mr. Vincent Astorino – Macomb County Public Works Commissioner’s Office (MCPWCO)

FROM: Erin H. Szczegieliak, PE

DATE: July 10, 2017

PROJECT NO.: 130620

RE: 8 1/2 Mile Relief Drain Drainage District
Stormwater, Asset Management, and Wastewater (SAW)
Asset Management (AM) – Bi-Weekly Progress Report
June 26 – July 7, 2017

Following is a summary of services completed during the past two weeks and the anticipated tasks for the next two weeks:

Items accomplished during the reporting period:

1. Asset Management Database
 - a. Added manhole replacement costs to NEXGEN.
2. 3D Diagram and Reference Drawings
 - a. Converted the 3D model into a free viewing version.
3. Discharge Protocol
 - a. Finished draft Tech Memo summarizing task and submitted for review.
4. 20-Year Capital Improvements Plan (CIP)
 - a. Reviewed MCPWCO Fiscal Year 2018/19 budget.

Anticipated tasks for the upcoming report period:

1. Asset Management Database
 - a. Work with METCO to place record drawings in NEXGEN.
2. 3D Diagram and Reference Drawings
 - a. Deliver final copies of the following to MCPWCO:
 - 3D model and viewing program.
 - All four videos presented at board meeting.
 - Any stills available.
 - PDF of the reference drawings.
 - b. Update 24 x 36-inch Map of District.
 - c. Develop profile of the 8DR sewer to incorporate into supervisory control and data acquisition (SCADA).
3. Preventative Maintenance Program
 - a. Hold follow-up training for MCPWCO staff for NEXGEN and how to use the preventative maintenance forms and daily inspection forms.
4. Discharge Protocol
 - a. Finalize report based on MCPWCO staff comments.



5. 20-Year CIP
 - a. No additional tasks.
6. Final Report
 - a. Finalize report based on comments from MCPWCO staff review.

Needed Information/Actions from MCPWCO/METCO:

1. Move NEXGEN database from the cloud to the supervisory control and data acquisition (SCADA) server.
2. Embed videos and record drawings into NEXGEN.
3. Review final report and Discharge Protocol report.

nac

By email

cc: Mr. Brian Baker – MCPWCO
Mr. Pete Trombley – MCPWCO
Ms. Maria E. Sedki, PE – FTCH

Candice S. Miller
Macomb County Public Works Commissioner

**Eight and One Half Mile Relief Drain Drainage District
SAW Grant**

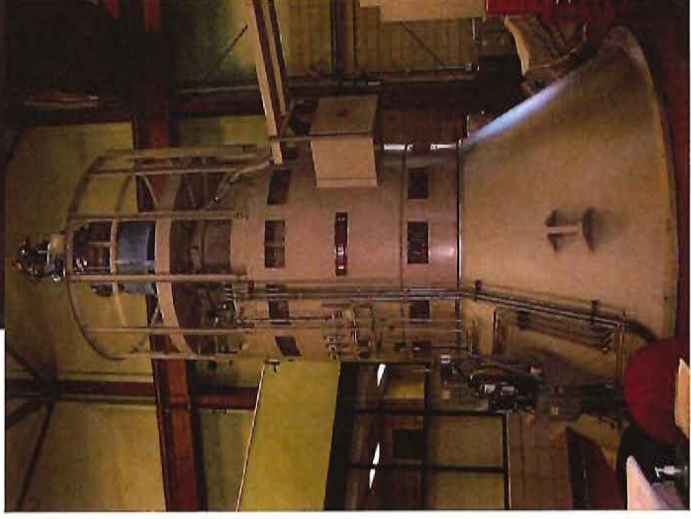
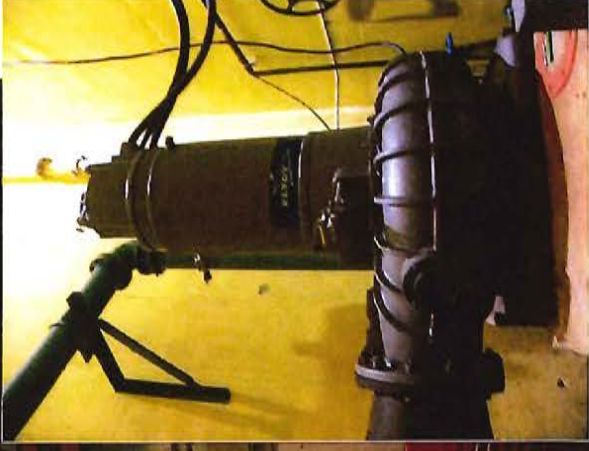
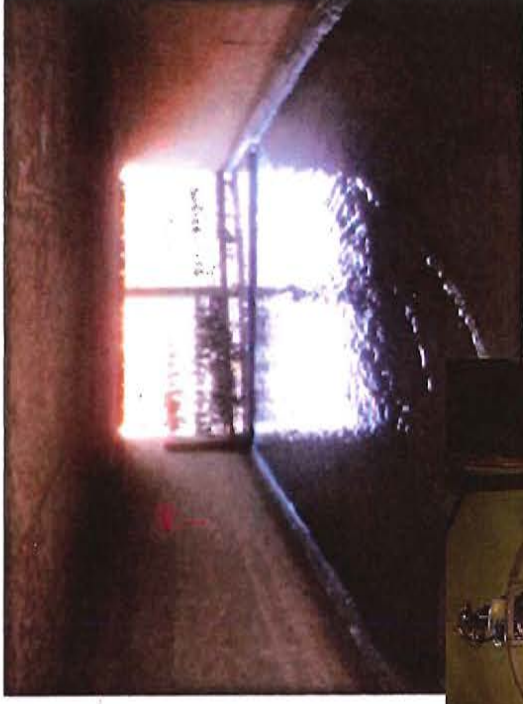


August 21, 2017



AGENDA

- NPDES Permit Requirements
- SAW Grant Overview
- Preventative Maintenance Program
- Capital Improvement Plan
- Other Items



National Pollution Discharge Elimination System (NPDES) Permit

- Issued by MDEQ
- Allows for the discharge of overflow from the Chapaton RTB
- Joint Permit with Southeast Macomb Sanitary District
- Last Updated: December 1, 2009, Expired: October 1, 2014
- New Permit Anticipated October 2017
- Anticipated to require an Asset Management Plan (AMP)

SAW Grant Program

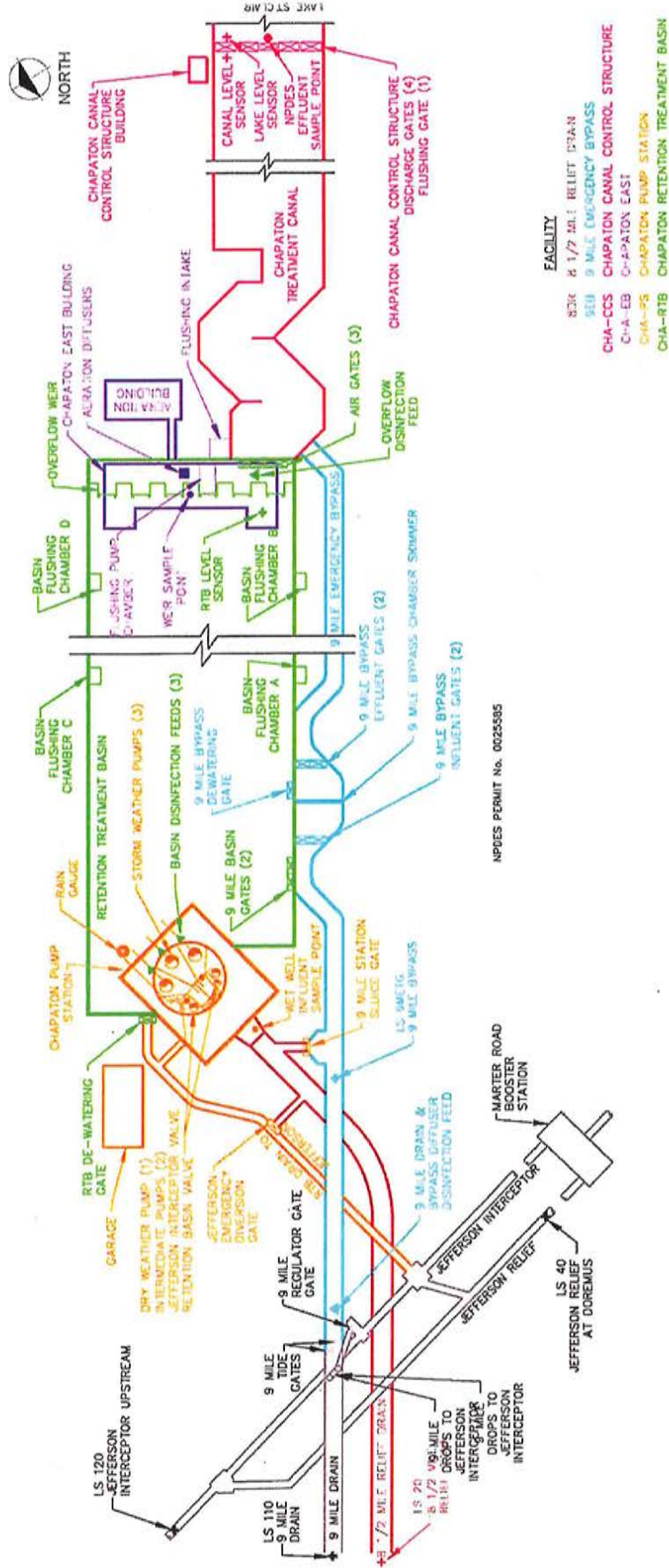
- Grant Program from the State to help communities prepare AMP
- 90% Funding of first \$1 million. 75% Funding of Second \$1 million
- Three years to complete
- Eight and One Half Mile Relief Drain Drainage District (District) SAW Awarded May 2014
- Grant Due May 2017 but extension awarded to August 2017
- Grant Total (including match) = \$1,220,838

AMP Requirements

1. Asset Inventory and Condition Assessment
2. Level of Service
3. Asset Criticality
4. Revenue Structure
5. Capital Improvement Plan



Asset Inventory and Condition Assessment



Asset Inventory

- Purchased an AMP Software (NEXGEN) to collect and store all information
- Developed 229 Asset “Types” such as: pipe, pump, manhole, valve, etc.
- 113 Asset “Types” were used in District
- Total District Assets = 856
 - 158 manholes
 - 157 pipe segments
 - 541 Vertical Assets

The screenshot displays the AMP software interface for asset management. At the top, there are weather indicators: 13.80 °F, 3.67 °F, and 19 °F. The main header shows the asset ID 'CHA-PS-P-DW-1' and its description 'CHA-PS Dye Weather Pump 1'. Below this, there are several sections:

- Summary:** Shows 'Vertical Centrifugal Pump' with an active status.
- Attributes:** Lists 'Asset Type' as 'Vertical Centrifugal Pump', 'Asset Date' as '01/07/2010', 'Asset Value' as '\$ 7500.00', and 'Asset ID' as '1010'.
- Location:** Shows 'Address' as 'Mount Pleasant, Michigan, United States'.
- Common To All:** A table listing common attributes for this asset type.

Attribute Name	Description of the Attribute	Default Values
Location-Description-1	Location-Description-1	225-Suburbanside
84	84	225-Suburbanside
City-Suburbanside	City-Suburbanside	225-Suburbanside
Manhole	Manhole	225-Suburbanside
Dry Well Submersible Pumps 1	Dry Well Submersible Pumps 1	225-Suburbanside
Suburbanside	Suburbanside	225-Suburbanside
- Vertical Centrifugal Pump Attributes:** A table listing specific attributes for this pump type.

Attribute Name	Value
Pipe	NT 3153 095
17.9	17.9
8	8
8	8
3	3

Asset Inventory

- Unique Naming Convention for each of the 856 Assets
- Picture of each Asset
- Basic Asset Information such as installation date, manufacturer, size, material, etc.
- Replacement Cost for each Asset
- Remaining Useful Life for each Asset



Asset Condition Assessment

Office of the Macomb County Public Works Commissioner
CANDICE S. MILLER

Condition Assessment Form

Asset Class: Submersible Pump Firm: FTCH Inspection Performed By:
 Asset Number: Person:
 Description: Date:

- Manhole Inspection in 2012

- Sewer Televising in 2013

- Condition Assessment of Vertical Asset

- 1 – 5 Ranking

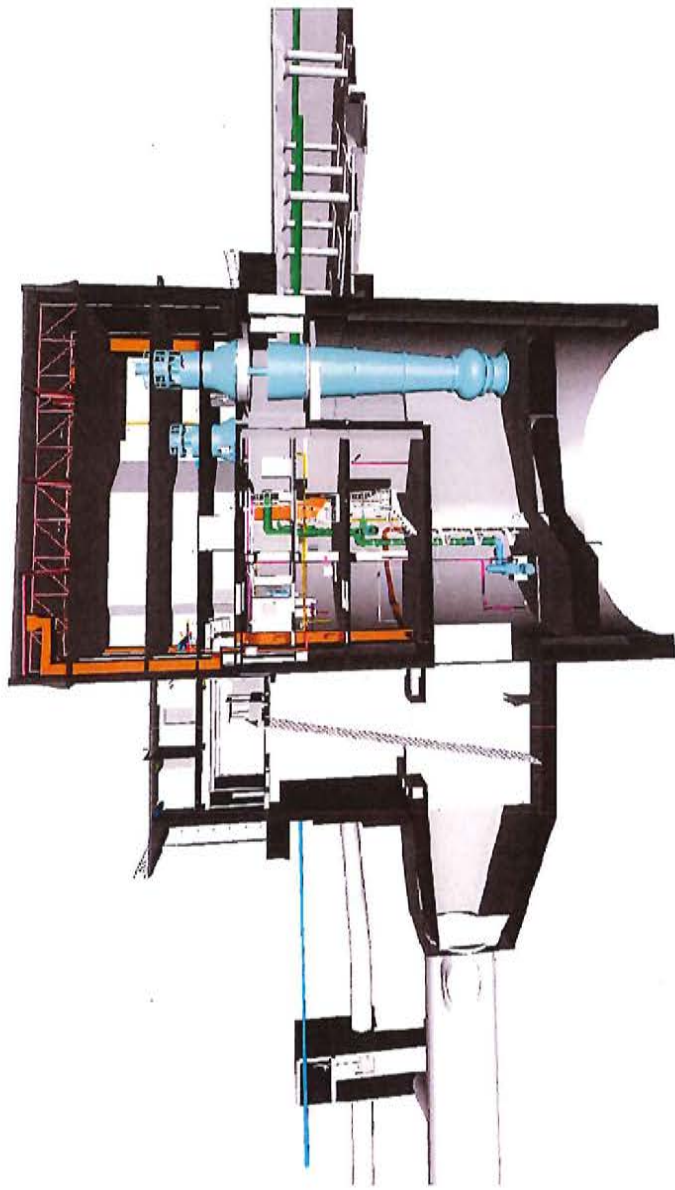
- 1 = New or Excellent Condition
- 5 = Asset Unserviceable

Question	Rating	Notes
All Components Present 2 Yes 4 No		
All Safety Features Present 2 Yes (or Not Applicable) 4 No		
General Appearance 1 Excellent 2 Good 3 Operational 4 Poor 5 Failure Imminent		
Functional 2 Fully Functional 4 Mostly Functional 5 Not Functional		
Cleaning 2 Cleaning/Maintenance is not required 4 Requires Moderate Cleaning/Maintenance 5 Requires Significant Cleaning/Maintenance		
Installation/Accessibility 2 Installed properly, easy to access 3 Minor installation problems, or minor access obstructions 4 Minor installation problems, or access obstructed 5 Improperly installed		
Absence of Cavitation 2 Yes 4 No		
Absence of Leaks 2 Yes 4 No		
Acceptable Noise 2 Yes 4 No		
Acceptable Vibration 2 Yes 4 No		
Corrosion - Metal 1 None 2 Slight Staining/Small Chips/Holes in Coating 3 Minor Corrosion 4 Pitting And Uniform Corrosion 5 Severe Pitting With Metal Loss		
Chain/Cables/Hooks/Rails 1 Excellent 2 Good 3 Minor Wear 4 Moderate Wear 5 Major Wear/Failure Imminent		
Connections Ok 2 Yes 4 No		



Asset Inventory and Condition Assessment

- Scanned and linked 28 Plans and Record Drawings to NEXGEN
- Developed process and instrumentation diagrams (P&IDs) of the system
- Developed one-line Electrical Diagrams
- Generated 3D model
- Temporary Flow Metering



Asset Criticality

- Probability of Failure (POF)
 - How likely is Asset to Fail
 - 1 thru 5 Rating

21

- Consequence of Failure (COF)
 - How Important is the Asset
 - 1 thru 5 Rating

- Business Risk Exposure (BRE)
 - Prioritizes Assets
 - BRE = POF x COF
 - 1 thru 25 Rating

25	20	15	10	5	5
20	16	12	8	4	4
15	12	9	6	3	3
10	8	6	4	2	2
5	4	3	2	1	1
5	4	3	2	1	1

Probability of Failure

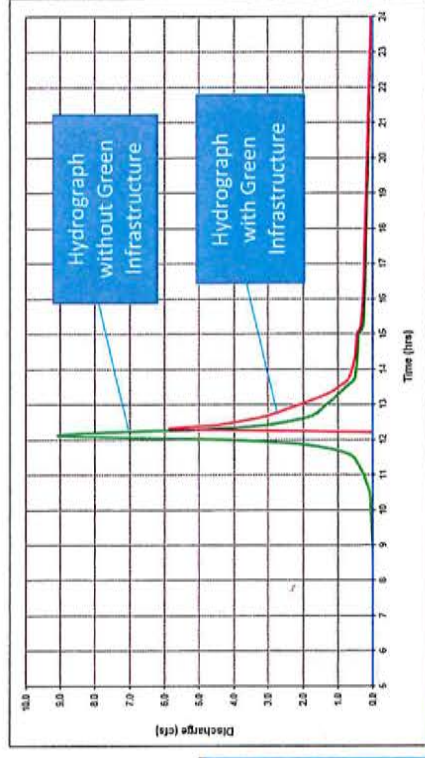
- High (16 - 25)
- Medium (5 - 15)
- Low (1 - 4)

Consequence of Failure



Other Work Performed as Part of SAW

- Staffing Plan Review
- O&M Manual Update
- Green Infrastructure Analysis
- Energy Audit



Preventative Maintenance (PM) Program

- Program Scope for Each of 856 Assets:
 - If regular PM is currently being performed on the asset.
 - If the PM work should be updated/expanded.
 - How frequently the PM should be performed.
 - If the PM should be done in-house or subcontracted out.
 - The effort required to perform the PM (cost and/or staff hours).
- Weekly, Monthly, Quarterly, Bi-Annually, Annually Work
- Information incorporated into NEXGEN
- NEXGEN issues Work Orders
- Work Order Closed after Work Completed

Preventative Maintenance Work Order Form Eight and One Half Mile Sewerage District 13901 East New York Ave. Ste. 202 St. Charles, Missouri, MO 63076 Office of the Marionette County Public Works Commissioner									
W.O Issue Date: 1/17/2017		W.O Number: 117							
Description of Work Order: Finishing of Intermediate Vertical Centrifugal Pump Cooling Jacket									
Budget Expense # Or Name:	File Number:		Hrs per Staff: 2						
Asset Name:		Asset Description:		Asset Class:		Asset Location:			
CHA-PS-P-INT-3		CHA-PS Intermediate Pump 3		Vertical Centrifugal Pump		Pumps			
CHA-PS-P-INT-3		CHA-PS Intermediate Pump 3							
W.O Start Date:		Hours Meter Reading:							
Task Completed Under this Work Order:									
Field Observations/Notes:									
Contractors or Materials Used									
Amount:	Name:	Rate:	Hours:	Management & Staff Labor:	Regular \$	OT Hrs	OT \$	Total \$	
Subtotal Contractors/Materials:									
Total W.O Cost									
Lease	Subtotal Labor:	Name:	Rate:	Hours:	Equipment	Hours:	Rate:	Cost:	
Materials	\$ -								
Equipment									
Other									
Total Cost:		Staff Signature:		Supervisor Signature:					
W.O Completion Date:		W.O Closeout Date:							

Preventative Maintenance (PM) Program

- Staff Performing PM Program and Using Work Order Forms for 3 months
- Staff to track Correction Maintenance (CM) in NEXGEN
- Program will be reviewed and updated annually
- NEXGEN uses PM and CM information to help determine condition and remaining useful life of Asset



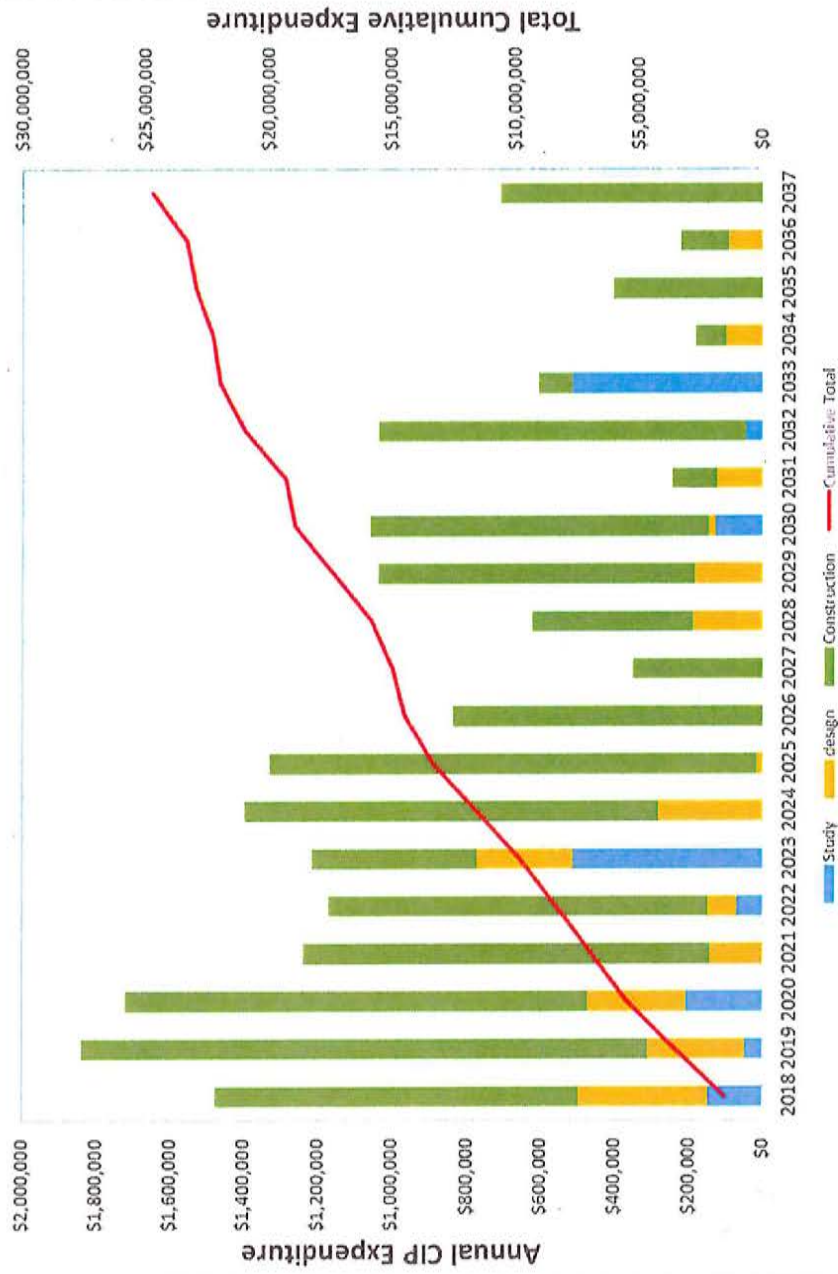
20-Year Capital Improvement Program (CIP)

- Information Used to Develop CIP
 - Remaining Useful Life of Asset
 - BRE Score
 - Staff Knowledge
 - Repair History
- 20 Year CIP (Thru 2037)
 - First 5 Years are Good
 - Next 15 Years are Speculative
- 3% Annual Inflation
- CIP Includes
 - Asset Replacement
 - Major Asset Rehabilitation



20-Year CIP

8 1/2 Mile Relief Drain Drainage District
CIP Expenditure (with 3% Annual Inflation)



5-Year CIP

Major projects anticipated to begin in the next five years are

1. Pumping and Screening Improvements
2. Installing a Flow Metering System
3. Updating the Canal Sampling System (Based on new NPDES requirements)
4. HVAC System Upgrade
5. Disinfection System Improvements
6. Canal Stabilization
7. Study – Basin Segmentation
8. Accumulator System “A” Upgrade
9. Updating Security Fence Structures Around Gate Actuators
10. Wet Well & RTB Crack and Joint Repair

5-Year CIP

Revenue	2017 Budget	2018 Budget	2019 Budget	2020 Budget	2021 Budget	2022 Budget
Assessments	1,988,987	3,152,570	3,911,238	3,688,811	3,227,896	2,830,653
Interest Earned	3,000	4,500	5,000	5,200	5,400	55,000
Other Revenue	1,500	1,500	1,500	1,500	1,500	1,500
Personnel Services	80,000	90,000	90,000	90,000	90,000	90,000
SRF Bond Proceeds	300,000					
Rental Fee	14,400	15,360	15,360	15,360	15,360	15,360
Total Revenue	2,387,887	3,263,930	4,023,098	3,800,871	3,340,156	2,992,513
Expenditures						
Application/Permit Fee	6,500	6,000	6,500	6,500	7,000	7,000
Debt Service Payment(Billed separately)						
Dues, Training, Conf, Subs.	3,000	2,500	3,000	3,500	4,000	4,500
Engineering	396,050	472,375	435,000	497,500	168,400	181,200
New Equipment	142,300	182,800	81,000	59,000	46,500	63,750
Office Supplies	1,000	1,000	1,200	1,300	1,400	1,500
Operating Supplies	67,800	82,800	85,000	87,000	88,000	90,000
Other Professional Svcs	10,000	15,000	15,000	17,000	18,000	19,000
Personnel Services	980,072	1,106,240	1,117,303	1,128,476	1,139,761	1,151,158
Repair & Maintenance	772,865	1,600,065	1,859,095	1,575,595	1,434,095	1,009,405
Scada System	159,000	152,000	153,000	155,000	160,000	190,000
SRF Related Expenses(5579-01)	300,000					
Utilities	157,100	190,500	192,000	195,000	198,000	200,000
Total Expenditures	2,995,687	3,811,280	3,948,098	3,725,871	3,265,156	2,917,513
Adjustments						
Estimated Beginning Fund Balance	(200,000)					
Repair and Maintenance Reserve	(105,000)	(127,000)				
Uncollectible Personnel Revenue	65,000	75,000	75,000	75,000	75,000	75,000
Engineering Reserve	(190,000)	(356,050)				
Equipment	(45,800)	(139,300)				
Credits	(132,000)					
Total Adjustments	(607,800)	(547,350)	75,000	75,000	75,000	75,000
TOTAL O & M REVENUE REQUIRED	2,387,887	3,263,930	4,023,098	3,800,871	3,340,156	2,992,513

Future Project Consideration

Projects not in Current CIP

- Basin Expansion (\$28 million to \$128 million per AEW Preliminary Study)
- Sewer Separation (\$55 million per AEW Preliminary Study)



Questions?



Funding Source	Apportionment	Manager	Vendor	Amount	Invoice Detail	Project Summary	Project Balance
1/2 Mile Relief	Chapter 20 State of MI - 16.04% County of Macomb - 2.25% Dept. of Roads - 2.25% Eastpointe - 54.33% SAW Grant 1173-01	Astorino	Compressor Engineering Corp.	\$ 1,643.68	Invoice #093575 - 7/10/17	Installation of new air compressor for Accumulator "A"	\$ 285,711.00
		Astorino	DE-CAL, Inc.	\$ 812.50	Invoice #WO17220421 - 6/15/17	Boiler shutdown and HVAC service	
		Astorino	DE-CAL, Inc.	\$ 1,014.03	Invoice #WO17220451 - 6/15/17	Preventative maintenance/service on air-handler unit	
		Astorino	DE-CAL, Inc.	\$ 1,091.33	Invoice #WO17390241 - 7/6/17	Backflow testing on valves and repair of 2 devices	
		Astorino	DTE Energy	\$ 7,367.84	Monthly Electric - 6/8/17 - 7/10/17	Chapaton RTB Stormwater Pumps	
		Astorino	Fishbeck, Thompson, Carr & Huber, Inc.	\$ 12,782.10	Invoice #367956 - 6/28/17 Engineering Services - ending 6/16/17	CIP, Metering/Discharge Protocol, 3-D Modeling, Green Infrastructure, O&M Manual	
		Astorino	IDEXX Laboratories	\$ 1,857.04	Invoice #3019206158 - 7/24/17	Quanti-Tray sealer for Chapaton RTB lab	
		Astorino	Jones Chemicals, Inc.	\$ 3,877.42	Invoice #726497 - 7/5/17	Hypochlorite Solution - 4,546 gallons used in disinfection process	
		Astorino	Jones Chemicals, Inc.	\$ 3,806.76	Invoice #728021 - 7/20/17	Hypochlorite Solution - 4,462 gallons used in disinfection process	
		Astorino	METCO Consulting Engineers	\$ 7,323.58	Invoice #1615-10 - 7/10/17 Engineering Services - 5/29/17 - 7/2/17	Chapaton CSO Control Facility Operations Management (Terry Moore)	
		Astorino	METCO Consulting Engineers	\$ 961.79	Invoice #1615-11 - 8/3/17	Chapaton CSO Control Facility Operations Management (Terry Moore)	
		Astorino	Motor City Electric Technologies	\$ 3,867.62	Invoice #91055 - 5/30/17	NAS installation, including drives, PCI cards, SFPs, etc.	
		Astorino	Motor City Electric Technologies	\$ 1,071.40	Invoice #91059 - 7/5/17	Sonicwall renewal	
		Astorino	NEXGEN Utility Management	\$ 2,500.00	Invoice #1803 - 8/8/17	License maintenance & support	
		Astorino	St. Clair Shores	\$ 5,078.02	Quarterly Water - 3/14/17 - 6/15/17	Monthly cell phone service	
		Astorino	Sprint	\$ 501.02	Invoice #299514228-170 - 6/4/17 - 7/3/17	Wonderware renewal	
		Astorino	Wonderware	\$ 6,587.60	Invoice #PB67986 - 8/9/17		
Total				\$ 62,143.73			

COMPRESSOR ENGINEERING CORP

1921 BELLAIRE AVE
 ROYAL OAK MI 48067
 Ups Acct 455304,
 Phone: (313) 491-8100 Fax: (313) 491-2766

(1643.68)

Invoice# **093575**

RECEIVED
 JUL 27 2017
 BY: **ML**

Account ID MACOMB COUNT	Contact PETE TROMBLEY	
Customer PO CHAPATON WEST	Telephone (586) 772-3425	Facsimile

Bill To: **Attn: Accounts Payable Dept.**

Ship To: **Chapaton West Air**

MACOMB COUNTY PUBLIC WORKS
 23001 E 9 MILE ROAD
 SAINT CLAIR SHORES, MI 48080

MACOMB COUNTY PUBLIC WORKS
 23001 E 9 MILE ROAD
 SAINT CLAIR SHORES, MI 48080

Remit To: 1921 BELLAIRE AVE Royal Oak, MI 48067

Special Order Drop Ship

Invoice Date 07/10/2017	Comments INSTALL REAVELL 5209	Special Instructions	Terms NET 30 DAYS
Ship Via OUR DELY	Date Required 06/23/2017	FOB SP	Ship Date 06/27/2017
		From Order# 130263	Salesperson CRAIG BAILEY

Ordered	Shipped	B.O.	Item# Description	UOM	Price	Total
1	1	0	SERVICE CALL-01 ON REVELL M#5209 <i>Tech notes. Installed and started up new unit. Ran piping to the top of tank, installed a new pressure switch - made adjustments to settings for new unit and existing IR unit. 3 hours</i>	EA	\$0.00	\$0.00
1	1	0	LABOR, TECH #42-00 REGULAR TIME RATE <i>PICKING UP MATERIAL 6/23/17</i>	HR	\$95.00	\$95.00
1	1	0	MISC PIPE FITTINGS-00 <i>HIGH PRESSURE PRIPING, UNIONS, FITTINGS, NIPPLES, 90 DEGREE ELBOWS</i>	LOT	\$198.18	\$198.18
1	1	0	SHOP SUPPLIES-01 (RAGS, CLEANING MATERIALS)	EA	\$15.00	\$15.00
8	8	0	LABOR, TECH #42-00 REGULAR TIME RATE <i>6/26/17-INSTALL UNIT</i>	HR	\$95.00	\$760.00
1	1	0	LABOR, TECH #42 OT-00 OVERTIME RATE <i>6/26/17-INSTALL</i>	HR	\$127.50	\$127.50
4	4	0	LABOR, TECH #42-00 REGULAR TIME RATE <i>6/27/17-COMPLETE INSTALL AND RUN UNIT TO DIAL IN TEMPS AND PRESSURES</i>	HR	\$95.00	\$380.00
68	68	0	MILEAGE-42-00 PORTAL TO PORTAL <i>2 TRIPS</i>	EA	\$1.00	\$68.00

City: 8 1/2 Mile

Date 7.27.17

Chief Depart _____

Engineer(s) JA

Manager(s) _____

Coordinator JD

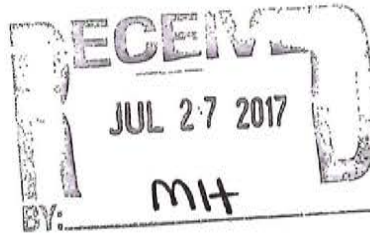
Finance Officer hmm

PA036473
93000

Staff 8.14.17



DE-CAL, Inc.
 24659 Schoenherr Rd.
 Warren, MI 48089-4775
 Service Phone: 586-619-0281
 Service Fax: 586-486-5242



Service Invoice

Invoice #: WO17220421

Date: 06/15/2017

Billed To: Macomb County Chapaton
 23001 E. 9 Mile Rd.
 St. Clair Shores MI 48080
 Attn: Accounts Payable

Location: Macomb Chapaton Pumping
 23001 E. 9 Mile Rd.
 St. Clair Shores MI 48080

Client PO#:	Employee: John Burns	Due Terms: 30DY
--------------------	-----------------------------	------------------------

Assembly#	Part#	Description	Quantity	Price	Ext Price	Sales Tax
		See Attached	1.0000	812.500000	812.50	N

Notes:
 See work order for details

Chg: 8 1/2 Mile

Date	<u>7.27.17</u>
Order Quantity	_____
Engineer(s)	<u>WA</u>
Coordinator(s)	<u>30</u>
Finance Officer	<u>jam</u>

PA036671 77500

Staff 8-14-17
Boara 9-11-17

De-Cal Service Group is a division of De-Cal, Inc.

Please Make Checks Payable to: De-Cal, Inc.

Thank you for your prompt payment!

Amount Due: \$	812.50
-----------------------	---------------



DE-CAL, Inc.
 24659 Schoenherr Rd.
 Warren, MI 48089-4775
 Service Phone: 586-619-0281
 Service Fax: 586-486-5242

RECEIVED
 JUL 27 2017
 BY: MH

Service Invoice

Invoice #: WO17220451
 Date: 06/15/2017

Billed To: Macomb County Chapaton
 23001 E. 9 Mile Rd.
 St. Clair Shores MI 48080
 Attn: Accounts Payable

Location: Macomb Chapaton Pumping
 23001 E. 9 Mile Rd.
 St. Clair Shores MI 48080

Client PO#:	Employee: John Burns	Due Terms: 30DY
--------------------	-----------------------------	------------------------

Assembly#	Part#	Description	Quantity	Price	Ext Price	Sales Tax
		See Attached	1.0000	1,014.030000	1,014.03	N

Notes:
 See work order for details

Chg: 8 1/2 Mile
 Date 7.27.17
 Chief Deputy _____
 Engineer (st. UA) _____
 Manager (st. _____
 Coordinator (st. _____
 Finance Officer BM

PA034672 77500

De-Cal Service Group is a division of De-Cal, Inc.

Please Make Checks Payable to: De-Cal, Inc.

Thank you for your prompt payment!

Amount Due: \$ 1,014.03

Staff 8-14-17
 8-11-17



DE-CAL, Inc.
 24659 Schoenherr Rd.
 Warren, MI 48089-4775
 Service Phone: 586-619-0281
 Service Fax: 586-486-5242

RECEIVED
 JUL 13 2017
 BY: ML

Service Invoice

Invoice #: WO17390241

Date: 07/06/2017

Billed To: Macomb County Chapaton
 23001 E. 9 Mile Rd.
 St. Clair Shores MI 48080
 Attn: Accounts Payable

Location: Macomb Chapaton Pumping
 23001 E. 9 Mile Rd.
 St. Clair Shores MI 48080

Client PO#:	Employee: Rob Murphy	Due Terms: 30DY
--------------------	-----------------------------	------------------------

Assembly#	Part#	Description	Quantity	Price	Ext Price	Sales Tax
		See Attached	1.0000	1,091.330000	1,091.33	N

Notes:
 See work order for details

Chg: 8 1/2 Mile

Date	<u>7.13.17</u>
Chief Deputy	<u>AB</u>
Engineer(s)	<u>JA</u>
Manager(s)	
Coordinator(s)	<u>BD</u>
Finance Officer	<u>BM</u>

PA036547 77500

De-Cal Service Group is a division of De-Cal, Inc.

Please Make Checks Payable to: De-Cal, Inc.

Thank you for your prompt payment!

Amount Due: \$ 1,091.33

Staff 7-25-17

8-7-17

Summary Of Charges

Account Number 9100-0005-3785

Previous Balance as of 06/12/2017	7,367.84
Payment(s) and Credit(s)	- 7,367.84
Remaining Balance	\$0.00

Current Charges

Service Location	Item	Service Type	Rate	Bill Period	Amount
23001 E 9 Mile Rd	7004376662	General Service Municipal Pumping-Net Metering	EFCND3_WP	06/08 - 07/10/17	7,367.84
		Taxes			0.00
		Miscellaneous Charges			0.00
		Current Bill			\$7,367.84
					\$7,367.84

Account Information

MACOMB COUNTY
MACOMB COUNTY DRAIN COMM
21777 DUNHAM RD
CLINTON TWP, MI 48036

17-367

RECEIVED
JUL 18 2017
BY: mt

Account Number 9100-0005-3785

DTE-Energy Federal ID No. 38-3217752

Programs you are enrolled in:

How to contact us:

Power Outage See Detail Charges
Billing Inquiry 1-734-397-4309

Please make any inquiry or complaint about this bill to DTE Energy before the Due Date. DTE Energy is regulated by the Michigan Public Service Commission, Lansing, Michigan

Important Information

Beginning with the June 2017 billing cycle, the Power Supply Cost Recovery (PSCR) factor will decrease from a charge of 0.214 cents per kWh to a credit of (0.03) cents per kWh. The PSCR factor allows DTE Electric to recover its actual fuel and purchased power expense and is billed to customers without any profit or markup.

Chg: 8 1/2 Mile Rly

Date 7-18-17
Chief Deputy AB
Engineer(s) JA
Manager(s) _____
Coordinator(s) JD
Finance Officer AM

PA 036581 92300

Staff 7-25-17
Board 8-7-17



Fishbeck, Thompson, Carr & Huber, Inc.
 engineers | scientists | architects | constructors
 Federal I.D. No. 38-1841857 | Incorporated

Payment Options

Remit Wire/ACH payments to Acct: 100094457 ABA: 072413829
 Remit checks to: 1515 Arboretum Drive, SE | Grand Rapids, Michigan 49546

RECEIVED
 JUN 29 2017
 BY: MH

Attention: Mr Vincent Astorino
 Macomb County Public Works Commissioner
 21777 Dunham Rd
 Clinton Township, MI 48036
 United States

Invoice : 367956
 Invoice Date : 6/28/2017
 Project : 130620
 Project Name : Macomb Co PW/Chapaton SAW
 Bill Term : 1

For Professional Services Rendered Through 6/16/2017

	<u>Current</u> <u>Billings</u>
CIP - Chapaton SAW - CIP and Final Report	4,505.00
Rate Labor	4,316.00
Unit Rate Expense	189.00
DP - Chapaton SAW - Metering & Discharge Protocol	3,548.10
Rate Labor	3,497.00
Unit Rate Expense	51.10
DWG - Chapaton SAW - 3D Model & Ref Dwgs	2,696.00
Rate Labor	2,696.00
GI - Chapaton SAW - Green Infrastructure	1,117.50
Rate Labor	1,117.50
PM - Chapaton SAW - Overall Mgmt	915.50
Rate Labor	915.50
	<u>12,782.10</u>
	<u>Amount Due This Bill</u> 12,782.10

Chg: 8 1/2 Mile SAW 1173-01

Date	<u>6-29-17</u>
Chief Deputy	<u>JS</u>
Engineer(s)	<u>JA</u>
Manager(s)	_____
Coordinator(s)	<u>JD</u>
Finance Officer	<u>BM</u>

PA036418 80300

Staff 7-25-17

Board 8-7-17



INVOICE

RECEIVED
AUG 08 2017
BY: MIT

INVOICE NUMBER	3019206158
INVOICE DATE	07/24/2017
SHIP-TO ACCOUNT NUMBER:	13502

BILL-TO ACCOUNT NUMBER: 13502

Billing Address

MACOMB CTY OFFICE OF PUBLIC WORKS
23001 NINE MILE ROAD
SAINT CLAIR SHORES, MI 48080

Shipping Address

MACOMB CTY OFFICE OF PUBLIC WORKS
23001 NINE MILE ROAD
SAINT CLAIR SHORES, MI 48080

PO NUMBER		PAYMENT TERMS				DELIVERY NUMBER		CURRENCY	
Email-Kris Benda		Net Due on 25th of next month				8004573127		USD	
SHIP DATE	ITEM#	DESCRIPTION	UNIT PRICE	UNIT	QTY	GROSS AMOUNT	DISCOUNT	NET AMOUNT	
07/10/2017	99-0002570	SEALER PLUS, WQTSPLUSTI	3,577.50	EA	1	3,577.50		3,577.50	
	98-0002570-00	SEALER PLUS, WQTSPLUS		EA	1				
	05-00879-01	BOX QT SEALER, SHIPPING		EA	1				
	05-09377-00	FOAM PAD, QT SEALER		EA	1				
	05-00878-00	FOAM END CAP		EA	2				
	05-09378-00	CORRUGATED PAD, QT SEALER		EA	1				
	05-00877-00	PAD QT SEALER SHIP BX		EA	1				
		Shipping						136.57	
		Total amount						3,714.07	

Chg: 8 1/2 Mile Rly @ 1857.04
SEMENTS @ 1857.03

Date: 8-8-17
 Chief Deputy _____
 Engineer (s) JA
 Manager (s) _____
 Coordinator (s) JD
 Finance Officer DM

Save Money, Save Time & Go Green
 Save money, time and a tree by switching to electronic billing.
 Simply contact us with your invoice delivery preference:
 online at our Invoice Gateway web site, email or fax.

Please have your account number and enrollment token available (found on printed invoice)
 Go to idexx.billtrust.com to sign up for IDEXX's Invoice Gateway
 Contact Accounts Receivable at accountsreceivable@idexx.com to switch to email or fax delivery

PA036016
74100

Dairy or Water Products 800-321-0207 This transaction is subject to the IDEXX terms and conditions of sale found at <https://www.idexx.com/naterms>
IDEXX's privacy policies can be viewed at <https://www.idexx.com>

Please detach this section and enclose with your payment. DO NOT SEND CASH!

ACCOUNT NUMBER	INVOICE NUMBER	INVOICE DATE
13502	3019206158	07/24/2017
TOTAL DUE		CURRENCY
\$3,714.07		USD

IDEXX Laboratories, Inc.
One IDEXX Drive
Westbrook, Maine 04092

Enter Amount Enclosed: 1857.04

If you would like to pay by credit card or make an online payment from your checking account, please enroll in Invoice Gateway using the below website and enrollment token.

Website: <http://idexx.billtrust.com>
Enrollment Token: LFX HML PKK

To sign up for our Autopay Program please call: 800-321-0207

Please Send Your Payment To This Address:

IDEXX Distribution, Inc.
PO Box 101327
Atlanta, GA 30392-1327

130 1 SP 0.460 ED130X I0159 D2674119635 S2 P4468911 0001:0001
MACOMB CTY OFFICE OF PUBLIC WORKS
23001 E 9 MILE RD
SAINT CLAIR SHORES MI 48080-1576

Staff 8-14-17
0000013502301920615820170724000000000000003714076



www.jcichemicals.com

INVOICE

RECEIVED
JUL 24 2017
BY: mh

*** ORIGINAL ***
 JCI JONES CHEMICALS, INC..
 RIVERVIEW BRANCH LOCATION
 18000 PAYNE AVENUE
 RIVERVIEW, MI 48192
 Phone: (734) 283-0677
 Fax: (734) 283-0979
 email: cs@jci chem.com

Inv Date	Invoice #
07/05/2017	726497
Date Shipped	Order/BOL #
07/05/2017	533265

Customer Number
 21543215

S MACOMB COUNTY
 O ATTN: ACCTS PAYABLE
 L 23001 9 MILE ROAD
 D Saint Clair Shores, MI 48080-
 T USA
 O

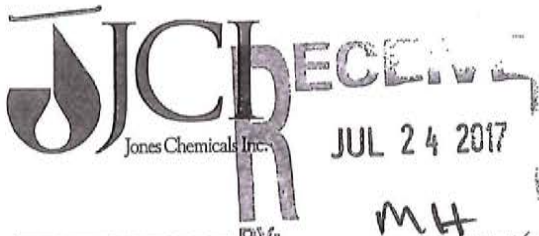
S ID #: 1
 H CHAPATON PUMPING STATION
 I 23001 NINE MILE RD
 P ST CLAIR SHORES, MI 48080-
 T USA
 O

Customer PO #		FOB Remark		Freight Terms		Sales ID												
VBL-PETE TROMBLEY		Destination		Delivered		NORTH												
Release #		Ship Via	Terms	Due Date	Discount Due Date													
		JCI	N 30	08/04/2017	8/4/2017													
Units	Package	Product Name	Total Quantity	Unit Price	Amount													
4,546.00	1 Gal Bulk	HYPOCHLORITE SOLUTION, SS150 1201-001 BULK (\$85 Stop Fee) (+ fsc)	4,546.0000/Gal	0.8500 /Gal	3,864.10													
General Remarks:		<> EMAIL INVOICE TO: michelle.houvener@macombgov.org <> OUTSIDE CARRIER: HAROLD MARCUS NET WEIGHT: 45760 FSC																
		Fuel Surcharge			13.32													
		<i>Chg: 8 1/2 Mile</i>																
		<table border="1"> <tr> <td>Date</td> <td><u>7.25.17</u></td> </tr> <tr> <td>Chief Deputy</td> <td><u>AB</u></td> </tr> <tr> <td>Engineer (s)</td> <td><u>JA</u></td> </tr> <tr> <td>Manager (s)</td> <td><u></u></td> </tr> <tr> <td>Coordinator (s)</td> <td><u>JD</u></td> </tr> <tr> <td>Finance Officer</td> <td><u>hkm</u></td> </tr> </table>		Date	<u>7.25.17</u>	Chief Deputy	<u>AB</u>	Engineer (s)	<u>JA</u>	Manager (s)	<u></u>	Coordinator (s)	<u>JD</u>	Finance Officer	<u>hkm</u>			
Date	<u>7.25.17</u>																	
Chief Deputy	<u>AB</u>																	
Engineer (s)	<u>JA</u>																	
Manager (s)	<u></u>																	
Coordinator (s)	<u>JD</u>																	
Finance Officer	<u>hkm</u>																	
		<i>PA036662 74200</i>																

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Staff 8-1-17
 Remit To: JCI Jones Chemicals, Inc.
 PO Box 31542
 Tampa, FL 33631-3542 USA
Board 8-7-17

Total: **3,877.42**
 PLEASE PAY THIS AMOUNT



www.jcichemicals.com

INVOICE

*** ORIGINAL ***
 JCI JONES CHEMICALS, INC..
 RIVERVIEW BRANCH LOCATION
 18000 PAYNE AVENUE
 RIVERVIEW, MI 48192
 Phone: (734) 283-0677
 Fax: (734) 283-0979
 email: cs@jci chem.com

Inv Date	Invoice #
07/20/2017	728021
Date Shipped	Order/BOL #
07/20/2017	535082

Customer Number
 21543215

S MACOMB COUNTY
 O ATTN: ACCTS PAYABLE
 L 23001 9 MILE ROAD
 D Saint Clair Shores, MI 48080-
 T USA
 O

S ID#: 1
 H CHAPATON PUMPING STATION
 I 23001 NINE MILE RD
 P ST CLAIR SHORES, MI 48080-
 T USA
 O

Customer PO #		FOB Remark	Freight Terms		Sales ID
VERBAL-BRENT		Destination	Delivered		NORTH
Release #		Ship Via	Terms	Due Date	Discount Due Date
		JCI	N 30	08/19/2017	8/19/2017
Units	Package	Product Name	Total Quantity	Unit Price	Amount
4,462.00	1 Gal Bulk	HYPOCHLORITE SOLUTION, SS150 1201-001 BULK (\$85 Stop Fee) (+ fsc)	4,462.0000/Gal	0.8500 /Gal	3,792.70
General Remarks:		<> EMAIL INVOICE TO: michelle.houvener@macombgov.org <> OUTSIDE CARRIER: HAROLD MARCUS NET WEIGHT: 451100 FSC			
		Fuel Surcharge			14.06
		Chg: 8 1/2 Mile			
		Date 7.25.17			
		Chief Deputy <i>AB</i>			
		Engineer(s) <i>UA</i>			
		Manufacturer(s)			
		Coordinator(s) <i>3D</i>			
		Finance Officer <i>hmm</i>			
		PA 036660 74200			

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Staff 8-1-17

Remit To: JCI Jones Chemicals, Inc.
 PO Box 31542
 Tampa, FL 33631-3542 USA

Total: **3,806.76**

PLEASE PAY THIS AMOUNT



Board 8-7-17

JCI Welcomes payments via ACH, EFT and WIRE



12835 Stephens Road · Warren · Michigan · 48089 · (586) 920-2620 · Fax (586) 510-4433

RECEIVED
JUL 13 2017
BY: MIT

July 10, 2017

Office of Macomb County Public Works Commission
21777 Dunham Road
Clinton Township, MI 48111

Attn: Mr. Vincent Astorino
Acting Chief Engineer - Wastewater Services

RE: Chapaton CSO Control Facility Operations Management

INVOICE #1615-10

Attached please find our Invoice #1615-10 in the amount of \$7,323.58 (Nine Thousand Five Hundred Fifty-five Dollars and fifty-eight cents only) for Professional Services rendered in connection with the above referenced project for the period May 29, thru July 2, 2017.

Should you need anymore information, please call me at (313) 961-4560.

Very truly yours,

METCO SERVICES, INC.

Rosana Santos
Vice President-Administration

Chg: 8 1/2 Mile

Date	7.13.17
Chief Deputy	JB
Engineer (s)	JA
Manager (s)	
Coordinator (s)	BO
Finance Officer	hmm

PA036555 80300

Staff 7-25-17

Hand 8-7-17

16-40006



12835 Stephens Road · Warren · Michigan · 48089 · (586) 920-2620 · Fax (586) 510-4433

RECEIVED
AUG 08 2017
BY: MH

August 3, 2017

Office of Macomb County Public Works Commission
21777 Dunham Road
Clinton Township, MI 48111

Attn: Mr. Vincent Astorino
Acting Chief Engineer - Wastewater Services

RE: Chapaton CSO Control Facility Operations Management

INVOICE #1615-11

Attached please find our Invoice #1615-11 in the amount of \$961.79 (Nine Hundred Sixty-one Dollars and seventy-nine cents only) for Professional Services rendered in connection with the above referenced project for the period July 3, thru July 30, 2017.

Should you need anymore information, please call me at (313) 961-4560.

Very truly yours,

METCO SERVICES, INC.

Rosana Santos
Vice President-Administration

Chg: 8 1/2 Mile Rly

Date	_____
Chief Deputy	_____
Engineer (s)	JA
Manager (s)	_____
Coordinator (s)	SD
Finance Officer	HW

PA 036803 80300

16-0006

Staff 8-14-17

Board 9-11-17



MOTOR CITY ELECTRIC TECHNOLOGIES INC.
AUTOMATION AND CONTROLS SOLUTIONS
 9440 GRINNELL
 DETROIT, MI 48213-1151
 PHONE (313) 921-5300 FAX (313) 921-5310
 AN EQUAL OPPORTUNITY EMPLOYER

INVOICE

RECEIVED
 AUG 01 2017
 MIA

13030 MACOMB COUNTY PUBLIC WORKS
 21777 DUNHAM ROAD
 CLINTON TOWNSHIP, MI 48036

Customer
 PO Number

Job Number	Sub Job	Contract Number	Date Performed	Application Date	Application Number
915500	0	001	5/30/2017	7/18/2017	91055

JOE BETZ

Item No	Description of Work	Contract Amount	Previous Billings	Current Amount	To Date Complete & Stored	Balance To Finish	Current Retainage
001	MACOMB COUNTY T&M	\$7,735.24	-	\$7,735.24	\$7,735.24	-	-
Totals:		\$7,735.24	-	\$7,735.24	\$7,735.24	-	-
Less Retained:							
Invoice Total:		\$7,735.24		\$7,735.24			

AS NEEDED ELECTRICAL AND ENGINEERING SERVICES

SEE ATTACHED INVOICE SUMMARY AND FIELD REPORT

QUOTE #17-1685 ATTACHED

Chg: M1000-CPS
 @ 3867.62
 8 1/2 M. Jc @ 3867.62

Date 8.2.17
 Chief Deputy _____
 Engineer(s) VA
 Manager(s) _____
 Coordinator(s) SD
 Finance Officer MM

PA036764 80700

Staff 8.14.17

Board 9.11.17

complete electrical construction

"We hereby certify that the articles and services covered by this invoice were produced and performed in compliance with all applicable requirements of Section 6, 7 and 12 of the Fair Labor Standards Act, as amended, and of regulations and orders of the United States Department of Labor issued under Section 14 thereof."



MOTOR CITY ELECTRIC TECHNOLOGIES INC.
 AUTOMATION AND CONTROLS SOLUTIONS
 9440 GRINNELL
 DETROIT, MI 48213-1151
 PHONE (313) 921-5300 FAX (313) 921-5310
 AN EQUAL OPPORTUNITY EMPLOYER

RECEIVED
 AUG 0-1 2017
 MH

INVOICE

Job Number	915500	Sub Job	0	Contract Number	001	Date Performed	7/5/2017	Date	7/18/2017	Application Number	91059
------------	--------	---------	---	-----------------	-----	----------------	----------	------	-----------	--------------------	-------

Customer
 PO Number
 13030
 MACOMB COUNTY PUBLIC WORKS
 21777 DUNHAM ROAD
 CLINTON TOWNSHIP, MI 48036

JOE BETZ

Item No	Description of Work	Contract Amount	Previous Billings	Current Amount	To Date Complete & Stored	Balance To Finish	Current Retainage
001	MACOMB COUNTY T&M	\$2,491.64	-	\$2,491.64	\$2,491.64	-	-
Totals:		\$2,491.64		\$2,491.64	\$2,491.64		
Less Retained:							
Invoice Total:				\$2,491.64			

44 AS NEEDED ELECTRICAL AND ENGINEERING SERVICE

SEE ATTACHED INVOICE SUMMARY AND FIELD REPORT

MID / CHAPATON / OMID

BREAKOUT:
 M20170705A: = \$303.49
 MID-43% = \$303.49
 Chapaton-43% = \$303.49
 OMID-14% = \$98.82
 M20170705:
 MID-43% = \$767.91
 Chapaton-43% = \$767.91
 OMID-14% = \$250.02

TOTALS
 MID = \$1,071.40
 CHAPATON = \$1,071.40
 OMID = \$348.84

Chg: 8 1/2 Mide

Date: 8-2-17
 Chief Deputy _____
 Engineer(s) UA _____
 Manager(s) _____
 Coordinator(s) _____
 Finance Officer btm _____

PA036761 80700

WAGE 8-14-17
 Board 9-11-17

complete electrical construction

"We hereby certify that the articles and services covered by this invoice were produced and performed in compliance with all applicable requirements of Section 6, 7 and 12 of the Fair Labor Standards Act, as amended, and of regulations and orders of the United States Department of Labor issued under Section 14 thereof."

NEXGEN Utility Management

4010 Lennane Drive
Sacramento, CA 95834

RECEIVED
AUG 11 2017
M4
BY: Invoice #: 1803

Invoice

Invoice Date: 8/8/2017
Due Date: 8/23/2017
Terms Net 15
P.O. Number:

Bill To:

Macomb County Public Works
Vincent Astorino
21777 Dunham Road,
Clinton Township, MI 48036

Item	Description	Hours/Qty	Rate	Class	Serviced	Amount												
NEXGEN AM License ...	NEXGEN AM License Maintenance & Support (Oct 1, 2017 - Sep 30, 2018) No Sales Tax	5	1,500.00	AM		7,500.00												
			0.00%	AM		0.00												
<p>Chg: 8 1/2 Mile Rlf #0017 \$2500.00 SEMCW WDS #3018 \$2500.00 MIDD #3000 \$2500.00</p>																		
<table border="1" style="width: 100%;"> <tr> <td>Date</td> <td>8.11.17</td> </tr> <tr> <td>Chief Deputy</td> <td></td> </tr> <tr> <td>Engineer(s)</td> <td>VA</td> </tr> <tr> <td>Manager(s)</td> <td></td> </tr> <tr> <td>Coordinator(s)</td> <td>ED</td> </tr> <tr> <td>Finance Officer</td> <td></td> </tr> </table>							Date	8.11.17	Chief Deputy		Engineer(s)	VA	Manager(s)		Coordinator(s)	ED	Finance Officer	
Date	8.11.17																	
Chief Deputy																		
Engineer(s)	VA																	
Manager(s)																		
Coordinator(s)	ED																	
Finance Officer																		
						PA036873												

Direct Deposit: Bank of America Routing: 121000358 Account: 07031 41840
Send remittances to: vyee@nexgenum.com.

Total	\$7,500.00
Payments/Credits	\$0.00
Balance Due	\$7,500.00

Phone #	E-Mail
916.564.8000	vyee@nexgenam.com

Staff 8.14.17
Board 8.21.17



St. Clair Shores Water Bill

ACCOUNT NUMBER 23287-00	SERVICE ADDRESS 23001 NINE MILE	SERVICE TYPE Government
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PREVIOUS READ 1063	CURRENT READ 1111 A	CONSUMPTION 378	FROM: SERVICE PERIOD TO: 03/14/2017 06/15/2017
DUE DATE 07/21/2017		PAY AFTER DUE DATE 5331.91	PAY BY DUE DATE 5078.02

PREVIOUS BALANCE	0.00
Water	1689.66
Sewer	2292.19
Customer Chg	321.60
Retention Basins O&M	0.49
Storm Water	774.08

CURRENT BALANCE 5078.02

MONTHLY BUDGET

Temp-Return Service Requested

8269 1 AB 0.403

8269-8269-20

MACOMB COUNTY PUBLIC WORKS
21777 DUNHAM RD
CLINTON TWP MI 48036-1005

RECEIVED
JUL 03 2017
BY: MH

Chg: 8 1/2 mile

17.342

PLEASE RETAIN THIS UPPER PORTION FOR YOUR RECORDS.
YOUR CANCELLED CHECK IS YOUR RECEIPT.

Water rate: \$4.470/unit
Sewer rate: \$6.064/unit
Total rate: \$10.534
One unit = 748 gallons

Date 7.5.17

Chief Deputy AB

Engineer(s) JA

Manager(s) _____

Coordinator(s) SD

Finance Officer hm

FOR FURTHER INFORMATION PLEASE CALL:

BILLING INFORMATION - (586) 447-3317

SERVICE INFORMATION - (586) 445-5374

VISIT US ON THE WEB AT www.scsmi.org

To Pay by Credit Card or Electronic Check



Visit www.scsmi.org

Online Payments and Services

or call 1-855-414-9009 (credit card only)

Point and Pay LLC, the service provider, charges a fee for this service of:

3.00% for credit cards (\$1.50 minimum)

Electronic checks are provided as a FREE service.

IMPORTANT INFORMATION - SEE REVERSE SIDE

REMOVE DOCUMENT ALONG THIS PERFORATION
AND MAKE SURE RETURN ADDRESS APPEARS THROUGH WINDOW



City of
St. Clair
Shores

27600 Jefferson Ave.
St. Clair Shores, MI 48081

Staff 7-26-17
Board 8-7-17



sprint.com/contactus

1-800-927-2199
(*2 from your Sprint Phone)

N BASIN

3 of 7
Bill Date: Jul 07, 2017
Bill Period: Jun 04 - Jul 03, 2017

RECEIVED
JUL 11 2017
M4

Account Information

Account Name:
MACOMB CO CHAPATON
BASIN

Account Number:
299514228

Invoice Number:
299514228-170

Bill Date:
Jul 07, 2017

Bill Period:
Jun 04 - Jul 03, 2017

TIN Number:
84-1116272

ABA Number:
111-000-012

Current P.O. #:
03588

Previous P.O. #:
\$0.00

Last Bill

Previous Balance \$401.64
Payments - Thank you -\$401.64
Balance Forward \$0.00

Chg: 8 1/2 Mile Rtg
Date 7-11-17
Chief Deputy JP
Engineer(s) JA
Manager(s) _____
Coordinator(s) JP
Finance Officer MAM

Balance Forward \$0.00

This Bill By: M4

Plans \$236.88
Misc. Charges & Adjustments -\$45.00
Equipment \$299.94
Usage \$0.20
Sprint Surcharges* \$7.86
Government Taxes & Fees \$1.14
Charges This Bill \$501.02
92600 R 201-08
97600 R 299.94
PA036510

Charges This Bill \$501.02

Last three months (new charges)



Pay Online
sprint.com/mysprint

Pay by Phone
1-800-784-2608
(*3 from your Sprint Phone)

Pay by Mail
Return the form below with
a check payable to: Sprint

Please see the News and Notices section on page 2 for important information and changes to Sprint's policies. Any unpaid balance after the due date may be subject to a late payment charge per your contract.

Sprint surcharges are rates we choose to collect from you at our discretion to help defray certain costs, including but not limited to costs associated with government programs and network connections. Surcharges are not taxes or amounts we are required to collect from you by law. Surcharges may include, but are not limited to: Federal USF, Regulatory Charge, Administrative Charge, Gross Receipts Charge, and other charges. The amounts and components used to calculate surcharge amounts are subject to change.

Staff 7-25-17
Board 8-7-17

Data/Usage	Sprint Premium Services	Third Party Charges	Sprint Surcharges	Gov Taxes & Fees	Totals (\$)
.5698GB	-	-	1.31	0.19	24.98
-	-	-	1.31	0.19	24.98
-	-	-	1.31	0.19	24.98
-	-	-	1.31	0.19	24.98
-	-	-	1.31	0.19	24.98
-	-	-	1.31	0.19	24.98
5698GB	-	-	7.86	1.14	501.02

Total Due Jul 27th
\$501.02



425 Caredean Drive
Horsham, PA 19044
215-675-5800
www.wonderwarenorth.com

INVOICE

Invoice ID: PB67986
Date: 8/9/2017
Order No: 76100
F.O.B: Horsham, PA

RECEIVED
AUG 10 2017
BY: MH

Sold To
MACOMB COUNTY PUBLIC WORKS
ATTN: ACCOUNTS PAYABLE
21777 DUNHAM ROAD
CLINTON TOWNSHIP, MI 48036
USA

Ship To
MACOMB COUNTY PUBLIC WORKS
21777 DUNHAM ROAD
CLINTON TOWNSHIP, MI 48036
USA

CUSTOMER ID		CUSTOMER PO.		PAYMENT TERMS		FREIGHT TERMS	
MACOMB COUNTY		WCF RENEWAL		Net 30		Freight: Billed	
SALES REP. ID.		SHIPPING METHOD		SHIP DATE		INVOICE DUE DATE	
						9/8/2017	
QUANTITY		PART		DESCRIPTION		T	UNIT PRICE
ORD	SHP	BCK				X	EXTENDED PRICE

Q-SUPPORT WW CUSTOMER FIRST AGREEMENT CFA 100134 \$15,320.00

ORDER SPECIFICATIONS

SUB TOTAL: \$15,320.00 (USD)

TOTAL AMOUNT DUE: \$15,320.00 (USD)

PLEASE REFERENCE THIS INVOICE NUMBER ON YOUR CHECK AND REMIT TO:

Q-mation, Inc or Wonderware North
425 Caredean Drive
Horsham, PA 19044

FOR SPEED AND CONVENIENCE, PAYMENT MAY BE WIRED TO THE FOLLOWING ACCOUNT:

Bank Name: Wells Fargo
1977 Norristown Road
Maple Glen, PA 19002
Account Name: Q-mation, Inc
Account# 1559821747
Routing: 121000248
ABA (ACH): 031000503 / Swift: WFBIUS6S

WWN is not authorized or obligated to collect sales tax outside the state of Pennsylvania. Please note that the customer named above is solely responsible to timely remit the tax to the proper taxing authority.

chg: MIDD \$ 6587.60
OMID \$ 2144.80
8 1/2 Mile \$ 6587.60

Date 8.10.17
Chief Deputy _____
Engineer(s) JA
Manager(s) _____
Coordinator(s) _____
Finance Officer PCW

PAID 815 74.00

Income Statement
8.5 Mile Relief
As of July 31, 2017

	9-30-2016 Total Fund	10-1-16 to 7-31-17 O&M*
Revenues		2,393,501
Expenditures		1,189,914
Equity**	2,884,401	1,203,587

NOTES

Projected Reserves as of Sept 30, 2017	600,000
Projected required SRF repair & replacement reserve balance 9/30/17	1,296,075
Total	1,896,075

* Includes following Projects:

Sewer Rehab(SRF 5579-01)	Revenue	44,087
	Expenditures	37,902
	Net	6,185
	Remaining balance =	29,825
SAW Grant(1173-01)	Revenue	284,879
	Expenditures	346,986
	Net	(62,107)
	Remaining balance =	285,711

Major projects not yet completed in 2017

RTB Blower design
 2 quarters of personnel from county
 9 Mile flow meter
 1st collection of 2 for screen collection improvements
 Instrumentation all buildings
 Switch gear maintenance

** Broken out as follows:

Engineering carryover balance at 9/30/2016	190,000
Repair and Maintenance carryover at 9/30/2016	105,000
Equipment carryover balance at 9/30/2016	45,800
Required SRF repair & replacement reserve balance 9/30/16	1,036,860
Emergency Reserve	600,000
Due from SEMCWWDS included in revenue but not collected	550,000