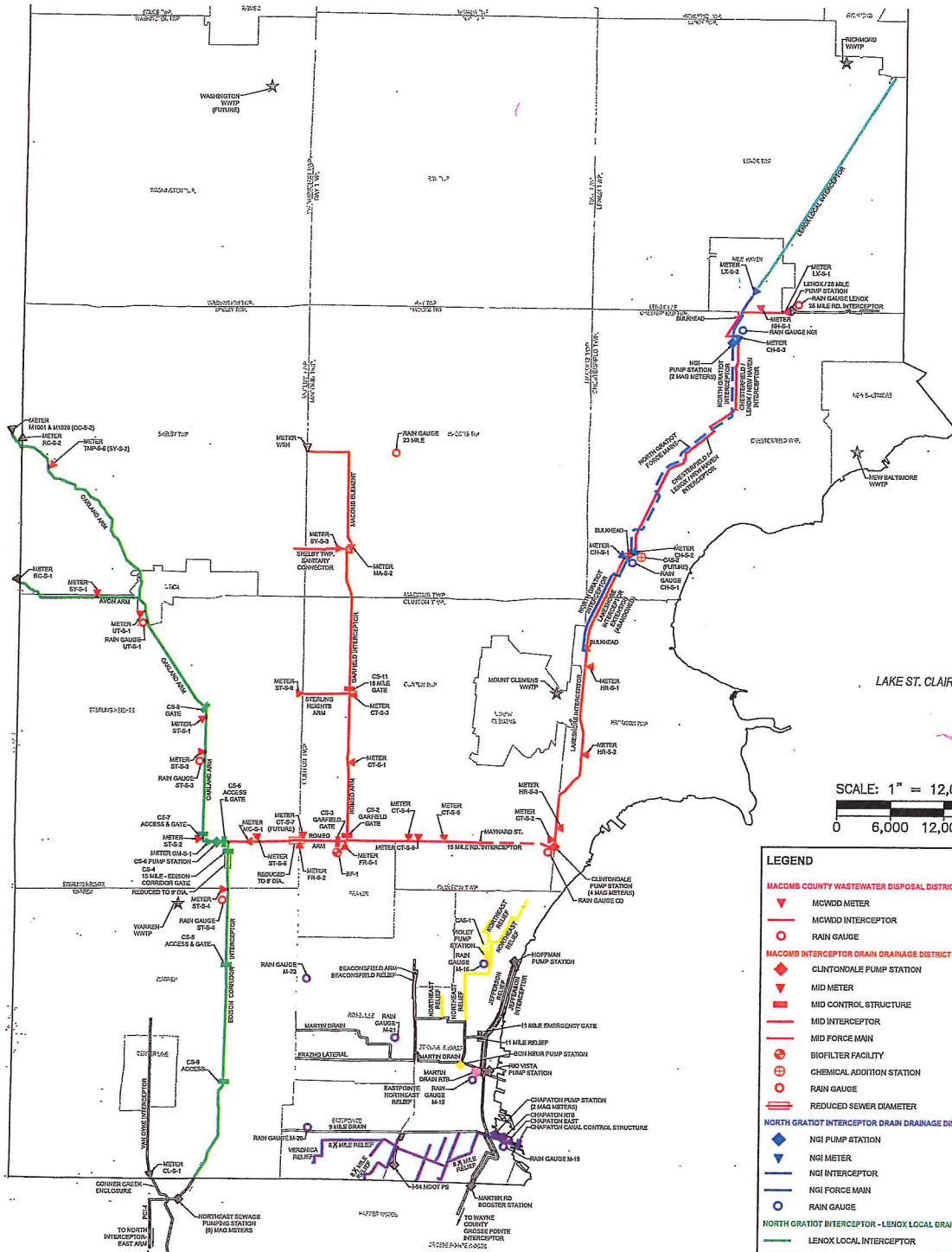


Miller
Santo
Klinefelt

EIGHT AND ONE-HALF MILE RELIEF DRAIN
INTRA-COUNTY DRAINAGE BOARD
SEPTEMBER 10, 2018
10:30 A.M.
AGENDA

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for September 10, 2018	
3. Approval of Minutes for August 13, 2018	3
4. Public participation	
5. Permit Update – Vince Astorino	
6. 2018-2019 Budget – Brian Baker	5
Motion: To approve the 2018-2019 Budget	
7. Consideration for approval of invoices (see attached)	22
8. Financial Report – Bruce Manning	37
9. Adjourn	

MACOMB COUNTY WASTEWATER SYSTEMS



SCALE: 1" = 12,000'
 0 6,000 12,000 24,000

LEGEND

- MACOMB COUNTY WASTEWATER DISPOSAL DISTRICT (MCWDD)**
 - MCWDD METER
 - MCWDD INTERCEPTOR
 - RAIN GAUGE
- MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT (MIDDD)**
 - CLINTONDALE 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 (NGBLDD)**
 - 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
- NORTH-EAST MACOMB COUNTY WASTEWATER DISPOSAL DISTRICT (SEMICWDS)**
 - SEMICWDS PUMP STATION
 - CHEMICAL ADDITION STATION
 - SEMICWDS INTERCEPTOR
- MARTIN SANITARY DIVERSION DRAINAGE DISTRICT (MSDDD)**
 - MARTIN DRAIN RETENTION TREATMENT BASIN
- OTHER SYSTEMS**
 - PUMP STATION
 - METER
 - WWTP
 - INTERCEPTOR

Candice S. Miller
 MACOMB COUNTY PUBLIC WORKS COMMISSIONER



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 August 13, 2018, at 10:47 A.M.

PRESENT: Candice S. Miller, Chair
Bryan Santo, Member
Veronica Klinefelt, Member

Also Present: Robert Mijac, Macomb County Board of Commissioners, Brian Baker, Chief Deputy, Vincent Astorino, P.E., Operations and Flow Manager, Jeff Bednar, P.E., Environmental Engineer, Bruce Manning, Financial Manager, Dan Heaton Public Relations Manager, Thomas Stockel, Construction Engineer, Madison Tanghe, Senior Secretary, Macomb County Public Works (MCPW); Jordan Scott, Sterling Heights Dept. of Public Works; Elizabeth Madson, Breck McCorory, Chesterfield Township Library

The meeting was called to order by the Chair, Candice Miller. The agenda was approved as presented.

Minutes of the meeting of July 9, 2018 were presented. A motion was made by Ms. Klinefelt, supported by Mr. Santo to approve the minutes as presented.

Adopted: YEAS: 3
NAYS: 0

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

The last major budgeted project this fiscal year is the designing proposal to add a second dry weather pump and replace the bar screens that protect the pumps from debris. \$1.25 million has been budgeted for the entire project. There were 5 proposals submissions with one disqualifying proposal due to improper submittal. Three proposals are all within one point from one another. After interviews, Hubbell, Roth & Clark, Inc. came out as the leading firm when costs are factored in.

A motion was made by Ms. Klinefelt, supported by Mr. Santo, to approve the design and engineering proposal for the Chapaton Dry-Weather Pump & Screen Improvements from Hubbell, Roth & Clark, Inc. for a not-to-exceed amount of \$110,908.

Adopted: YEAS: 3
NAYS: 0

The Chair presented the invoices totaling \$321,566.55 to the board for review and approval.

A motion was made by Mr. Santo, supported by Ms. Klinefelt, to approve the invoices as presented.

Adopted: YEAS: 3
NAYS: 0

A motion to receive and file the financial report given by Mr. Manning was made by Mr. Santo, supported by Ms. Klinefelt.

Adopted: YEAS: 3
NAYS: 0

There being no further business, it was moved by Mr. Klinefelt, supported by Mr. Santo, that the meeting of the Eight and One-half Mile Relief Drain Board be adjourned.

Adopted: YEAS: 3
NAYS: 0

The meeting was adjourned at 10:52 a.m.



Candice S. Miller, 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 August 13, 2018, 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.



Candice S. Miller, Chair
Macomb County Public Works Commissioner

DATED: 8/14/18

8.5 Mile Relief Drain (Chapaton)
Proposed 2018/19 Budget
Effective October 1, 2018
Executive Summary

Attached is the proposed 2018/19 Chapaton budget for the fiscal year beginning October 1, 2018. The budget is scheduled to be adopted at the September 10, 2018 8.5 Mile Relief Drain Board meeting. Eastpointe and St. Clair Shores both received a copy of the proposed budget on August 29th.

In summary, the proposed Chapaton budget funds improved operations and maintenance of our aging assets and projects that will further reduce combine sewer overflows and improve water quality. While the budget is increasing as expected, it has come in \$18,000 lower than the estimated amounts provided to the two communities in February 2018 and upon which their own budgets were established and subsequently approved.

MCPWO has made further improvements to the budget by reformatting the document to match the MIDD budget format, as well as providing a history of actual expenditures and a detailed explanation of each budget change.

As discussed last year, assessments are increasing due to new NPDES permit requirements and needed maintenance and repairs identified by the SAW grant. The SAW grant identified \$25 million of capital improvement needs over the next 20 years. This budget funds next year's capital needs and establishes a plan to continue needed repairs into the future.

Next year's budget funds the initial design costs for the two most cost-effective basin improvements as recommend by the Chapaton Basin Evaluation Study. These improvements will reduce the number of CSO's and improve water quality. \$1.0 million is budgeted for design costs for the relocation of the Chapaton Canal gates, which will provide an additional 10 million gallons of retention and remove 62 million gallons of overflows per year. \$500,000 is budgeted for the design of gates in the 8.5 Tunnel to provide an additional 15 million gallons of in system storage, thereby preventing 90 million gallons of overflows per year.

Funds are also budgeted for interior renovations and upgrades to the office and staff living quarters which are original to the 1968 building, the replacement of bar rack screen and new flow pump, a replacement camera and programmable logic controllers, the use of MIDD personnel when needed, and the re-allocation of County property insurance costs. \$1.3 million of carry-forward assessment funding from the prior year results in only a \$1.1 million increase in required assessments to fund the total \$2.4 million budget increase.

**8.5 MILE COMMUNITIES
TOTAL CHARGES
FY 2018 vs FY 2019**

Cost Category		2017/2018 Charge	2018/2019 Charge	Difference	% Change	Page #
1)	8.5 Mile Relief O&M/Charge Required Revenue	2,804,506	3,898,266	1,093,760	39.0%	2,4
2)	Debt	392,831	381,861	(10,970)	-2.8%	3
TOTAL		3,197,337	4,280,127	1,082,790	33.9%	

Communities	2017/2018 Charge	2018/2019 Charge	Difference	% Change
Eastpointe	1,737,263	2,325,590	588,327	33.9%
St. Clair Shores	803,450	1,075,539	272,089	33.9%
Michigan	512,752	686,396	173,644	33.9%
Macomb County	71,936	96,301	24,365	33.9%
Dept of Roads	71,936	96,301	24,365	33.9%
TOTAL	3,197,337	4,280,127	1,082,790	33.9%

**8.5 MILE DRAIN DRAINAGE DISTRICT
2018-2019 CHARGES
EFFECTIVE OCTOBER 1, 2018**

	Total Annual	Monthly	Eastpointe	St. Clair Shores	Michigan	Macomb County	Dept of Roads	Total
			54.33%	25.13%	16.04%	2.25%	2.25%	100.00%
8.5 MILE RELIEF CHARGES								
8.5 Mile Relief O&M	3,898,266	324,855	176,509	81,632	52,097	7,309	7,309	324,856
O&M Total			2,118,108	979,582	625,157	87,709	87,709	3,898,266
Debt Total ⁽¹⁾			207,482	95,957	61,239	8,592	8,592	381,861
Grand Total			2,325,590	1,075,539	686,396	96,301	96,301	4,280,127

NOTE

1) The debt will be invoiced separate from the O&M. Generally it will be billed in February and August.

DEBT WORKSHEET

8.5 MILE RELIEF 2018-2019 DEBT WORKSHEET

Not part of O&M invoice. Debt will be invoiced separately every 6 months

No paying agent fees because all SRF bonds

DEBT SERVICE	Principal	Interest	Total	Eastpointe	St. Clair Shores	Michigan	Macomb County	Dept of Roads	Total
SRF 5579-01	15,000	8,896	23,896	12,983	6,005	3,832	538	538	23,896
SRF 5460-01	20,000	7,500	27,500	14,942	6,910	4,410	619	619	27,500
SRF 5393-01	55,000	21,840	76,840	41,751	19,309	12,323	1,729	1,729	76,840
SRF 5306-01	190,000	63,625	253,625	137,806	63,733	40,673	5,707	5,707	253,625
TOTAL	280,000	101,861	381,861	207,482	95,957	61,239	8,592	8,592	381,861

NOTE

SEMCWWDS and Martin Sanitary are included on separate budget

**8.5 MILE RELIEF
Operations Maintenance
Budget to Actual**

Description	Page #	Actual 2016/2017	Actual 5/31/2018	Projected 9/30/2018	Budget 2017/2018	Budget 2018/2019	Budget Change	% Change
EXPENSE								
Application/Permit Fee	5	6,140	3,000	3,000	3,000	3,000	0	0.0%
Dues, Training, Conf, Subs.	6	5,510	4,057	4,500	1,250	5,750	4,500	360.0%
Engineering	7	82,148	17,238	35,000	472,375	2,425,000	1,952,625	413.4%
New Equipment	8	21,953	11,428	80,000	175,300	161,500	(13,800)	-7.9%
Office Supplies	9	640	296	750	1,000	750	(250)	-25.0%
Operating Supplies	10	75,482	62,941	83,550	82,800	82,750	(50)	-0.1%
Other Professional Svcs	11	5,223	12,796	51,000	15,000	47,920	32,920	219.5%
Personnel Services	12	759,058	555,131	890,000	801,626	875,405	73,779	9.2%
Repair & Maintenance	13	358,011	292,095	342,095	1,598,065	1,810,830	212,765	13.3%
Scada System	14	109,133	4,032	80,000	114,000	190,073	76,073	66.7%
Utilities	15	146,560	94,106	160,000	191,300	284,148	92,848	48.5%
Total Expense		1,569,858	1,057,120	1,729,895	3,455,716	5,887,126	2,431,410	70.4%
REVENUE								
Interest Earned	16	4,571	17,584	22,000	4,500	26,000	21,500	477.8%
Other Revenue	16	1,626	4,128	15,000	1,500	1,500	0	0.0%
Personnel Services	16	57,917	45		15,000	0	(15,000)	-100.0%
8.5 O&M/Charge Required Revenue	2	1,988,987	2,599,602	2,804,506	2,804,506	3,898,266	1,093,760	39.0%
Carryforward	16				614,850	1,946,000	1,331,150	216.5%
Rental Fee	16	15,363	10,242	15,360	15,360	15,360	0	0.0%
State Grants and SRF Bonds		425,025	0		0	0	0	0.0%
Total Revenue		2,493,489	2,631,601	2,856,866	3,455,716	5,887,126	2,431,410	70.4%

Reserve 3,103,846 4,229,151¹ 2,571,391¹

Additional Notes

1) Broken out as follows:

5 year maintenance of switchgear	38,000	38,000
9 Mile Dewatering Gate	5,000	
Canal seawall sheeting	5,000	
CHA-EB Chem Flow Meter - Basin Gates (Pumps 4-5)	10,000	
Chapaton East disinfection system improvement	50,000	
Design of Improvements	50,000	
Disinfection Systems Improvement Study	120,000	
Driveway grate	12,000	
Electrical Upgrade Program	10,000	
Emergency Reserve	602,861	602,861
Flow Meter	150,000	
HVAC design	60,000	
Instrumentation all buildings	30,000	
Outfall Gate Reserve	7,000	7,000
Painting interior and garage facade	20,000	
Pump Station Exterior Wall Upgrades-Basin Kneewall	4,000	
Pumping and screening improvements	1,250,000	
RTB/PS Ventilation Design	60,000	
Sampling Pumps	2,500	
Scada Reserve	80,000	109,025
Security Fence Structures Around Gate Actuators	60,000	
Spare Rain Gauge	2,500	
SRF Replacement Reserve	1,555,290	1,814,505
Switch gear(Label and maintenance)	45,000	
	<u>4,229,151</u>	<u>2,571,391</u>

**FY 2018-2019
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET**

FUND:	0017	P/Y BUDGET:	\$3,000
ACTIVITY:	Application/Permit Fee	REQUEST:	\$3,000
		INC/(DEC.):	\$0

ACCOUNT EXPLANATION:

DESCRIPTION	18/19	17/18
1) Annual NPDES Permit	3,000	3,000

INCREASE/DECREASE EXPLANATION:

50/50 split with Martin

**FY 2018-2019
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET**

FUND:	0017	P/Y BUDGET:	\$1,250
ACTIVITY:	Dues, Training, & Conf	REQUEST:	\$5,750
		INC/(DEC.):	\$4,500

ACCOUNT EXPLANATION:

DESCRIPTION	18/19	17/18
1) Certification, Licenses, Training	3,000	1,000
2) Professional Dues and Subscriptions	250	250
3) NexGen Renewal	2,500	0
Total	5,750	1,250

INCREASE/DECREASE EXPLANATION:

- 1) Operators state certified for RTBs and the beginning of annual confined space training.
- 3) Annual renewal for the asset management software. Cost is split with MIDDD, SEMCWWDS and Martin, as well. Annual renewal funding not included in prior year budget.
- 1-2) Split with Martin and SEMCWWDS.

**FY 2018-2019
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET**

Fund: 0017
Activity: Engineering

P/Y BUDGET: \$472,375
REQUEST: \$2,425,000
INC/(DEC.): \$1,952,625

ACCOUNT EXPLANATION:

	DESCRIPTION	18/19	17/18
cf	1) Chapaton East Disinfection System Improvement	50,000	50,000
cf	2) Various Design/Study projects-See note below	240,000	300,000
cf	3) Design of Improvements	50,000	50,000
	4) As Needed Engineering	75,000	
	5) Chapaton Improvements-Office Space	250,000	
	6) TRC Basin Equipment	100,000	
	7) 9 Mile & 8 1/2 Mile Rehab	100,000	
	8) Basin Structural Integrity Study	60,000	
	9) Basin Expansion Design	1,000,000	
	10) In-System Storage Design(Gates on 8.5 Tunnel)	500,000	
	11) Condition Assessment-Moved to Flow Meter on Page 8		50,000
	12) Design - CHA-EB Inside Lighting(Completed)		8,625
	13) Design - CHA-PS Wet Well Hatch		6,250
	14) Design - Replace Wood Hatch (Trash Rack/Dewater Gate)		7,500
Total		<u>2,425,000</u>	<u>472,375</u>

INCREASE/DECREASE EXPLANATION:

2) a) RTB/PS Ventilation Design-\$120,000. This includes \$60,000 from the HVAC Design project

On hold until completion of Basin Segmentation Study

b) Disinfection Systems Improvement Study-\$120,000. This includes \$60,000 from the Basin Segmentation Study

Estimated completion date is February 2019

4) New item for 2018/2019 for unexpected engineering that may arise during the year. This will be

bid out to assure we receive the best price. Split with SEMCWWDS and Martin.

5) \$250,000 will be used to update 24/7 staff living quarters. The living quarters is still the original design.

6) Part of OHM study to produce better water quality

7) Results of SAW grant found tunnel next to Chapaton is in need of immediate repair. 4 and 5 ratings were found during inspection.

8) Basin Ceiling/Parking Lot Deck. Currently seeing separation.

9) This project is to put together design drawings for bidding of the project to add additional storage within the canal east of the current

outfall gates at the Chapaton Retention Basin (RTB). A study was performed to evaluate different expansion options for the Chapaton RTB

and this design project will further expand on the results from that work

10) This project is to put together design drawings for bidding of the project to add real-time control structures within the 8 1/2 Mile

Interceptor which will be used to provide additional storage capacity. A study was performed to evaluate different expansion options

for the Chapaton RTB and this design project will further expand on the results from that work.

11) Was previously budgeted for condition assessment but that was completed using SAW

grant so now the \$50,000 will be used for flow meter

13-14) Will happen with pump and screening improvements-Page 13

**FY 2018-2019
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET**

FUND: 0017
ACTIVITY: New Equipment

P/Y BUDGET: \$175,300
REQUEST: \$161,500
INC/(DEC.): (\$13,800)

ACCOUNT EXPLANATION:

DESCRIPTION	18/19	17/18
cf 1) Flow Meter	150,000	100,000
cf 2) Two Spare Rain Gauges	5,000	2,500
cf 3) Sampling Pumps	2,500	2,500
4) Misc(lab equip, bldg instrumentation, etc)	4,000	3,000
5) Xmark Lawn Mower		14,000
6) Deck Mower Attachment		2,500
7) Printer		1,000
8) Canal Sampler-Completed		25,800
9) Water Heater - East Building Mechanical Room Completed		3,000
10) Trailer-Purchased		5,000
11) Flushing Chamber C,D Exterior lights Completed		1,000
12) Replace disinfection mag meters-Completed		15,000
Total	<u>161,500</u>	<u>175,300</u>

INCREASE/DECREASE EXPLANATION:

1) \$50,000 was reallocated from Condition Assessment project from page 7 note 11

2) One additional spare rain gage will be purchased

5-7) No longer required

**FY 2018-2019
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET**

FUND: 0017
ACTIVITY: Office Supplies

P/Y BUDGET: \$1,000
REQUEST: \$750
INC/(DEC.): (\$250)

ACCOUNT EXPLANATION:

DESCRIPTION	18/19	17/18
Toner, pens, paper, posters computer supplies, etc	750	1,000

INCREASE/DECREASE EXPLANATION:

**FY 2018-2019
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET**

FUND: 0017
ACTIVITY: Operating Supplies

P/Y BUDGET: \$82,800
REQUEST: \$82,750
INC/(DEC.): (\$50)

ACCOUNT EXPLANATION:

DESCRIPTION	18/19	17/18
1) Sodium hypochlorite	70,000	70,000
2) Personal protective equipment	2,000	3,000
3) Clothing for operations staff	400	1,200
4) Laboratory supplies required by NPDES permit	5,000	7,000
5) Equipment Rental	1,000	500
6) Postage	100	100
7) Fuel	2,250	0
8) Misc	2,000	1,000
Total	<u>82,750</u>	<u>82,800</u>

INCREASE/DECREASE EXPLANATION:

3) Split evenly with SEMCWWDS and Martin.

7) Previously fuel was being charged to the County general fund. It is now being properly allocated to the correct drainage district. Will be split amongst SEMCWWDS & Martin

8) Increased cost because of station operators performing more maintenance

FY 2018-2019
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET

FUND:	0017	P/Y BUDGET:	\$15,000
ACTIVITY:	Other Professional Svcs	REQUEST:	<u>\$47,920</u>
		INC/(DEC.):	\$32,920

ACCOUNT EXPLANATION:

DESCRIPTION	18/19	17/18
1) Contract Laboratory for Permit Overflow	12,000	15,000
2) Legal	1,500	
3) Insurance-Liability	7,000	
4) Insurance-Property	27,420	
	47,920	15,000

INCREASE/DECREASE EXPLANATION:

3) Drainage Board approved liability insurance for the District in 2018

4) Property insurance is covered under the county policy. The county in the past

would pay for the insurance but now they invoice the various drainage districts

for their portion.

FY 2018-2019
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET

FUND: 0017
ACTIVITY: Personnel

P/Y BUDGET: \$801,626
REQUEST: \$875,405
INC/(DEC.): \$73,779

ACCOUNT EXPLANATION:

DESCRIPTION	18/19	17/18
1) Pump Station Operators(6 FT operators and 2 PT)	416,115	452,765
2) Pump Station Standby	9,750	10,044
3) Operations Manager	90,900	87,975
4) Assistant Operations Mgr	68,881	28,054
5) SCADA Manager Support	37,311	9,000
6) SCADA System Specialist (PT)	16,560	0
7) Engineering Support	91,860	54,863
8) Clerical Support	11,800	11,590
9) Overtime	41,250	108,171
10) Accounting	6,600	6,336
11) Administrative	34,379	32,828
12) MIDDD Field Operator Reimbursement	50,000	0
Total	875,405	801,626

INCREASE/DECREASE EXPLANATION:

- 1) Decrease relates to internal service cost now being included in utility section of the budget and having one vacant position.
- 4) In 17/18 this was only for 1/2 year
- 1-4) 75% of Chapaton staff is charged to 8.5 Mile Relief District. Remaining 25% is split between SEMCWWDS(10%) and Martin(15%).
- 6) Newly created position
- 7) Two engineers performing 8.5 Mile duties. Previously it was only one.
- 5-6) These two positions were previously understated in prior budgets.
- 5-7) These positions will spend 37.5% of their time on 8.5 Mile Relief, 5% at SEMCWWDS, and 7.5% at Martin. The remaining 50% is with MIDDD. 8.5 Mile will pay MIDDD for these positions.
- 9) Decrease is due to internal services cost now being shown separately in the utilities section of budget. Previously part of this costs was included in overtime budget.
- 11) Cross charge for administrative personnel. 5.25% is charged to 8.5 Mile, the remaining is split between SEMCWWDS, Martin, MIDDD, and General.
- 12) Field Operators from the MIDDD will provide training and other assistance to the 8.5 Mile Drainage District
- 8-10) 75% of Chapaton staff is charged to 8.5 Mile Relief District. Remaining 25% is split between SEMCWWDS(10%) and Martin(15%).

FY 2018-2019
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET

FUND: 0017
ACTIVITY: Repair & Maintenance

P/Y BUDGET: \$1,598,065
REQUEST: \$1,810,830
INC/(DEC.): \$212,765

ACCOUNT EXPLANATION:

DESCRIPTION		18/19	17/18
<u>Annual Items</u>			
	1) Wet well vacator	16,000	32,000
	2) Repair and maintenance	78,000	90,850
	3) Lawn Mowing	6,615	0
	4) Replacement Reserve(SRF 5306,5393,5460)-From CTI study	259,215	259,215
	Sub-total	<u>359,830</u>	<u>382,065</u>
<u>One Time</u>			
c/f	5) Switch gear(Label and maintenance)	45,000	45,000
c/f	6) Painting interior and garage facade	20,000	20,000
c/f	7) Instrumentation all buildings	30,000	30,000
c/f	8) Canal seawall sheeting	5,000	5,000
c/f	9) driveway grate	12,000	12,000
c/f	10) Pumping and screening improvements	1,250,000	1,000,000
c/f	11) CHA-EB Chem Flow Meter - Basin Gates (Pumps 4-5)	10,000	10,000
c/f	12) Security Fence Structures Around Gate Actuators	60,000	60,000
c/f	13) Electrical Upgrade Program	10,000	10,000
c/f	14) Pump Station Exterior Wall Upgrades-Basin Kneewall	4,000	4,000
c/f	15) 9 Mile Dewatering Gate	5,000	5,000
	16) Access ring on B3 manhole		15,000
	Sub-total	<u>1,451,000</u>	<u>1,216,000</u>
	Grand Total	<u><u>1,810,830</u></u>	<u><u>1,598,065</u></u>

INCREASE/DECREASE EXPLANATION:

1) Only required once a year.

2) Decreasing because in house staff now performing more maintenance.

3) Lawn mowing now contracted by third party

10) The replacement of the bar screen rack in the wet-well where the 8.5 Mile Relief enters the station,

and also the addition of a new flow pump. \$250,000 was collected in FY 2017 and \$1,000,000 in FY 2018

16) This will now be part of the pump and screening project.

**FY 2018-2019
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET**

FUND: 0017
ACTIVITY: SCADA

P/Y BUDGET: \$114,000
REQUEST: \$190,073
INC/(DEC.): \$76,073

ACCOUNT EXPLANATION:

DESCRIPTION	18/19	17/18
1) Network maintenance contract		27,750
2) Wonderware-8.5 Portion		75,000
3) Emergency Repair	2,000	11,250
4) Network Maintenance (State required tower inspections etc)	17,015	
5) Future costs of Server Upgrade - Life Cycle per year	29,025	
6) UPS battery replacements	1,000	
7) Wonderware Software Support Renewals September 2018	5,089	
8) Sonicwall Support Renewals (3 year extension)	2,370	
9) VMWare support renewal (3 year extension)	4,450	
10) VEEAM support renewal (1 year extension)	293	
11) Dell SANs and DR4100 renewal (2 year extension)	9,865	
12) Dell servers and switch renewal (2 year extension)	6,540	
13) Comcast Business Service for Chapaton	917	
14) Comcast Business Service for Command Center	502	
15) Comcast Business Service for Clintondale	872	
16) Cell modem service (Sprint) 9 units	135	
17) Camera replacement program at Chapaton West	70,000	
18) PLC Replacements at Chapaton East	40,000	
Total	190,073	114,000

INCREASE/DECREASE EXPLANATION:

4-18) A detailed review of all SCADA costs was completed by the MCPWO engineering department.
 It was determined that all SCADA costs were not itemized in budget. Beginning with the 18/19 budget a more detailed report is now being provided. Costs have been apportioned to the correct facility

2) Detail as follows:

\$15,000 license renewal
 \$30,000 maintenance
 \$30,000 life cycle

Now included in 4-16

3) More of the repairs will be performed by in house SCADA staff.

4 & 6) In previous budgets this was included under item #1 and part of item #2. The total for past budgets was

Network maintenance contract	\$27,750
maintenance	\$30,000

Because of better efficiencies, the overall maintenance budget has decreased.

5) In past budgets this was included as part of item #2 for \$30,000

7-16) In past budgets these items were part of item #2 for \$15,000

17) Current camera is outdated and needs to be replaced with digital

18) Programmable Logic Controls nodes in SCADA system that needs to be replaced periodically.

The SCADA staff does each station at different times.

FY 2018-2019
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET

FUND: 0017
ACTIVITY: Utilities

P/Y BUDGET: \$191,300
REQUEST: \$284,148
INC/(DEC.): \$92,848

ACCOUNT EXPLANATION:

DESCRIPTION	18/19	17/18
1) Electric Service	110,000	140,000
2) Consumers Energy	15,000	12,000
3) Water	22,000	22,000
4) Internet Provider	3,000	8,000
5) Waste Hauler	1,500	1,800
6) Weather Radar	2,000	2,500
7) Internal service cost	126,648	0
8) Telephone(Land & Cell)	4,000	5,000
Total	284,148	191,300

INCREASE/DECREASE EXPLANATION:

- 1) Budget is restated based on current usage
-
- 4) Decreased due to staff negotiating a lower cable rate and some costs moving to SCADA.
-
- 7) In prior years was expensed and budgeted with payroll. This item will now be itemized
-
- separately to better reflect costs. This number represents the costs the county Finance
-
- charges for items such as telephones, Treasurer's Office, car insurance, IT, and more.
-
- Split with Martin and SEMCWWDS
-

Revenue Detail

Revenue	2018/2019 BUDGET	2017/2018 BUDGET
Interest Earned	26,000	4,500
Other Revenue	1,500	1,500
Personnel Services	0	15,000
Carryforward ⁽¹⁾	1,946,000	614,850
Rental Fee	15,360	15,360
Grants and Bond Proceeds		425,025
Total	1,988,860	1,076,235

NOTES

1) Remaining projects that were charged in prior years that should be completed in 18/19	
9 Mile Dewatering Gate	5,000
Canal seawall sheeting	5,000
CHA-EB Chem Flow Meter - Basin Gates (Pumps 4-5)	10,000
Chapaton East disinfection system improvement	50,000
Design of Improvements	50,000
Disinfection Systems Improvement Study	120,000
Driveway grate	12,000
Electrical Upgrade Program	10,000
Flow Meter	150,000
HVAC design	60,000
Instrumentation all buildings	30,000
Painting interior and garage facade	20,000
Pump Station Exterior Wall Upgrades-Basin Kneewall	4,000
Pumping and screening improvements	1,250,000
RTB/PS Ventilation Design	60,000
Sampling Pumps	2,500
Security Fence Structures Around Gate Actuators	60,000
Spare Rain Gauge	2,500
Switch gear(Label and maintenance)	45,000
TOTAL	1,946,000

EIGHT AND ONE-HALF MILE RELIEF DRAIN - 9/10/18

Funding Source	Apportionment	Manager	Vendor	Amount	Invoice Detail	Project Summary	Project Balance
8 1/2 Mile Relief	Chapter 20 State of MI - 16.04% County of Macomb - 2.25% Dept. of Roads - 2.25% Eastpointe - 54.33% St. Clair Shores - 25.13%	Manning	Bank of New York Mellon, N.A.	\$ 312,216.13	Principal & Interest Payments on SRF Loans	2008 Chapaton P.S. Improvements 2010 Chapaton P.S. Improvements 2011 Chapaton P.S. Improvements 2014 Sewer Rehabilitation	
		Astorino	DE-CAL, Inc.	\$ 575.46	Invoice #WO18250241 - 7/27/18	Repair Valve/Pipe in Crews' Quarters - Chapaton RTB	
		Astorino	Jones Chemicals, Inc.	\$ 4,152.80	Invoice #765659 - 8/9/18	Hypochlorite Solution used in disinfection process as required by NPDES Permit	
		Astorino	Jones Chemicals, Inc.	\$ 4,239.34	Invoice #767338 - 8/28/18	Hypochlorite Solution used in disinfection process as required by NPDES Permit	
		Astorino	Kont, Inc.	\$ 624.78	Invoice #959012024 - 8/1/18	Elevator - Quarterly Maintenance	
		Astorino	Macomb County Dept. of Roads	\$ 516.35	Invoice #301054 - 8/9/18	Monthly Gas	
		Astorino	Macomb Interceptor Drain	\$ 64,142.66	Invoice #8056-2018 - 8/10/18	Personnel Reimbursement - 6/30/17 - 7/13/18	
		Astorino	Macomb Interceptor Drain	\$ 4,392.52	Invoice #065-18 - 7/14/18 - 8/10/18	Personnel Reimbursement	
		Astorino	OHM	\$ 2,815.00	Invoice #195311 - 7/10/18	Chapaton TRC Monitoring	\$ 17,185.00
		Astorino	OHM	\$ 3,953.75	Invoice #196167 - 8/9/18	Chapaton TRC Monitoring	\$ 13,231.25
		Astorino	Tetra Tech, Inc.	\$ 35,696.70	Invoice #51341192 - 8/9/18 Engineering Services - ending 7/27/18	Chapaton Expansion Study	\$ 51,070.97
	(Closing date 2/2019)	Astorino	Wade Trim	\$ 7,702.50	Invoice #2012406 - 8/28/18 Engineering Services - 7/29/18 - 8/25/18	Basin Segmentation/Disinfection System Study	\$ 96,391.25

\$ 441,027.99

Michigan Finance Authority State Revolving Funds



Chg: 8 1/2 Mile Ref

INVOICE

PA 040312

Date: 8-13-18
 Chief Deputy: [Signature]
 Manager: [Signature]
 Credit Officer: [Signature]
 Finance Officer: [Signature]

Mr. Bruce Manning,
 8 1/2 Mile Relief Drain Drainage District
 21777 Dunham Road
 Clinton Township, MI 48036
 Phone: (586) 307-8279 Ext: Fax: (586) 469-5933
 Email: bruce.manning@macombgov.org

Due Date	Project Number	ID	Loan Commitment	Principal	Interest	Total
09/24/2018	5306-01/Final	CW	\$4,025,000.00	\$190,000.00	\$33,000.00	\$223,000.00
09/24/2018	5393-01*/Final	CW	\$1,246,579.00	\$55,000.00	\$10,919.74	\$65,919.74
09/24/2018	5460-01*/Final	CW	\$418,833.00	\$0.00	\$3,754.31	\$3,754.31
09/24/2018	5579-01/Final	CW	\$418,366.00	\$15,000.00	\$4,542.08	\$19,542.08
				TOTAL AMOUNT DUE:	\$52,216.13	\$312,216.13

If you have any questions please contact Nichole Dorr at 517-335-0525

If you have changes to the contact/billing information please Email those changes to dorrn@michigan.gov.

Below please find three methods of payment to the Michigan Finance Authority

Preferred Method of Payment

Payment via Federal Wire Transfer for ALL Loan Types:

WIRE transfers MUST be initiated by 10:00 a.m. on

09/24/2018 and sent to:

The Bank of New York Mellon, N.A.

ABA: 021-000-018

A/C: 3919348400

Reference: 5708-MFA

Please note, the Reference information must be included on the wire transfer.

Staff 8-23-18
10:10 AM 9.10.18

Payment via ACH Transfer for ALL Loan Types:

To allow for processing time ACH transfers MUST

be initiated by 09/20/2018 and sent to:

The Bank of New York Mellon, N.A.

ABA: 021-000-018

A/C: 8900626003

Reference: 5708-MFA

Please note, the Reference information must be included on the ACH transfer.

Payment By Check For ALL Loan Types

To allow for processing time checks must be

RECEIVED by 09/17/2018

For proper credit please include a copy of this

invoice and note the reference 5708-MFA

on the check. Please mail your payment to:

The Bank of New York Mellon, N.A.

ATTN: Pooled Finance Unit - Caitlin Umberger

10161 Centurion Parkway N.

Jacksonville, FL 32256



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

RECEIVED
 AUG 07 2018
 MH

Service Invoice

Invoice #: WO18250241

Date: 07/27/2018

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: Cliff Wilkerson	Due Terms: 30DY
--------------------	----------------------------------	------------------------

Assembly#	Part#	Description	Quantity	Price	Ext Price	Sales Tax
		See Attached	1.0000	575.460000	575.46	N

Notes:
 See work order for details

Chg: 8 1/2 Mile

Date	<u>8.7.18</u>
Chief Deputy	<u>AB</u>
Engineer(s)	<u></u>
Manager(s)	<u>WA</u>
Coordinator(s)	<u>BD</u>
Finance Officer	<u>GA</u>

PA040253 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: \$ 575.46

*Staff 8-21-18
 Board 9-10-18*

CHAPATON RETENTION TREATMENT BASIN AND PUMP STATION

**23001 NINE MILE ROAD
ST. CLAIR SHORES, MI 48080**

PURCHASE ORDER

BUDGET EXPENSE # 77500 **FILE #** 1519-3-916

DATE ORDERED: 7/27/18 **PURCHASE ORDER #** _____

DATE RECEIVED: 7/27/18 **SELLER'S INVOICE #** WO18250241

NAME OF DRAIN: 8 ½ Mile Relief

NAME OF PRODUCT, REASON FOR PURCHASE AND LOCATION USED: _____

Repair leaky toilet valve/pipe in crews' quarters at Chapaton RTB

COMPANY ORDER PLACED WITH: DE-CAL, Inc.

AMOUNT: \$575.46



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 #
08/09/2018	765659
Date Shipped	Order/BOL #
08/09/2018	564511

Customer Number
 21543215

RECEIVED
 AUG 10 2018
 MH

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 Pete	Destination	Delivered	NORTH												
Release #	Ship Via	Terms	Due Date												
	JCI	N 30	09/08/2018												
Units	Package	Product Name	Total Quantity												
4,588.00	1 Gal Bulk	HYPOCHLORITE SOLUTION, SS150 1201-001 BULK (\$85 Stop Fee) (+ fsc)	4,588.0000/Gal												
			0.9000 /Gal												
			4,129.20												
General Remarks:	<> EMAIL INVOICE TO: michelle.houvener@macombgov.org <> OUTSIDE CARRIER: HAROLD MARCUS NET WEIGHT:46,800 FSC														
	Fuel Surcharge		23.60												
<p>Chg: 8 1/2 Mile</p> <table border="1"> <tr> <td>Date</td> <td>8.10.18</td> </tr> <tr> <td>Chief Deputy</td> <td>AB</td> </tr> <tr> <td>Engineer (s)</td> <td></td> </tr> <tr> <td>Manager (s)</td> <td>JA</td> </tr> <tr> <td>Coordinator (s)</td> <td>DD</td> </tr> <tr> <td>Finance Officer</td> <td>btm</td> </tr> </table> <p>PA040300 74200</p>		Date	8.10.18	Chief Deputy	AB	Engineer (s)		Manager (s)	JA	Coordinator (s)	DD	Finance Officer	btm		
Date	8.10.18														
Chief Deputy	AB														
Engineer (s)															
Manager (s)	JA														
Coordinator (s)	DD														
Finance Officer	btm														

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Total: **4,152.80**

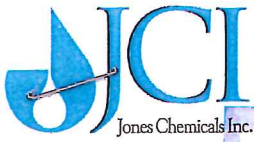
Remit To: JCI Jones Chemicals, Inc.
 PO Box 12549
 Newark, NJ 07101-3550 USA

PLEASE PAY
 THIS AMOUNT



JCI Welcomes payments via ACH, EFT and WIRE

Staff 8-23-18
 Board 9-10-18



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@jcichem.com

Inv Date	Invoice #
08/28/2018	767338
Date Shipped	Order/BOL #
08/28/2018	566087

Customer Number
21543215

RECEIVED
 AUG 29 2018
 MH

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-PETE	Destination	Delivered	NORTH
Release #	Ship Via	Terms	Due Date
	JCI	N 30	09/27/2018
Units	Package	Product Name	Total Quantity
4,689.00	1 Gal Bulk	HYPOCHLORITE SOLUTION, SS150 1201-001 BULK (\$85 Stop Fee) (+ fsc)	4,689.0000/Gal
			0.9000 /Gal
			4,220.10
General Remarks: <> EMAIL INVOICE TO: michelle.houvener@macombgov.org <> OUTSIDE CARRIER: MARCUS NET WEIGHT: 47400 FSC			
		Fuel Surcharge	19.24
<p>Chg: 8 1/2 Mile Ref</p> <p>Date 8-29-18</p> <p>Chief Deputy <u>AB</u></p> <p>Engineer(s) _____</p> <p>Manager(s) <u>US</u></p> <p>Coordinator(s) <u>BT</u></p> <p>Finance Officer <u>BHM</u></p>			
<p>PA010490 74200</p>			

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Total: 4,239.34

PLEASE PAY THIS AMOUNT



Remit To: JCI Jones Chemicals, Inc.
 PO Box 12549
 Newark, NJ 07101-3550 USA

JCI Welcomes payments via ACH, EFT and WIRE

Staff 9-4-18
 Board 9-10-18

INVOICE



Invoice number: 959012024 Invoice Date: 08/01/2018 Customer PO No: KONE Order No: N40092539 Billing Type: YMIO Date work performed: 10/31/2018	Area Office: DETROIT - 190 11864 Belden Ct Livonia MI 48150-1459 Ph: 734-513-6944 Fax: 734-513-6948	KONE Inc., Federal 36 2357423
Bill To: MACOMB COUNTY PUBLIC WORKS 23001 9 MILE RD SAINT CLAIR SHORES MI 48080-1576	Location/Project: VARIOUS LOCATIONS	
Payment Terms: Net 10		

This invoice is for maintenance coverage per your agreement with KONE Inc. Billing period is 08/01/2018 to 10/31/2018.

Contract# N40092539 CHAPATON RETENTION BASIN CHAPATON RETENTION BASIN 23001 9 MILE RD SAINT CLAIR SHORES MI 48080 USA	624.78
Contract# N40092539 VIOLET PUMP STATION VIOLET PUMP STATION 30801 GREATER MACK AVE SAINT CLAIR SHORES MI 48082 USA	166.59
Subtotal	\$ 791.37
Total Invoice Amount	\$ 791.37

Chg: 8 1/2 Mile

8-7-18

Date	8-7-18
Chief Deputy	AB
Engineer(s)	
Manager(s)	WA
Coordinator(s)	BD
Finance Officer	DA

PA 040259 77500

Invoices not paid within 30 days are subject to a service charge of 1.5% per month, or the maximum permitted by law

Please return this portion with your payment

PAYMENT ADVICE

We also accept VISA/Mastercard or EFT payments



Payer: MACOMB COUNTY PUBLIC WORKS 23001 9 MILE RD SAINT CLAIR SHORES MI 48080-1576	Invoice number: 959012024 Invoice Date: 08/01/2018 Customer Number: N273080 KONE Order No: N40092539 Area Office No: U190 Billing Type: YMIO
Remit to: KONE Inc P O BOX 3491 CAROL STREAM, IL 60132-3491	Amount paid if different than invoice amount: \$ INVOICE AMOUNT: \$ 791.37

Use this address for payments only. Direct calls and area correspondence to our area office above.

Staff 8-21-18

Board 9-10-18

CHAPATON RETENTION TREATMENT BASIN AND PUMP STATION

**23001 NINE MILE ROAD
ST. CLAIR SHORES, MI 48080**

PURCHASE ORDER

BUDGET EXPENSE # _____ FILE # 1519-2-834/1517-1-4200-834

DATE ORDERED: 8/1/18 PURCHASE ORDER # _____

DATE RECEIVED: 8/1/18 SELLER'S INVOICE # 959012024

NAME OF DRAIN: 8 ½ Mile Relief & SEMCWWDS

NAME OF PRODUCT, REASON FOR PURCHASE AND LOCATION USED: _____

Quarterly elevator maintenance at Chapaton RTB and Violet P.S.

COMPANY ORDER PLACED WITH: Kone, Inc.

AMOUNT: \$624.78 – 8 ½ Mile Relief
\$166.59 - SEMCWWDS



MACOMB COUNTY DEPARTMENT OF ROADS
117 South Groesbeck
Mt. Clemens, MI 48043-0000

INVOICE

Period Ending - 07/31/2018

Phone: 586-463-8671

0004
County of Macomb
120 North Main Street, 2nd Floor
Mount Clemens, MI 48043-0000

PAY FROM THIS INVOICE

Invoice Number 301054
Invoice Date 08/09/2018
Work Order Number CFM002

County Fleet Mtce-Fuel
Macomb County Fuel billing

Department
PUBLIC WORKS

Total
2,936.31

Amount Due: 2,936.31

Invoice # 301054 **\$2,936.31**

mt

Tammy Goike

101 44101 - Public Works
\$1,298.78

639 44101 - Drain Maintenance
\$466.37

Public Works

Pump Station
\$516.35

Wastewater
\$654.81

Chg: 8 1/2 Mile Rly

Date 8.20.18

Chief Deputy AB

Engineer(s) _____

Manager(s) UA

Permit BD

Finance Officer blm

93002
PA040341

Please send payment within 30 days and include the invoice number on your check.
If you have any questions, please feel free to call Kathy at 586-463-0324

STAFF 9-4-18
BOARD 9-10-18

CANDICE S. MILLER

MACOMB COUNTY PUBLIC WORKS COMMISSIONER

21777 Dunham Road
Clinton Township, Michigan 48036
Phone: (586) 469-5325

Invoice No. 8056-2018

INVOICE

Customer

Name 8 1/2 MILE RELIEF

Address _____

City _____

Date 8/10/2018

Description	TOTAL
Personnel reimbursement 6/30/17 - 7/13/18 due to MIDDD (See Attached)	\$64,142.66
<div style="border: 1px solid black; padding: 5px; margin: 10px 0;"><p>Date <u>6-30-18</u></p><p>Chief Deputy <u>AB</u></p><p>Engineer(s) _____</p><p>Manager(s) <u>UA</u></p><p>Coordinator(s) <u>BD</u></p><p>Finance Officer <u>BYM</u></p></div>	
TOTAL	\$64,142.66

For Office Use Only:

Date Received _____
Amount Received _____
Check No. _____
Voucher No./Date _____

PA 040298
RV014934

BY: _____

Bruce Manning, Financial Manager

Staff 8-23-18
Board 9-10-18

AUG 27 2018
BY: MH

MIDDD

Operation, Maintenance & Repair Reimbursement Work Order Project Report

Drain	8 1/2 Mile Relief Drain	Invoice Period	7/14/18 - 8/10/18
Account #		Invoice No.	065-18
Drain #		Wisner #	

DESCRIPTION:

WORK PERFORMED:

Operations & maintenance - 7/16/18, 7/17/18, 7/19/18, 7/20/18, 7/23/18, 7/24/18, 7/25/18, 7/26/18, 7/30/18, 8/1/18, 8/2/18, 8/3/18, 8/6/18, 8/8/18
fill shift - 7/25/18

PERSONNEL	STAFF HOURS	1.5 OT HOURS	HOURLY RATE WITH FRINGE	1.5 OT RATE	SUB TOTAL
GELLE (7/19)	7.5		46.29	59.95	347.18
PIRKOVIC (7/20, 7/24, 7/25, 7/26, 7/30, 8/1, 8/2, 8/3, 8/6, 8/8)	72.5	1	46.29	59.95	3,415.98
ROSKOPP (7/16, 7/17, 7/23)	13.5		46.62	60.45	629.37
SANTO			57.60	76.76	0.00

TOTAL: \$ 4,392.52

Date	8.27.18
Chief Deputy	AB
Engineer(s)	
Manager(s)	JA
Coordinator(s)	BD
Finance Officer	hmm

PA 040402
RV015089

9404.bd

Schwep 9.4.18
Keara 9.10.18



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

Invoice Date: 07/10/2018
 Invoice #: 195311
 Project: 0314-18-0010

Project Name: Chapaton TRC Monitoring
 Job # WWS 18-012
 Email to michelle.houvener@macombgov.org

For Professional Services Rendered through: 6/30/2018

Description	Fee	Prior Billed	Total Available	Current Billing
Task 1 Understanding Facility and Site	6,500.00	0.00	6,500.00	2,815.00
Task 2 Performing Pilot Study	2,500.00	0.00	2,500.00	0.00
Task 3 Data Analysis and Summary	3,000.00	0.00	3,000.00	0.00
Task 4 Integrating Monitoring into Long-term Goals	4,000.00	0.00	4,000.00	0.00
Task 5 Deliverables	4,000.00	0.00	4,000.00	0.00
Amount Due This Invoice **	20,000.00	0.00	20,000.00	2,815.00

Chgs: 8 1/2 Mile

Date 8.3.18 (6.30.18)
 Chief Deputy BB
 Engineer(s) _____
 Manager UB
 Coordinator(s) BB
 Finance Officer SA

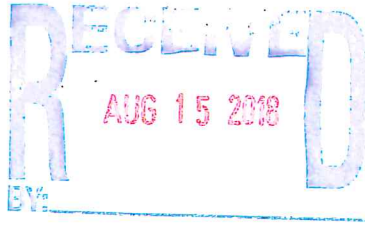
PA 040232 80300

REMIT TO:
 OHM Advisors
 34000 PLYMOUTH RD
 LIVONIA, MICHIGAN 48150-1512

T 734.522.6711
 F 734.522.6427

OHM-Advisors.com

State 8.22.18
 Board 9.10.18



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

Invoice Date: 08/09/2018
 Invoice #: 196167
 Project: 0314-18-0010

Project Name: Chapaton TRC Monitoring

Job # WWS 18-012
 Email to michelle.houvener@macombgov.org

For Professional Services Rendered through: 7/28/2018

Description	Fee	Prior Billed	Total Available	Current Billing
Task 1 Understanding Facility and Site	6,500.00	2,815.00	3,685.00	1,178.75
Task 2 Performing Pilot Study	2,500.00	0.00	2,500.00	2,775.00
Task 3 Data Analysis and Summary	3,000.00	0.00	3,000.00	0.00
Task 4 Integrating Monitoring into Long-term Goals	4,000.00	0.00	4,000.00	0.00
Task 5 Deliverables	4,000.00	0.00	4,000.00	0.00
Amount Due This Invoice **	20,000.00	2,815.00	17,185.00	3,953.75

Chg: 8 1/2 Mile Ref

Date: 8.13.18
 Chief Deputy: PB
 Engineer(s):
 Manager(s): VAS
 Coordinator(s): SD
 Finance Officer: BTM

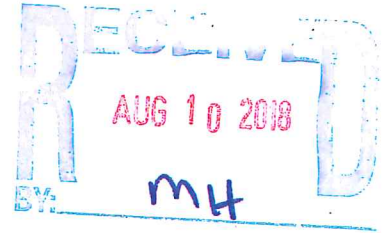
PA040339 80300

REMIT TO:
 OHM Advisors
 34000 PLYMOUTH RD T 734.522.6711
 LIVONIA, MICHIGAN 48150-1512 F 734.522.6427 OHM-Advisors.com

Staff 8-23-18
 Board 9-10-18
 Project Balance \$13,231.25



Tetra Tech, Inc.
 424 Lewis Hargett Circle
 Ste. 110
 Lexington, KY 40503
 (859) 223-8000



BILL TO: MACOMB COUNTY
ATTN: FINANCE DEPARTMENT
 OFFICE OF PUBLIC WORKS
 COMMISSIONER
 21777 DUNHAM RD
 PO BOX 806
 CLINTON TOWNSHIP, MI 48036

INVOICE NUMBER: 51341192
INVOICE DATE: 08/09/2018
SERVICES THROUGH: 07/27/2018
FEDERAL TAX ID#: 95-4148514
TERMS: NET 30

Project Contact - Vincent Astorino - vincent.astorino@macombgov.org
 Notice of Award 2/14/18

PROFESSIONAL SERVICES:

Project Number 200-16347-18001 Macomb Chapaton Expansion Study-MCPWO Project: MCPWO-WWS-2018-004
 Top Task 001 Study

EMPLOYEE	TITLE	CURRENT LABOR HOURS	LABOR RATE	CURRENT LABOR AMOUNT
Irgang, Laura M.	Project Engineer 1	5.00	\$150.00	\$750.00
Kaliman, Roger G.	Sr Engineer 1	3.50	\$190.00	\$665.00
Rubel, Brian M.	Program Manager	8.00	\$200.00	\$1,600.00
Takacs, Krista M.	Project Engineer 1	37.50	\$150.00	\$5,625.00
TOTAL LABOR		54.00		\$8,640.00
		SUBTOTAL		\$8,640.00

Total Top Task# 001 \$8,640.00

Top Task 002 Sub-ASI

SUBCONTRACTOR	TYPE	CURRENT AMOUNT
APPLIED SCIENCE INC	Subcontractor-External	\$15,023.00
TOTAL SUBCONTRACTOR CHARGES		\$15,023.00
	Plus Mark-up	1,502.30
	SUBTOTAL	\$16,525.30

Total Top Task# 002 \$16,525.30

Top Task 004 Sub-FK

SUBCONTRACTOR	TYPE	CURRENT AMOUNT
FK ENGINEERING ASSOCIATES	Subcontractor-External	\$9,574.00
TOTAL SUBCONTRACTOR CHARGES		\$9,574.00
	Plus Mark-up	957.40
	SUBTOTAL	\$10,531.40

Total Top Task# 004 \$10,531.40

Total Project# 200-16347-18001 \$35,696.70

TOTAL AMOUNT DUE THIS INVOICE: \$35,696.70

Chg: 8 1/2 Mile

Date	8.10.18
Chief Deputy	AB
Engineer(s)	
Manager(s)	UB
Coordinator(s)	BD
Finance Officer	AM

PA 040302 80300

Staff 8-23-18
 Board 9-10-18



Wade Trim
 500 Griswold Street • Suite 2500 • Detroit, MI 48226
 313.961.3650 • FAX: 313.961.0898 • www.wadetrtrim.com
 Federal ID 38-1802386

RECEIVED
 AUG 28 2018
 MH

INVOICE

Terms: Net 30 Days
 1.5% Per Month After 30 Days
 18% Annual Rate

Macomb County Public Works
 P.O. Box 806
 Mt. Clemens, MI 48046-0806
 Attention: Stephen Downing
 Engineer II-Waste Water Services

Invoice Date : August 28, 2018
 Invoice # : 2012406
 Project # : MCW200401D

Remit payment to : Wade Trim
 500 Griswold Street
 Suite 2500
 Detroit, MI 48226

Re: Basin Segmentation/Disinfection Sys

For Professional Services rendered from 7/29/2018 through 8/25/2018

Chapaton RTB Segmentation&Disinfect

WWS 18-006

Total Salaries	\$7,702.50
Total Expenses	\$0.00
Professional Services Rendered	\$7,702.50

Amount Due This Invoice **\$7,702.50**

chg: 8 1/2 Mile

Date 8.28.18
 Chief Deputy AB
 Engineer(s) SP
 Manager(s) UA
 Coordinator(s) 3D
 Finance Officer Sam

PA-040478 80300

Statement	
Prior Invoices	\$13,406.25
This Invoice	\$7,702.50
Total Invoiced	\$21,108.75
Paid to Date	\$13,406.25
Amount Outstanding	\$7,702.50

Fee Summary	
Authorized Fee	\$117,500.00
Total Invoiced	\$21,108.75
Amount Remaining	\$96,391.25

Staff 9-4-18
 Board 9-10-18

Income Statement
8.5 Mile Relief
As of Aug 31, 2018

	9-30-2017	10-1-17 to 7-31-18	Aug-18	Total
	Total Fund	O&M	O&M	8/31/2018
Revenues		2,847,828	139,052	2,986,880
Expenditures		1,446,090	88,592	1,534,682
Equity**	3,105,754			4,557,952

NOTES

Reserves as of Sept 30, 2017	600,000
Required SRF repair & replacement reserve balance 9/	1,308,558
Total	1,908,558

**** Broken out as follows:**

Engineering carryover balance at 9/30/2017	356,050
Repair and Maintenance carryover at 9/30/2017	422,000
SCADA reserve at 9/30/2017	40,000
Equipment carryover balance at 9/30/2017	131,800
Required SRF repair & replacement reserve balance 9/	1,308,558
Emergency Reserve	600,000