

NOTICE OF MEETINGS

DRAINAGE BOARD FOR THE FOLLOWING DRAINS:

1. Acacia Park CSO Drain
2. Birmingham CSO Drain
3. Bloomfield Village CSO Drain
4. Clinton River Water Resource Recovery Facility
5. Augusta Drain
6. Edwards Relief Drain
7. Henry Graham Drain
8. Pontiac Clinton River No. 1 Drain
9. Ballard Drain
10. Osgood Drain
11. Eight Mile Drain
12. George W. Kuhn Drain

NOTICE IS HEREBY GIVEN THAT MEETINGS OF THE DRAINAGE BOARD FOR THE ABOVE-MENTIONED DRAINS WILL COMMENCE AT **2:00 P.M.**, ON **TUESDAY, JUNE 23, 2020** VIA GOTOMEETING. THOSE THAT WISH TO PARTICIPATE MAY FOLLOW THE INSTRUCTIONS ATTACHED TO THIS NOTICE.

THIS BOARD MEETING IS BEING CONDUCTED ELECTRONICALLY UNDER THE GOVERNOR'S EXECUTIVE ORDER 2020-75 DUE TO THE COVID-19 PANDEMIC.

DURING THE ELECTRONIC MEETING, THERE WILL BE AN AGENDA ITEM FOR PUBLIC COMMENT, DURING WHICH THE PUBLIC MAY PROVIDE INPUT OR ASK QUESTIONS OF THE BOARD. IN THE EVENT A MEMBER OF THE PUBLIC WOULD LIKE TO SUBMIT THEIR INPUT OR QUESTIONS TO BE READ AT THE MEETING BY THE BOARD CHAIRPERSON, PLEASE PROVIDE THE INPUT OR QUESTIONS IN WRITING TO MEGAN KOSS AT KOSSM@OAKGOV.COM.

PERSONS WITH DISABILITIES THAT NEED ASSISTANCE
PARTICIPATING IN THE MEETING SHOULD CONTACT MEGAN KOSS AT
KOSSM@OAKGOV.COM.

JIM NASH
Oakland County Water Resources Commissioner
Telephone: 248-858-0958

Posted by: June 19, 2020

Chapter 20 Drainage Board Meeting - June 2020
Tue, Jun 23, 2020 2:00 PM - 3:30 PM (EDT)

Please join my meeting from your computer, tablet or smartphone.

<https://global.gotomeeting.com/join/823837789>

You can also dial in using your phone.

(For supported devices, tap a one-touch number below to join instantly.)

United States: +1 (571) 317-3122

- One-touch: <tel:+15713173122,,823837789#>

Access Code: 823-837-789

Join from a video-conferencing room or system.

Dial in or type: 67.217.95.2 or inroomlink.goto.com

Meeting ID: 823 837 789

Or dial directly: 823837789@67.217.95.2 or 67.217.95.2##823837789

Chapter 20 Drainage Board Meeting
Regular Meeting – Tuesday June 23, 2020

1. Acacia Park CSO

AGENDA

DRAINAGE BOARD FOR THE ACACIA PARK CSO DRAIN

June 23, 2020

1. Call meeting to order
2. Approve minutes of meeting of May 19, 2020
3. Public Comments
4. Present Memorandum recommending the Board adopt a resolution to allow the district to share its GIS data to advance the goals of the regional asset management program
5. Present Memorandum recommending the Board authorize Oakland County IT and Oakland County WRC to perform internet service upgrades
6. Present request for reimbursement of the Evergreen Farmington Fund in the amount of \$27,007.92
7. Other business
8. Approve pro rata payment to Drainage Board members
9. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE ACACIA PARK CSO DRAIN**

May 19, 2020

A meeting of the Drainage Board for the Acacia Park CSO Drain was held at 2:00 p.m. on the 19th day of May, 2020. The meeting was conducted via GoToMeeting in accordance with the Governor's Executive Order 2020-75 due to the ongoing COVID-19 pandemic. Commissioner Nash read a brief statement regarding the current health crisis and its impact on the Chapter 20 meetings, which can be found in its entirety under "Drainage District Policy".

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Helaine Zack, Chairperson of the Finance Committee, Oakland County Board of Commissioners

ABSENT: David Woodward, Chairperson of the Oakland County Board of Commissioners

Minutes of the meeting held April 28, 2020 were presented for consideration. It was moved by Zack, supported by Nash, that the minutes be approved.

ADOPTED: Yeas - 2
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

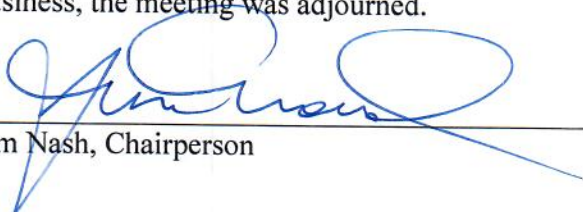
A request for reimbursement of the Evergreen Farmington Fund in the amount of \$27,007.92 (as attached) was presented. It was moved by Zack, supported by Nash, to reimburse the Evergreen Farmington Fund in the amount of \$27,007.92.

ADOPTED: Yeas - 2
Nays - 0

It was moved by Nash, supported by Zack, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Zack.

ADOPTED: Yeas - 2
Nays - 0

There being no further business, the meeting was adjourned.

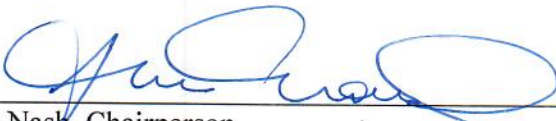


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the Acacia Park CSO Drain, Oakland County, Michigan, held on the 19th day of May, 2020, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Acacia Park CSO Drain Drainage District.



Jim Nash, Chairperson

Dated: June 1 , 2020

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairman
Drainage Board for the Acacia Park CSO Drain

FROM: John Basch, Senior Attorney

SUBJECT: Data-Sharing Resolution

DATE: June 23, 2020

Municipalities, drainage districts, and some other governmental agencies have been asked by the Southeast Michigan Council of Governments (SEMCOG) to assist in developing a clearinghouse of Geographical Information System (GIS) data to bolster its new Infrastructure Asset Management Program.

The information collected will allow SEMCOG to better understand the assets throughout the region as it develops a “needs study” for drinking water, along with sanitary sewer and stormwater systems. The material assembled also could help SEMCOG coordinate with other entities to work toward a culture shift that will promote region-wide strategic asset management.

In 2017, this drainage district participated previously in a similar data-sharing program when the State of Michigan conducted the 21st Century Infrastructure Commission to provide a long-term infrastructure strategy on a statewide level. Unfortunately, that program was narrowly focused and did not allow expansion to other entities such as SEMCOG. Today, by participating with SEMCOG, the district can help that regional agency develop a “needs study” for Drinking Water, Sanitary Sewer, and Storm Sewer systems in the region. This program will help SEMCOG coordinate with other entities and work toward a culture shift that will accept strategic asset management. The five main goals of this program are:

- Understanding the overall condition of infrastructure assets
- Strengthening coordination on infrastructure projects to improve cost efficiencies and reduce inconvenience to the public
- Sharing best practices for asset management programs
- Developing a clearinghouse to summarize regional infrastructure needs
- Communicating region-wide priorities at the state level

Recommendation: Adopt the attached resolution to allow the district to share its GIS data to advance the goals of this regional asset management program.

**THE DRAINAGE DISTRICT FOR THE ACACIA PARK CSO DRAIN
RESOLUTION TO AUTHORIZE OAKLAND COUNTY
TO SHARE ACACIA PARK CSO DRAIN GIS DATA
WITH OTHER GOVERNMENTAL AGENCIES**

At a meeting of the Drainage Board for the Acacia Park CSO Drain, the following resolution was offered by Commissioner _____ and seconded by Commissioner _____:

WHEREAS, sharing data with other regional and governmental agencies improves the ability to coordinate with such agencies during emergency situations, understand the criticality of a municipality's or drainage district's assets, coordinate construction and other maintenance activities, as well as participate in comprehensive approaches to utility asset management; and

WHEREAS, the County of Oakland has participated, and continues to participate, in numerous data-sharing agreements with state and federal agencies, including the Michigan Department of Environment, Great Lakes, and Energy, as well as the United States Environmental Protection Agency; and

WHEREAS, the Drainage Board for the Acacia Park CSO Drain believes it would benefit from such data sharing through financial savings, improved asset management procedures and improved levels of service; and

WHEREAS, the Drainage Board for the Acacia Park CSO Drain, in the interest of convenience and efficiency, desires the County to include the District's infrastructure assets in the County's data-sharing program by granting data-sharing authorization to the County.

NOW THEREFORE BE IT RESOLVED that the Drainage Board for the Acacia Park CSO Drain authorizes the County, by this resolution, to enter into agreements with other governmental agencies on behalf of the District and share such infrastructure data with regional, state and/or federal agencies that incorporates the District's GIS data.

BE IT FURTHER RESOLVED that an executed copy of this resolution shall be

YEAS:

ABSTENTIONS:

STATE OF MICHIGAN)
)ss
COUNTY OF OAKLAND)

I hereby certify that the foregoing is a true and complete copy of a resolution adopted at a meeting of the Drainage Board for the Acacia Park CSO Drain, Oakland County, Michigan, on the _____ day of _____, 2020, the original of which is on file in my office.

I further certify that notice of the meeting was given pursuant to and in full compliance with Act No. 267, of the Public Acts of Michigan, 1976, as amended.

IN WITNESS WHEREOF, I have hereunto affixed by official signature this ____ day
of _____, 2020.

Jim Nash, Chairman

**OAKLAND COUNTY
WATER RESOURCES
COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairman
Acacia Park CSO RTB Drainage Board

FROM: Jason Say, Project Engineer

SUBJECT: Acacia Park CSO RTB - AT&T Internet Upgrade Approval

DATE: June 23, 2020

The Acacia Park CSO RTB is located at 31835 Evergreen in the City of Beverly Hills. AT&T is currently providing internet service by DSL (Digital Subscriber Line) for transmitting digital data. This is becoming an outdated technology which has led to connection issues and routinely going down causing risk(s) and challenges to staff work efforts.

Oakland County WRC has been in collaboration with Oakland County IT and Michael Bak (ICS Integration Services LLC) has reached out to AT&T for a quote to upgrade to Fiber (Fiber-optic cables). Fiber sends data faster, transfers data more consistently, less likely to go down during a power outage and is a much more inexpensive service.

Upgrading the service at Acacia Park will not only result in faster and more reliable internet but an annual savings of approximately 24%. Please see the attached cost comparison spreadsheet generated by Roy Smotherman (OCWRC – Business Information Systems) for details of current monthly/annual plan versus the proposed new monthly/annual plan.

Current Plan – Annual Cost	New Plan – Annual Cost (w/o Installation Cost)	Percent Saved
\$ 3,744.00	\$ 900.00	24.04%

*Note: There will be an installation cost of \$99.00 and the early termination fee (ETF) is 50% of remaining monthly recurring charges. The additional costs for OCIT's involvement are not included.

It is recommended that the Board authorize Oakland County IT & Oakland County WRC to perform the above referenced upgrade, as recommended by OCIT, OCWRC – Business Information Systems and ICS Integration Services LLC for Internet Service Upgrades.

Facility	Fund	Street Address	City	Current Plan		New Plan - Fiber		
				Monthly	Annual	Mbps*	Monthly	Annual
Acacia Park	82725	31835 Evergreen	Beverly Hills	\$ 312.00	\$ 3,744.00	25/5	\$ 60.00	\$ 720.00
Birmingham	82728	700 Linden	Birmingham	315.00	\$ 3,780.00	75/20	\$ 115.00	\$ 1,380.00
Bloomfield Hills	82730	1200 S. Cranbrook	Birmingham	210.00	\$ 2,520.00	25/5	\$ 60.00	\$ 720.00
Walnut One Pump Station	58410	7498 Inkster	West Bloomfield	238.69	\$ 2,864.28	50/10	\$ 85.00	\$ 1,020.00
				\$ 12,908.28		\$ 3,840.00		

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the ACACIA PARK CSO DRAIN

FROM: Shawn Phelps, Chief of Fiscal Services *Sj Phelps*
OCWRC Accounting

DATE: June 23, 2020

SUBJECT: Request for Reimbursement of Evergreen Farmington Fund

The following is a detail of charges paid from the Evergreen Farmington Fund
for the period ending June 12, 2020.

<u>Date</u>	<u>Ref No.</u>	<u>For</u>	<u>Amount</u>
05/31/20	JE# 335690	May 2020 Storm Water Flow Charges RTB Capacity Use (O & M Credit)	\$27,007.92
			<u>\$27,007.92</u>

2. Birmingham CSO

AGENDA

DRAINAGE BOARD FOR THE BIRMINGHAM CSO DRAIN

June 23, 2020

1. Call meeting to order
2. Approve minutes of meeting of May 19, 2020
3. Public Comments
4. Present Memorandum recommending the Board adopt a resolution to allow the district to share its GIS data to advance the goals of the regional asset management program
5. Present Memorandum recommending the Board authorize Oakland County IT and Oakland County WRC to perform internet service upgrades
6. Present request for Board approval of payment of invoices and reimbursement of the Drain Revolving Fund in the amount of \$3,628.40
7. Present request for reimbursement of the Evergreen Farmington Fund in the amount of \$29,602
8. Other business
9. Approve pro rata payment to Drainage Board members
10. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE BIRMINGHAM CSO DRAIN**

May 19, 2020

A meeting of the Drainage Board for the Birmingham CSO Drain was held at 2:00 p.m. on the 19th day of May, 2020. The meeting was conducted via GoToMeeting in accordance with the Governor's Executive Order 2020-75 due to the ongoing COVID-19 pandemic. Commissioner Nash read a brief statement regarding the current health crisis and its impact on the Chapter 20 meetings, which can be found in its entirety under "Drainage District Policy".

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Helaine Zack, Chairperson of the Finance Committee, Oakland County Board of Commissioners

ABSENT: David Woodward, Chairperson of the Oakland County Board of Commissioners

Minutes of the meeting held April 28, 2020 were presented for consideration. It was moved by Zack, supported by Nash, that the minutes be approved.

ADOPTED: Yeas - 2
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.


A request for reimbursement of the Evergreen Farmington Fund in the amount of \$29,602 (as attached) was presented. It was moved by Zack, supported by Nash, to reimburse the Evergreen Farmington Fund in the amount of \$29,602.

ADOPTED: Yeas - 2
Nays - 0

It was moved by Nash, supported by Zack, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Zack.

ADOPTED: Yeas - 2
Nays - 0

There being no further business, the meeting was adjourned.




Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the Birmingham CSO Drain, Oakland County, Michigan, held on the 19th day of May, 2020, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Birmingham CSO Drain Drainage District.



Jim Nash, Chairperson

Dated: June 1, 2020

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairman
Drainage Board for the Birmingham CSO Drain

FROM: John Basch, Senior Attorney

SUBJECT: Data-Sharing Resolution

DATE: June 23, 2020

Municipalities, drainage districts, and some other governmental agencies have been asked by the Southeast Michigan Council of Governments (SEMCOG) to assist in developing a clearinghouse of Geographical Information System (GIS) data to bolster its new Infrastructure Asset Management Program.

The information collected will allow SEMCOG to better understand the assets throughout the region as it develops a “needs study” for drinking water, along with sanitary sewer and stormwater systems. The material assembled also could help SEMCOG coordinate with other entities to work toward a culture shift that will promote region-wide strategic asset management.

In 2017, this drainage district participated previously in a similar data-sharing program when the State of Michigan conducted the 21st Century Infrastructure Commission to provide a long-term infrastructure strategy on a statewide level. Unfortunately, that program was narrowly focused and did not allow expansion to other entities such as SEMCOG. Today, by participating with SEMCOG, the district can help that regional agency develop a “needs study” for Drinking Water, Sanitary Sewer, and Storm Sewer systems in the region. This program will help SEMCOG coordinate with other entities and work toward a culture shift that will accept strategic asset management. The five main goals of this program are:

- Understanding the overall condition of infrastructure assets
- Strengthening coordination on infrastructure projects to improve cost efficiencies and reduce inconvenience to the public
- Sharing best practices for asset management programs
- Developing a clearinghouse to summarize regional infrastructure needs
- Communicating region-wide priorities at the state level

Recommendation: Adopt the attached resolution to allow the district to share its GIS data to advance the goals of this regional asset management program.

**OAKLAND COUNTY
WATER RESOURCES
COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairman
Birmingham CSO RTB Drainage Board

FROM: Jason Say, Project Engineer

SUBJECT: Birmingham CSO RTB - AT&T Internet Upgrade Approval

DATE: June 23, 2020

The Birmingham CSO RTB is located at 700 Linden in the City of Birmingham. AT&T is currently providing internet service by DSL (Digital Subscriber Line) for transmitting digital data. This is becoming an outdated technology which has led to connection issues and routinely going down causing risk(s) and challenges to staff work efforts.

Oakland County WRC has been in collaboration with Oakland County IT and Michael Bak (ICS Integration Services LLC) has reached out to AT&T for a quote to upgrade to Fiber (Fiber-optic cables). Fiber sends data faster, transfers data more consistently, less likely to go down during a power outage and is a much more inexpensive service.

Upgrading the service at Birmingham will not only result in faster and more reliable internet but an annual savings of approximately 41%. Please see the attached cost comparison spreadsheet generated by Roy Smotherman (OCWRC – Business Information Systems) for details of current monthly/annual plan versus the proposed new monthly/annual plan.

Current Plan – Annual Cost	New Plan – Annual Cost (w/o Installation Cost)	Percent Saved
\$ 3,780.00	\$ 1,560.00	41.27%

*Note: There will be an installation cost of \$99.00 and the early termination fee (ETF) is 50% of remaining monthly recurring charges. The additional costs for OCIT's involvement are not included.

It is recommended that the Board authorize Oakland County IT & Oakland County WRC to perform the above referenced upgrade, as recommended by OCIT, OCWRC – Business Information Systems and ICS Integration Services LLC for Internet Service Upgrades.

Facility	Fund	Street Address	City	Current Plan		New Plan - Fiber		
				Monthly	Annual	Mbps*	Monthly	Annual
Acacia Park	82725	31835 Evergreen	Beverly Hills	\$ 312.00	\$ 3,744.00	25/5	\$ 60.00	\$ 720.00
Birmingham	82728	700 Linden	Birmingham	315.00	\$ 3,780.00	75/20	\$ 115.00	\$ 1,380.00
Bloomfield Hills	82730	1200 S. Cranbrook	Birmingham	210.00	\$ 2,520.00	25/5	\$ 60.00	\$ 720.00
Walnut One Pump Station	58410	7498 Inkster	West Bloomfield	238.69	\$ 2,864.28	50/10	\$ 85.00	\$ 1,020.00
				\$ 12,908.28		\$ 3,840.00		

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the BIRMINGHAM CSO DRAIN

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting



DATE: June 23, 2020

SUBJECT: Request for Approval of Invoices

The following is a detail of Maintenance charges paid from the Drain Revolving Fund and Invoices
for the period ending June 13, 2020

G/L Date	Ref No.	Paid To	For	Amount
5/31/2020	V # 1443253	JCI Jones Chemicals Inc	Invoice # 821311 - Chlorination Supplies	\$ 1,793.93
5/31/2020	V # 1443258	JCI Jones Chemicals Inc	Invoice # 821330 - Chlorination Supplies	1,834.47
			Total	<u>\$ 3,628.40</u>

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the BIRMINGHAM CSO DRAIN

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting



DATE: June 23, 2020

SUBJECT: Request for Reimbursement of Evergreen Farmington Fund

The following is a detail of charges paid from the Evergreen Farmington Fund
for the period ending June 12, 2020.

<u>Date</u>	<u>Ref No.</u>	<u>For</u>	<u>Amount</u>
05/31/20	JE# 335690	May 2020 Storm Water Flow Charges RTB Capacity Use (O & M Credit)	\$29,602.00
			<u>\$29,602.00</u>

3. Bloomfield Village CSO

AGENDA

DRAINAGE BOARD FOR THE BLOOMFIELD VILLAGE CSO DRAIN

June 23, 2020

1. Call meeting to order
2. Approve minutes of meeting of May 19, 2020
3. Public Comments
4. Present Memorandum recommending the Board adopt a resolution to allow the district to share its GIS data to advance the goals of the regional asset management program
5. Present Memorandum recommending the Board authorize Oakland County IT and Oakland County WRC to perform internet service upgrades
6. Present Memorandum recommending the Board approve the agreement between the Evergreen Farmington Sewage Disposal System and the Bloomfield Village Retention Treatment Basin as presented and authorize the Chairperson of the Board to execute the agreement
7. Present request for Board approval of payment of invoices and reimbursement of the Drain Revolving Fund in the amount of \$3,189.30
8. Present request for reimbursement of the Evergreen Farmington Fund in the amount of \$35,972.42
9. Other business
10. Approve pro rata payment to Drainage Board members
11. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE BLOOMFIELD VILLAGE CSO DRAIN**

May 19, 2020

A meeting of the Drainage Board for the Bloomfield Village CSO Drain was held at 2:00 p.m. on the 19th day of May, 2020. The meeting was conducted via GoToMeeting in accordance with the Governor's Executive Order 2020-75 due to the ongoing COVID-19 pandemic. Commissioner Nash read a brief statement regarding the current health crisis and its impact on the Chapter 20 meetings, which can be found in its entirety under "Drainage District Policy".

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Helaine Zack, Chairperson of the Finance Committee, Oakland County Board of Commissioners

ABSENT: David Woodward, Chairperson of the Oakland County Board of Commissioners

Minutes of the meeting held April 28, 2020 were presented for consideration. It was moved by Zack, supported by Nash, that the minutes be approved.

ADOPTED: Yeas - 2
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

A request for Board approval of payment of invoices in the amount of \$4,654.57 (as attached) was presented. It was moved by Zack, supported by Nash, that the invoices in the amount of \$4,654.57 be paid as presented.

ADOPTED: Yeas - 2
Nays - 0

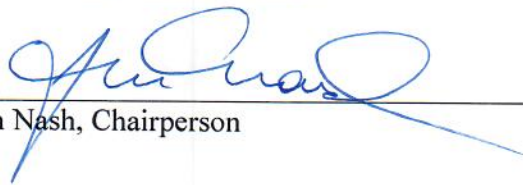
A request for reimbursement of the Evergreen Farmington Fund in the amount of \$35,972.42 (as attached) was presented. It was moved by Zack, supported by Nash, to reimburse the Evergreen Farmington Fund in the amount of \$35,972.42.

ADOPTED: Yeas - 2
Nays - 0

It was moved by Nash, supported by Zack, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Zack.

ADOPTED: Yeas - 2
Nays - 0

There being no further business, the meeting was adjourned.




Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the Bloomfield Village CSO Drain, Oakland County, Michigan, held on the 19th day of May, 2020, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Bloomfield Village CSO Drain Drainage District.



Jim Nash, Chairperson

Dated: June 1 , 2020

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairman
Drainage Board for the Bloomfield Village CSO Drain

FROM: John Basch, Senior Attorney

SUBJECT: Data-Sharing Resolution

DATE: June 23, 2020

Municipalities, drainage districts, and some other governmental agencies have been asked by the Southeast Michigan Council of Governments (SEMCOG) to assist in developing a clearinghouse of Geographical Information System (GIS) data to bolster its new Infrastructure Asset Management Program.

The information collected will allow SEMCOG to better understand the assets throughout the region as it develops a “needs study” for drinking water, along with sanitary sewer and stormwater systems. The material assembled also could help SEMCOG coordinate with other entities to work toward a culture shift that will promote region-wide strategic asset management.

In 2017, this drainage district participated previously in a similar data-sharing program when the State of Michigan conducted the 21st Century Infrastructure Commission to provide a long-term infrastructure strategy on a statewide level. Unfortunately, that program was narrowly focused and did not allow expansion to other entities such as SEMCOG. Today, by participating with SEMCOG, the district can help that regional agency develop a “needs study” for Drinking Water, Sanitary Sewer, and Storm Sewer systems in the region. This program will help SEMCOG coordinate with other entities and work toward a culture shift that will accept strategic asset management. The five main goals of this program are:

- Understanding the overall condition of infrastructure assets
- Strengthening coordination on infrastructure projects to improve cost efficiencies and reduce inconvenience to the public
- Sharing best practices for asset management programs
- Developing a clearinghouse to summarize regional infrastructure needs
- Communicating region-wide priorities at the state level

Recommendation: Adopt the attached resolution to allow the district to share its GIS data to advance the goals of this regional asset management program.

**OAKLAND COUNTY
WATER RESOURCES
COMMISSIONER**

MEMORANDUM

TO: Jim Nash, Chairman
Bloomfield Village CSO RTB Drainage Board

FROM: Jason Say, Project Engineer

SUBJECT: Bloomfield Village CSO RTB - AT&T Internet Upgrade Approval

DATE: June 23, 2020

The Bloomfield Village CSO RTB is located at 1200 S. Cranbrook in the City of Birmingham. AT&T is currently providing internet service by DSL (Digital Subscriber Line) for transmitting digital data. This is becoming an outdated technology which has led to connection issues and routinely going down causing risk(s) and challenges to staff work efforts.

Oakland County WRC has been in collaboration with Oakland County IT and Michael Bak (ICS Integration Services LLC) has reached out to AT&T for a quote to upgrade to Fiber (Fiber-optic cables). Fiber sends data faster, transfers data more consistently, less likely to go down during a power outage and is a much more inexpensive service.

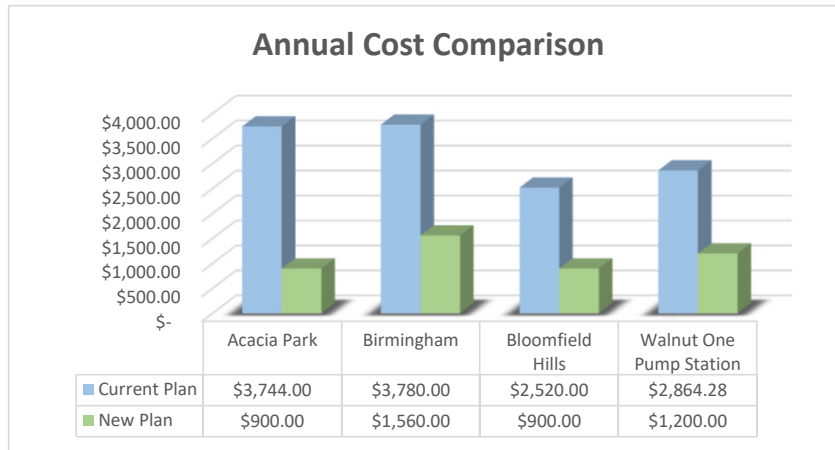
Upgrading the service at Bloomfield Village will not only result in faster and more reliable internet but an annual savings of approximately 36%. Please see the attached cost comparison spreadsheet generated by Roy Smotherman (OCWRC – Business Information Systems) for details of current monthly/annual plan versus the proposed new monthly/annual plan.

Current Plan – Annual Cost	New Plan – Annual Cost (w/o Installation Cost)	Percent Saved
\$ 2,520.00	\$ 900.00	35.71%

*Note: There will be an installation cost of \$99.00 and the early termination fee (ETF) is 50% of remaining monthly recurring charges. The additional costs for OCIT's involvement are not included.

It is recommended that the Board authorize Oakland County IT & Oakland County WRC to perform the above referenced upgrade, as recommended by OCIT, OCWRC – Business Information Systems and ICS Integration Services LLC for Internet Service Upgrades.

Facility	Fund	Street Address	City	Current Plan		New Plan - Fiber		
				Monthly	Annual	Mbps*	Monthly	Annual
Acacia Park	82725	31835 Evergreen	Beverly Hills	\$ 312.00	\$ 3,744.00	25/5	\$ 60.00	\$ 720.00
Birmingham	82728	700 Linden	Birmingham	315.00	\$ 3,780.00	75/20	\$ 115.00	\$ 1,380.00
Bloomfield Hills	82730	1200 S. Cranbrook	Birmingham	210.00	\$ 2,520.00	25/5	\$ 60.00	\$ 720.00
Walnut One Pump Station	58410	7498 Inkster	West Bloomfield	238.69	\$ 2,864.28	50/10	\$ 85.00	\$ 1,020.00
					\$ 12,908.28			
								\$ 3,840.00



Options		
Usable Static IP	Monthly	Annual
5**	\$ 15.00	\$ 180.00
13	\$ 25.00	\$ 300.00

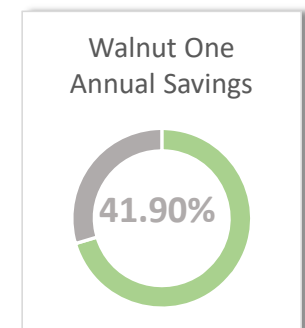
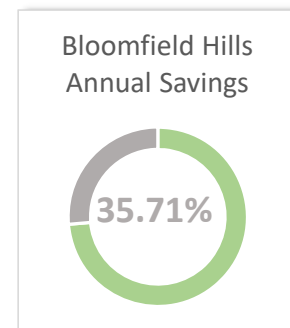
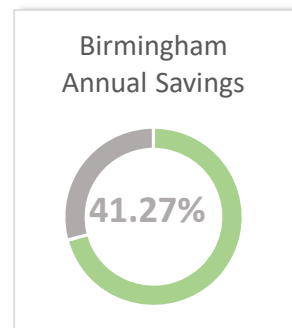
Installation Cost	
One Time Upfront - per individual site	\$ 99.00

Total with Options (not including install cost)		
Facility	Annual	Savings
Acacia Park	\$ 900.00	24.04%
Birmingham	\$ 1,560.00	41.27%
Bloomfield Hills	\$ 900.00	35.71%
Walnut Pump Station	\$ 1,200.00	41.90%
	\$ 4,560.00	35.33%

*Fastest available speeds at each site: Download Mbps/Upload Mbps

** Usuable Static IP recommendation by Mike Bak (ICS Integration LLC)

Early Termination Fee (ETF) is 50% of remaining monthly recurring charges (MRC). Must sign a multi-year contract.



**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairperson
Bloomfield Village Retention Treatment Basin Drainage Board

FROM: Brian Coburn, P.E.; Chief Engineer

SUBJECT: EFSDS Use of Bloomfield Village RTB

DATE: June 23, 2020

The Evergreen Farmington Sewage Disposal System (EFSDS) is requesting approval of the attached agreement permitting the use of the Bloomfield Village Retention Treatment Basin (BVRTB) by the EFSDS during wet weather events in exchange for a payment to BVRTB for the stored. The EFSDS constructed a force main extension from the EFSDS Walnut Lake #1 Pump Station to the BVRTB to divert flow out of the EFSDS and into the basin for storage and treatment during wet weather events. This connection was permitted by the Michigan Department of Environment, Great Lakes and Energy (EGLE) as part of the Administrative Consent Order (ACO) between EGLE and the EFSDS.

A similar contractual relationship exists between each of the Retention Treatment Basin (RTB) district in which the RTB districts close the regulators to stop discharge into the EFSDS during wet weather. The EFSDS reimburses the RTB districts for the RTB flow that is stored instead of discharged into the EFSDS. The reimbursement calculation is the same for both agreements, currently \$13.45 per thousand cubic feet.

The agreement was reviewed through a series of stakeholder meetings with representatives from both the EFSDS and BVRTB communities. The stakeholder group and WRC staff recommend approval of the agreement.

The agreement will remain in place until the end of the ACO in 2023, after which a new agreement would be needed to address long-term use of the BVRTB by EFSDS.

Recommended Action: Approve the agreement between the Evergreen Farmington Sewage Disposal System and the Bloomfield Village Retention Treatment Basin as presented and authorize the Chairperson of the Board to execute the agreement.

**EVERGREEN FARMINGTON SEWAGE DISPOSAL SYSTEM AND BLOOMFIELD VILLAGE
RETENTION TREATMENT BASIN STORAGE AGREEMENT**

This Agreement is made this June 23, 2020 by and between the County of Oakland, a Michigan constitutional corporation, by and through its County Agency for the Evergreen-Farmington Sewage Disposal System (“EFSDS”), and the Bloomfield Village CSO Drain Drainage District, a Michigan statutory corporation organized pursuant to Act 40 of 1956, as amended, by and through its drain board (“Drainage District”). In this Agreement, either the EFSDS or Drainage District may also be referred to individually as a “Party” or jointly as the “Parties.”

RECITATIONS

Whereas the County is the owner of a regional system of sewers commonly referred to as the EFSDS which is operated and maintained by the County Agency in accordance with Act 342 of the Public Acts of 1939, as amended, Public Act 185 of the Public Acts of 1957, as amended, and Miscellaneous Resolution #93-075; and

Whereas in accordance with Chapter 20 of Public Act 40 of the Public Acts of 1956, as amended, the Drainage District was established for the purpose of financing, designing, constructing, owning, operating and maintaining a retention treatment basin (RTB) for the purpose of controlling and treating combined sewage received from all or certain areas within the Charter Township of Bloomfield; and

Whereas on August 14, 2019, the County Agency, on behalf of the EFSDS, and the State of Michigan entered into an Administrative Consent Order, specifically ACO-04995, (“ACO”) requiring the County to perform certain corrective actions, (i.e. projects) in order to reduce sanitary sewer overflows from the EFSDS and comply with Part 31, Water Resources Protection of the Natural Resources and Environmental Protection Act, Michigan Public Act 451 of the Public Acts of 1994 (NREPA), MCL 324.3101 et seq.; and

Whereas the ACO states, among other things, that the County can divert wet weather sanitary flow from the EFSDS to the Drainage District for the duration of the ACO period and during events that exceed the design storm defined by the ACO; and

Whereas the County has constructed an extension of the Walnut Lake #1 force main that can transport flow from the EFSDS to the Drainage District; and

Whereas the purpose of this Agreement is to set forth the basis and methodology for compensating the Drainage District for the use of the Drainage District for storage and treatment of sewage from the Walnut Lake #1 force main in accordance with the ACO, as amended.

Now therefore, the Parties agree as follows.

AGREEMENT

1. The Drainage District agrees to accept sanitary sewer flow from the EFSDS via the Walnut Lake #1 force main to the Drainage District to be stored and treated at the Drainage District and the EFSDS agrees to reimburse the Drainage District for the volume of sanitary sewer flow that enters the Drainage District.
2. Reimbursement. The Drainage District will be reimbursed by the EFSDS as follows:
 - a. The volume is recorded each time flow from the EFSDS is diverted to the Drainage District. The total quarterly volume will be used to calculate the charge to EFSDS by the Drainage District.
 - b. A cost of \$13.45 per thousand cubic feet ("cost per MCF") has been established for the period of July 1, 2019 through June 30, 2020. The cost per MCF shall be adjusted using the method in Exhibit A for each subsequent rate year (July 1 through June 30).
 - c. A charge is made to the EFSDS and a corresponding credit is applied to the Drainage District quarterly based on the EFSDS volume for that quarter from subsection a., above, multiplied by the cost per MCF determined in subsection b., above.
3. Limit on Flow. There is a limit on the amount of flow that can be accepted from the EFSDS by the Drainage District. The flow is limited to the capacity of the Walnut Lake #1 Lift Station, which is 14 cubic feet per second.
4. Term. The term of this Agreement will continue in accordance with the ACO, as amended, until December 31, 2023, unless extended by mutual written consent of the Parties.

5. General Conditions.

- a. This Agreement shall be construed under Michigan law, and if any part, term or provision of this Agreement shall be determined by a court of competent jurisdiction to be unlawful or unenforceable, such determination shall not affect the validity and enforceability of the remaining parts, terms and provisions of this Agreement.
- b. This Agreement sets forth the entire understanding between the Parties concerning the purpose set forth herein. This Agreement shall be amended only by written agreement of the Parties.

This Agreement is executed by the EFSDS and the Drainage District acting by and through their duly appointed and acting agents on the date(s) indicated below.

Evergreen Farmington Sewage Disposal System

By: _____ Date _____
Jim Nash
Water Resources Commissioner and County Agency
for the Evergreen-Farmington Sewage Disposal System

Bloomfield Village CSO Drainage District

By: _____ Date _____
Jim Nash, Chairperson
Drainage Board for the Bloomfield Village CSO
Drainage District

Approved at a meeting of the drainage board on _____, 2019.

Drafted by:
Kelsey Cooke (P73242)
One Public Works Drive
Waterford, MI 48328

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the BLOOMFIELD VILLAGE CSO DRAIN

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting



DATE: June 23, 2020

SUBJECT: Request for Approval of Invoices

The following is a detail of Maintenance charges paid from the Drain Revolving Fund and Invoices
for the period ending June 12, 2020

G/L Date	Ref No.	Paid To	For	Amount
5/31/2020	V # 1443256	JCI Jones Chemicals Inc	Invoice # 821312 - Chlorination Supplies	\$ 1,624.10
5/31/2020	V # 1443263	JCI Jones Chemicals Inc	Invoice # 821331 - Chlorination Supplies	1,565.20
			Total	<u>\$ 3,189.30</u>

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the BLOOMFIELD VILLAGE CSO DRAIN

FROM: Shawn Phelps, Chief of Fiscal Services *Sj Phelps*
OCWRC Accounting

DATE: June 23, 2020

SUBJECT: Request for Reimbursement of Evergreen Farmington Fund

The following is a detail of charges paid from the Evergreen Farmington Fund
for the period ending June 12, 2020.

<u>Date</u>	<u>Ref No.</u>	<u>For</u>	<u>Amount</u>
05/31/20	JE# 335690	May 2020 Storm Water Flow Charges RTB Capacity Use (O & M Credit)	\$35,972.42
			<u>\$35,972.42</u>

4. Clinton River Water Resource Recovery Facility

AGENDA

DRAINAGE BOARD FOR THE CLINTON RIVER WATER RESOURCE RECOVERY FACILITY

June 23, 2020

1. Call meeting to order
2. Approve minutes of meeting of May 19, 2020
3. Public Comments
4. Present Memorandum recommending the Board adopt a resolution to allow the district to share its GIS data to advance the goals of the regional asset management program
5. Present Memorandum recommending the Board approve the additional cost to extend project insurance coverage for the Bio-Solids Handling & Septage Receiving Facility Project to December 12, 2020 in the amount of \$94,104
6. Present Memorandum recommending the Board approve the allocation of \$380,000 in Capital Improvement funds for the sodium hypochlorite line replacement project
7. Present Memorandum recommending the Board approve the allocation of \$280,000 in Capital Improvement funds for emergency pipe replacement and surge protection installation
8. Presentation from Jacobs regarding the pilot digestion and electrical improvements project
9. Present Change Order No. 39 for Tooles Contracting Group LLC for a net decrease in the amount of \$3,438.16
10. Present Construction Estimate No. 33 for Tooles Contracting Group LLC in the amount of \$93,805.39
11. Present Construction Estimate No. 13 for Frank Rewold and Son, Inc. in the amount of \$39,679.71
12. Present request for Board approval of payment of invoices from the Construction Fund in the amount \$16,236.78
13. Present request for Board approval of payment of invoices and reimbursement of the Drain Revolving Fund from the Maintenance Fund in the amount of \$332,345.21
14. Other business
15. Approve pro rata payment to Drainage Board members
16. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE CLINTON RIVER WATER RESOURCE RECOVERY FACILITY**

May 19, 2020

A meeting of the Drainage Board for the Clinton River Water Resource Recovery Facility was held at 2:00 p.m. on the 19th day of May, 2020. The meeting was conducted via GoToMeeting in accordance with the Governor's Executive Order 2020-75 due to the ongoing COVID-19 pandemic. Commissioner Nash read a brief statement regarding the current health crisis and its impact on the Chapter 20 meetings, which can be found in its entirety under "Drainage District Policy".

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

David Woodward, Chairperson of the Oakland County Board of Commissioners

Helaine Zack, Chairperson of the Finance Committee, Oakland County Board of Commissioners

Minutes of the meeting held April 28, 2020 were presented for consideration. It was moved by Zack, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

Construction Estimate No. 32 for Tooles Contracting Group LLC in the amount of \$64,412.32 (as attached) was presented. It was moved by Zack, supported by Woodward, to approve Construction Estimate No. 32 in the amount of \$64,412.32 as presented.

ADOPTED: Yeas - 3
Nays - 0

Construction Estimate No. 12 for Frank Rewold and Son, Inc. in the amount of \$9,274.56 and a reserve payment of \$1,688.44 (as attached) was presented. It was moved by Zack, supported by Woodward, to approve Construction Estimate No. 12 in the amount of \$9,274.56 and a reserve payment of \$1,688.44 as presented.

ADOPTED: Yeas - 3
Nays - 0

A request for Board approval of payment of invoices from the Construction Fund in the amount of \$10,605.96 (as attached) was presented. It was moved by Zack, supported by Woodward, that the invoices in the amount of \$10,605.96 be paid as presented.

ADOPTED: Yeas - 3
Nays - 0

A request for Board approval of payment of invoices from the Maintenance Fund in the amount of \$87,573.39 (as attached) was presented. It was moved by Zack, supported by Woodward, that the invoices in the amount of \$87,573.39 be paid as presented.

ADOPTED: Yeas - 3
Nays - 0

It was moved by Nash, supported by Zack, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Zack and Mr. Woodward.

ADOPTED: Yeas - 3
Nays - 0

There being no further business, the meeting was adjourned.

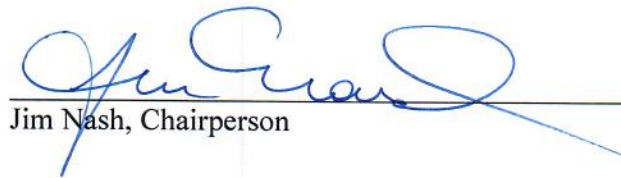


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the Clinton River Water Resource Recovery Facility, Oakland County, Michigan, held on the 19th day of May, 2020, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for Clinton River Water Resource Recovery Facility Drainage District.



Jim Nash, Chairperson

Dated: June 1 , 2020

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairman
Drainage Board for the Clinton River Water Resource Recovery Facility

FROM: John Basch, Senior Attorney

SUBJECT: Data-Sharing Resolution

DATE: June 23, 2020

Municipalities, drainage districts, and some other governmental agencies have been asked by the Southeast Michigan Council of Governments (SEMCOG) to assist in developing a clearinghouse of Geographical Information System (GIS) data to bolster its new Infrastructure Asset Management Program.

The information collected will allow SEMCOG to better understand the assets throughout the region as it develops a “needs study” for drinking water, along with sanitary sewer and stormwater systems. The material assembled also could help SEMCOG coordinate with other entities to work toward a culture shift that will promote region-wide strategic asset management.

In 2017, this drainage district participated previously in a similar data-sharing program when the State of Michigan conducted the 21st Century Infrastructure Commission to provide a long-term infrastructure strategy on a statewide level. Unfortunately, that program was narrowly focused and did not allow expansion to other entities such as SEMCOG. Today, by participating with SEMCOG, the district can help that regional agency develop a “needs study” for Drinking Water, Sanitary Sewer, and Storm Sewer systems in the region. This program will help SEMCOG coordinate with other entities and work toward a culture shift that will accept strategic asset management. The five main goals of this program are:

- Understanding the overall condition of infrastructure assets
- Strengthening coordination on infrastructure projects to improve cost efficiencies and reduce inconvenience to the public
- Sharing best practices for asset management programs
- Developing a clearinghouse to summarize regional infrastructure needs
- Communicating region-wide priorities at the state level

Recommendation: Adopt the attached resolution to allow the district to share its GIS data to advance the goals of this regional asset management program.

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER**

MEMORANDUM

TO: Jim Nash, Chairperson of the Hamilton Relief Drainage Board

FROM: Razik Alsaigh, P.E.

SUBJECT: Bio-Solids Handling & Septage Receiving Facility Project
Clinton River Water Resource Recovery Facility

DATE: June 23, 2020

On March 28, 2017, the Drainage Board for the Clinton River Water Resource Recovery Facility approved an Owner Controlled Insurance Program (OCIP) for the Bio-Solids Handling & Septage Receiving Facility Project administered by Meadowbrook Insurance Agency. The terms of this OCIP is set to expire on June 12, 2020.

The project is nearing completion and currently undergoing final testing, but work is on-going and there is a need to extend the OCIP for an additional (6) months. This extension will continue OCIP coverage through December 12, 2020.

Attached letter from Meadowbrook Insurance Agency, dated June 10, 2020, identifies the cost of this extension to be \$94,104.00. This additional cost will not increase the overall budget of the Bio-Solids Projects while still providing liability protection to the Drainage Board as this project is finalized.

Requested Action: Approve the additional cost to extend OCIP coverage for the Bio-Solids Handling & Septage Receiving Facility Project to December 12, 2020 in the amount of \$94,104.00.

June 10, 2020

Craig Tiell
Civil Engineer II
Water Resources Commissioner
One Public Works Drive, Bldg 95 West
Waterford, MI 48328

RE: Owner Controlled Insurance Program

Hi Craig,

To confirm our conference call this afternoon, Meadowbrook Insurance Agency has been instructed by WRC to provide a six month extension to the Owner Controlled Insurance Program (OCIP) that will expire on June 12, 2020. The extension of coverage is needed to allow additional time to complete the Bio-solids and Dequindre Pump Rehab Projects. With the extension, the OCIP policies will now expire on December 12, 2020.

The additional premium for the extension is \$121,658. Invoicing will be allocated as follows:

- Bio-Solids Project - \$94,104.
- Dequindre Pump Rehab - \$27,554.

We appreciate your help. Please let us know if any questions.

Regards,

James Kelley, CPCU, LIC

cc. Sal Saputo, Phillip Anderson

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairman
Clinton River Water Resource Recovery Facility Drainage Board

FROM: Mary Koeger, P.E., Operations Engineer

SUBJECT: CRWRRF – Sodium Hypochlorite Line Replacement

DATE: June 11, 2020

The Clinton River Water Resource Recovery Facility (CRWRRF) uses a 650-foot long 4-inch diameter sodium hypochlorite disinfection line at the Auburn site's tertiary filters. In March of 2020, the line became inoperable due to calcium buildup. It was determined that the calcium buildup cannot be removed and the line needs to be replaced. Currently, operators are hauling three 300-gallon totes per day from the disinfection building to the tertiary building. This change in operations creates safety concerns, additional operational costs and can possibly affect compliance for CRWRRF fecal coliform bacteria.

As the utilization of the disinfection line is crucial to operations, WRC engaged OHM to perform an emergency replacement design. Once the design is completed, we will request proposals from our blanket contractors to perform the work. By using one of our blanket contractors, the replacement of the sodium hypochlorite line can be expedited, and the plant can return to normal operations.

The total expected project cost, including design and construction, is shown below:

Design	\$39,000
Construction	\$243,000
QA/QC	\$28,000
WRC Labor	\$30,000
Contingency	\$40,000
Total	\$380,000

We recommend proceeding with the completion of the emergency sodium hypochlorite line project.

Requested Action: Approve the allocation of \$380,000 in Capital Improvement funds for this project.

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairman
Clinton River Water Resource Recovery Facility Drainage Board

FROM: Mary Koeger, P.E., Operations Engineer

SUBJECT: CRWRRF – Emergency Pipe Replacement & Surge Protection Installation
for Tertiary Stand Pipe System

DATE: June 11, 2020

The Clinton River Water Resource Recovery Facility (CRWRRF) currently uses a piping system in the Tertiary Building to fill a 600,000-gallon stand pipe tank that provides non-potable plant effluent water to clean four tertiary filters. The stand pipe system can no longer be operated remotely and is operated manually. The system's pipe and supports have reached the end of their useful life and are no longer structurally sound. Additionally, there are water hammer concerns that could result in pipe failure, potentially causing 600,000-gallons of plant effluent water to flood the tertiary basement. This would damage millions of dollars of vital operations equipment.

The structural deterioration of the piping and supports, combined with potential water hammer concerns and manual operations, lead to an emergency assessment of the system by Hazen and Sawyer. Results of the assessment determined a full replacement of the pipe and addition of a surge protection system are required.

To relieve these concerns as quickly as possible, a design was created by Hazen and Sawyer for the piping replacement and new surge protection system. A proposal was received from Process Piping and Equipment (PPE) to perform the emergency pipe repair and surge protection system installation. CRWRRF staff can perform all related electrical work. The total expected project cost, including assessment, design and construction, is shown below:

Assessment & Design	\$45,000
Construction	\$181,000
WRC Labor	\$18,000
Contingency	\$36,000
Total	\$280,000

We recommend proceeding with the completion of the emergency pipe replacement and surge protection installation for Tertiary Stand Pipe system.

Requested Action: Approve the allocation of \$280,000 in Capital Improvement funds for this project.

Pilot Digestion and Electrical Improvements Project

Dave Parry, PhD, PE and
Allen Gelderloos, PE
June 23, 2020



JACOBS®

Agenda

1. Overview of C. Bescii
2. Scope
 - Description of C Bescii Pilot
 - Basis of designs
 1. **Digester improvements**
 2. **Cogeneration**
 3. **Electrical system improvements**
3. Benefits of Project
4. Schedule
5. Budget
6. Summary



Overview of *C. Bescii*

Caldicellulosiruptor bescii (*C. Bescii*) is a thermophilic anaerobic bacteria capable of hydrolyzing lignocellulosic and other recalcitrant biomass like waste activated sludge.

C. Bescii was isolated in a geothermally heated fresh water pool in Russia in 1990.

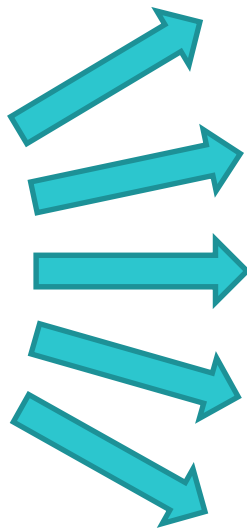
Prior research has focused on producing biofuels.

This pilot is focused on hydrolyzing and fermenting recalcitrant biomass for improved anaerobic digestion performance.



C. Bescii Hydrolysis Process Potential Benefits

The C. Bescii Hydrolysis Process (CBHP) hydrolyzes recalcitrant biomass enabling its conversion to biogas



Increased digester performance

Increased digester capacity

Increased volatile solids reduction

Decreased biosolids product

Improved dewaterability

Increased quality (Class A Biosolids)

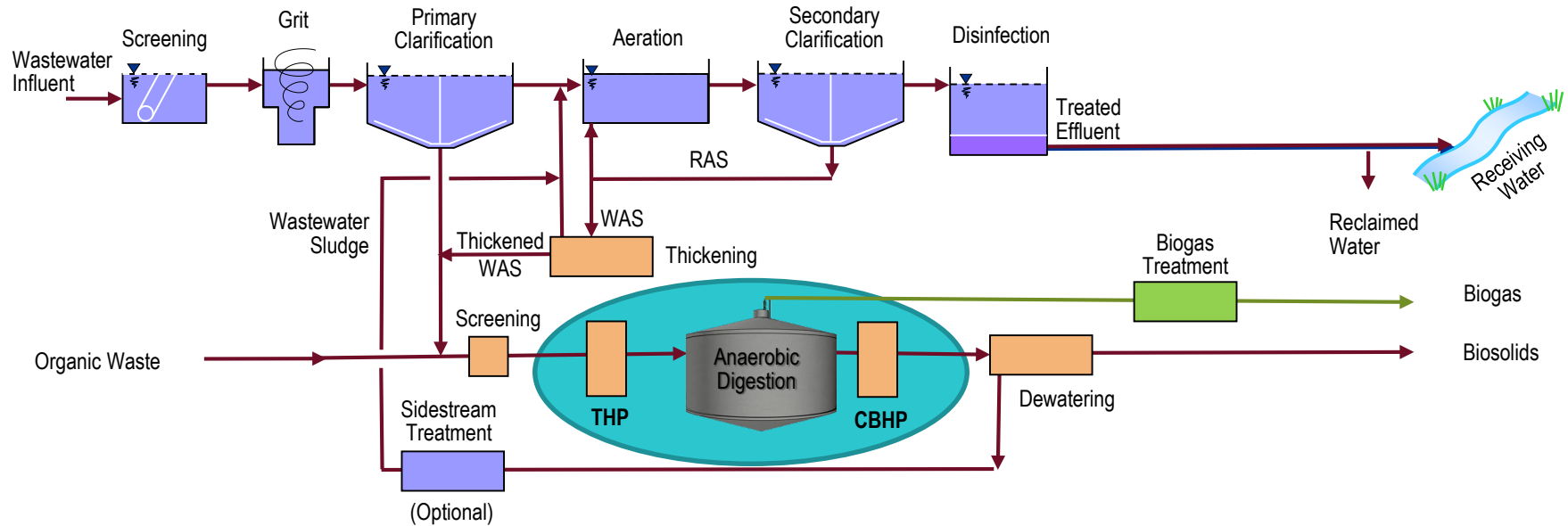
Increased biogas production

Increased methane content

Improved foam control

Decreased odor in biosolids product

The C. Bescii Hydrolysis Process (CBHP) would be installed after the Thermal Hydrolysis Process (THP) and Anaerobic Digestion at the Clinton River WRRF



Self-contained Pilot Digesters for *C. Bescii* Tests



Pilot tests are needed to determine the improved digester performance (increased biogas and decreased biosolids) of CBHP with THP

Pilot-Scale Operation for Basis of Design for Digester Improvements



- Digester Performance with and without CB
- Sludge Characteristics
 - Thermal hydrolyzed sludge
 - C. Bescii hydrolyzed sludge
 - Anaerobic digested sludge
- Sensitivity to pH, ammonia, solids retention time, and temperature
- Biogas production and quality (CH_4 , CO_2 , H_2S)
- Dewatering performance and odor reduction

Basis of Design – Digester Improvements



Digester improvements are dependent on CBHP pilot results. Evaluation of pilot results will determine economic feasibility of improvements.



- Basis of Design
- Flow and Heat Balance
- Operation Projections
 - Digestion VSR
 - Biogas production
 - Heat exchange
 - Biosolids product
- Design Elements
 - C. Bescii Tanks
 - Heat exchangers
 - Pumps and piping

Basis of Design – Cogeneration System



Cogeneration System was recommended from Methane Gas Study



- Basis of Design
 - Dependent on biogas projections with or without CBHP
- Operation projections
 - Biogas production
 - Heat balance
 - Electrical supply/demand
- Design Elements
 - Cogeneration units
 - Heat system with THP and CBHP
 - Power interconnection
 - Interface with backup power

Basis of Design – Electrical System Improvement



- Basis of Design
 - Clinton River WRRF
 - East Blvd WRRF
- Condition Assessment
 - Switchgear, MCCs
 - Distribution lines
- Design Elements
 - Central cogeneration
 - Evaluate power to grid
 - Backup power
 - Improved electrical distribution

Benefits

1. Additional biogas & Less biosolids

Evaluation of C. Bescii with thermal hydrolysis process

Basis of design of digestion improvements with C. Bescii, if successful pilot

2. Onsite power production based on additional biogas

Basis of design of cogeneration facility (implementation of methane study recommendation)

3. Improved electrical distribution and central backup power reliability

Basis of design of electrical system improvements

Elimination of multiple distributed backup generators

Schedule

Task	Duration	Scheduled Period
Task 1: Pilot Planning		10/2020 – 12/2020
Prepare Trailer Upgrade Design	4 weeks	
Prepare Startup and Testing Plan	2 weeks	
Prepare Sampling and Analysis Plan	2 weeks	
Prepare Health and Safety Plan	1 week	
Prepare Pilot Safety Plans	2 weeks	
Kickoff Meeting	1 day	
Site Visit	1 day	
Task 2: Pilot Modifications and Start-up		10/2020 – 11/2020
Pilot Trailer Shipment	2 weeks	
Trailer Setup and Upgrades	2 weeks	
Pilot Trailer Site Visit	1 day	
Startup and Troubleshoot	2 weeks	
Task 3: Testing		11/2020 – 6/2021
Digester seeding, Inoculate C. bescii tank	1 weeks	
Feed Digesters and acclimate digesters	8 weeks	
Operate at steady state	14 weeks	
Task 4: Decommission/Demobilization		6/2021 – 7/2021
Disassemble pilot	4 weeks	
Task 5: Pilot Test Reports		6/2021 – 7/2021
Prepare Pilot Test Report	6 weeks	
Pilot Test Review and Meeting	2 weeks	
Task 6: Basis of Design Report – Digester Improvements		6/2021 – 8/2021
Prepare Basis of Design Report	8 weeks	
Task 7: Basis of Design Report – Cogeneration System		6/2021 – 8/2021
Prepare Basis of Design Report	8 weeks	
Task 8: Basis of Design Report – Electrical System Improvements		8/2020 – 11/2020
Prepare Basis of Design Report	12 weeks	

Budget

Task No.	Task Description	Fee
1	Pilot Planning	\$38,246
2	Pilot Modifications and Start-up	\$59,677
3	Pilot Testing	\$91,427
4	Decommissioning/Demobilization	\$10,258
5	Pilot Test Reports	\$16,383
6	Basis of Design – Digester System	\$39,449
7	Basis of Design – Cogeneration System	\$21,431
8	Basis of Design – Electrical System	\$60,042
9	Project Management	\$25,507
10	Quality Control	\$8,968
	TOTAL	\$371,400

Summary

- Determine additional biogas production from C. Bescii hydrolysis process
- Prepare basis of design for digestion improvements
- Prepare basis of design for cogeneration based on biogas production
- Prepare basis of design for electrical improvements including central backup power
- Integrated project with separate deliverables

Pilot Digestion and Electrical Improvements Project

Discussion

Dave Parry, PhD, PE and Allen Gelderloos, PE

Dave.Parry@jacobs.com and Allen.Gelderloos@jacobs.com

DRAIN CHANGE ORDER NO. 39

Jim Nash, Oakland County Water Resources Commissioner

For Construction of the Biosolids Handling and Septage Receiving FacilityLocated in City of Pontiac, Oakland County, MichiganCONTRACTOR: Tooles Contracting Group LLCAddress: 535 Griswold Suite 2550Detroit, MI 48226

Authorization for Extras To & Changes In Contract

Change Order No: 39 Date Issued: 6/12/2020

Auth No.	Location-Description-Reason	Unit Used	Est. Quant.	Unit Price	Amount Increase	Amount Decrease
1	LOCATION: Clinton River Water Resource Recovery Facility - Sludge Storage Building					
2,4&7	Biosolids Building					
3	All Plant Facilities					
5	Filter Building and Yard					
6	Digester Building					
1	DESCRIPTION: Change/Deduct Provide credit for all materials, labor, and equipment for routing downspouts to discharge on the road in lieu of providing underground piping in three locations north of the Sludge Storage Building, as described in the attached Work Directive #49, dated August 22, 2019.	LS	-1	\$3,322.60	-	\$3,322.60
2	Change/Add Provide all materials, labor, and equipment to provide stainless spool pieces to facilitate the installation of the three polymer feed flow meters (FITs 237, 240 and 241), as described in the attached Request for Information #169 dated October 2018 and Field Change Request #38, dated June 09, 2020.	LS	1	\$5,048.40	\$5,048.40	---
3	Change Suspend work on the project for the first seven days of the month of May 2020, excluding critical equipment issues. Critical work can only be performed after coordination with Owner, Engineer, and Contractor. Owner will not charge liquidated damages for these seven days. Contractor will not have personnel working on site except for critical equipment issues coordinated and scheduled with Owner.	NA	NA	\$0.00	\$0.00	---
4	Change/Add Provide all materials, labor, and equipment to modify the installation location of Exhaust Fan 6 (EF-6) at the lower floor level of the Biosolids Building, as described in the attached Request for Information #168 dated October 2018 and Field Change Request #37, dated May 06, 2020.	LS	1	\$2,011.80	\$2,011.80	---

CONTRACTOR: Tooles Contracting Group LLCAddress: 535 Griswold Suite 2550Detroit, MI 48226

Authorization for Extras To & Changes In Contract

Change Order No: 39 Date Issued: 6/12/2020

Auth No.	Location-Description-Reason	Unit Used	Est. Quant.	Unit Price	Amount Increase	Amount Decrease
5	Change/Deduct Provide all materials, labor, and equipment to install a yard hydrant next to Final Tank #4 and provide a credit for using the existing piping in the Sludge Filter Building to connect the new plant water system with the existing system instead of providing a new penetration with new piping, as described in the attached Work Directive #25, dated August 23 2018.	LS	-1	\$1,078.75	-	\$1,078.75
6	Change/Add Provide all materials, labor, and equipment to use fiber optic zip cords for the connection between the Digester Electrical Building DIOP and the relocated fiber panel FCP-05, as described in the attached Work Directive #07, dated December 17, 2017.	LS	1	\$931.47	\$931.47	---
7	Change/Deduct Provide materials, labor, and equipment to provide electrical modifications related to the progressive cavity pumps, as described in the attached Work Directive #10, dated February 16, 2018.	LS	-1	\$7,028.48	-	\$7,028.48
	<u>REASON:</u>					
1	Site Grading prevented these three downspouts from being routed under the road to the ditch. Discharging to the road eliminated this interference.					
2	Coordination with the flow meter manufacturer determined that the meters should be supported at the inlet and outlet piping and not the meters themselves. The meters weigh too much to be supported by the PVC piping therefore stainless steel spools were provided at the support locations.					
3	Protect the health and safety of WRC plant personnel and Contractor personnel due to the Covid-19 virus.					

CONTRACTOR: Tooles Contracting Group LLCAddress: 535 Griswold Suite 2550Detroit, MI 48226

Authorization for Extras To & Changes In Contract

Change Order No: 39 Date Issued: 6/12/2020

Auth No.	Location-Description-Reason	Unit Used	Est. Quant.	Unit Price	Amount Increase	Amount Decrease
4	During the submittal phase, it was determined that EF-6 was larger than expected and could not fit in the location provided on the plans. The fan was relocated and required an additional plenum.					
5	Yard hydrant was needed on the 8" waterline near the final settling tanks for maintenance purposes. The existing plant water piping leaving the Filter Press Building to the existing plant water system were in good shape. The plant water piping connection was not needed.					
6	During installation FCP-05 was relocated next to DIOP. This close proximity allowed fiber optic zip ties to be used and provide a better communications for the end product.					
7	Submitted pump horsepower were lower than what was included in the electrical design.					
	Note: CDM Smith and WRC have reviewed the methods and costs of this work based upon similar work of this type. The prices in this change order are fair and reasonable. See attached backup materials from Tooles Contracting Group.					
Totals					\$7,991.67	\$11,429.83
Net Decrease					---	\$3,438.16

CHANGE ORDER NO. 39

JIM NASH Water Resources Commissioner

For Construction of the Biosolids Handling and Septage Receiving Facility

Prepared by: Razik Alsaigh Date: 06/12/2020
Project Engineer – Razik Alsaigh - PE
Oakland County Water Resources Commissioner's Office

Recommended by: Edward St John Date: 6/12/2020
Consulting Engineer – Edward St John - PE
CDM Smith - Consulting Engineer

Approved by: _____ Date: _____
Chief Engineer – Gary Nigro - PE
Oakland County Water Resources Commissioner's Office

The Contractor agrees to do the work described above and agrees to accept payment in full on the basis indicated.

Accepted by: Manny Lamit Date: 06/12/2020
of: Tooles Contracting Group LLC

Approved by: _____ Date: _____
Manager – Sidney Lockhart, P.E.
Construction Management
Oakland County Water Resources Commissioner's Office

The Contractor is hereby authorized and instructed to do the work described above in accordance with the terms of the Contract.

This Change Order No. 39 was approved by the Drainage Board on: _____

JIM NASH
OAKLAND COUNTY WATER RESOURCES COMMISSIONER

Jim Nash, Oakland County Water Resources Commissioner
BioSolids Handling & Septage Receiving Facility Project
City of Pontiac, Oakland County, MI

Regular Construction Estimate No. 33

Estimate Period: May 1, 2020 to May 31, 2020

Contractor

Toolen Contracting Group LLC
535 Griswold, Suite 2550
Detroit, MI 48226

Department No.: 6010101
Fund No.: 84686
Project No.: 100000002181
Account No.: 731472
Program No.: 149015
Activity: FAC
Purchasing Contract No.: 5179

Substantial Completion Date: June 27, 2019
Extended to: NA

Notice to Proceed: June 27, 2017
Final Completion Date: September 25, 2019
Extended to: January 6, 2020

Original Contract Amount: \$32,370,771.00
Previous Change Orders: \$1,172,292.07
Numbers: #1 through 36
Change Orders This Estimate: \$0.00
None
Total Net Change Orders: \$1,172,292.07
Adjusted Contract Amount: \$33,543,063.07

Sub-Total To Date: (Sheet 2 of 2 Column 7) \$33,015,884.27

Less Deductions: (Sheet 2 of 2 Column 7) \$0.00

Gross Estimate: (Work in Place) 98.43% \$33,015,884.27

Less Amount Reserved: (Lump Sum) \$1,644,919.77

Less Liquidated Damages For Milestone #1
266 days (March 29, 2019 to Dec 20, 2019) \$478,800.00

Less Liquidated Damages For Final Completion
112 days (January 3, 2020 to May 30, 2020
excluding 37 COVID19 days) \$224,000.00

Less Amount to be Reserved \$942,119.77

Total Amount Allowed To Date: \$31,370,964.50

Less Previous Estimates: \$31,277,159.11

Net Payment Request To Be Paid To Contractor: \$93,805.39

Reserve Payment to Contractor \$0.00

Balance of Contract To Date \$ 527,178.80 Accounting Auditor: *jlb*

Amount To Be Reserved (From Above) \$1,644,919.77

Less Previous Transfers To Reserve: \$1,644,919.77

Amount of Current Transfer: \$0.00

Less Prior Liquidated Damages Payment To Construction Account: \$654,800.00

Less Current Liquidated Damages Payment To Construction Account: \$48,000.00

Amount of Current Reserve: \$942,119.77

Prepared by: *Razik Alsaigh*
Razik Alsaigh, P.E. - Project Engineer

Date: *6/15/2020*

Recommended by: *Edmund Smith*
CDM Smith

Date: *6/15/2020*

Approved by: _____
Gary Nigro - Chief Engineer

Date: _____

Approved by: _____
Sid Lockhart, P.E. - Special Projects Manager

Date: _____

Regular Construction Estimate No. 33

Approved By Board On: _____

Use As Original

Jim Nash, Oakland County Water Resources Commissioner
Clinton River Water Resources Recovery Facility Administration Building Renovation and Addition
City of Pontiac, Oakland County, Michigan

Regular Construction Estimate No. 13

May 1, 2020 to May 31, 2020

Department No.: 6010101
Fund No.: 82686
Project No.: 1-2787

Account No.: 731472
Program No.: 149667
Activity: FAC

Contractor:

Frank Rewold and Son, Inc.
303 East Third Street - Suite 300
Rochester, MI 48307

Contract No.: 5704
Date of Contract: December 18, 2018
Completion Date: April 16, 2020
Extended to: N/A

Original Contract Amount: \$2,564,206.00

Previous Change Orders: \$0.00
Numbers: (none)

Change Orders This Estimate: \$0.00
Numbers: (none)

Total Net Change Orders: \$0.00

Adjusted Contract Amount: \$2,564,206.00

Sub-Total To Date: (Sheet 3 of 3 Column 7) \$2,289,494.51

Less Deductions: (Sheet 3 of 3 Column 7) \$0.00

Gross Estimate: (Work in Place) 89.29% \$2,289,494.51


Less Amount Reserved: (Lump Sum) \$139,300.49

Total Amount Allowed To Date: \$2,150,194.02

Less Previous Estimates: \$2,110,514.31

Net Payment Request To Be Paid To Contractor: \$39,679.71

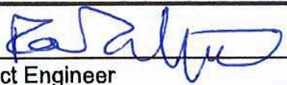
Reserve Payment to Contractor \$0.00

Balance of Contract To Date \$ 274,711.49 Accounting Auditor: 


Amount To Be Reserved (From Above) \$139,300.49

Less Previous Transfers To Reserve: \$139,300.49

Amount of Current Transfer: \$0.00

Prepared by: 
Razik Alsaigh - Project Engineer

Date: 06/12/2020

Recommended by: 
Fishbeck, Thompson, Carr & Huber - Consulting Engineer

Date: 06/11/2020

Approved by: _____
Gary Nigro - Chief Engineer, Construction Management

Date: _____

Approved by: _____
Sid Lockhart - Special Projects Manager

Date: _____

Regular Construction Estimate No. 13

Approved By Board on: _____

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the CLINTON RIVER WATER RESOURCE RECOVERY FACILITY DRAIN - (Construction)

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting



DATE: June 23, 2020

SUBJECT: Request for Board approval of payment of the following invoices:

	Ref No.	For	Amount
CDM Smith Michigan, Inc	TBP	Invoice # 38 - Engineering Admin - 04/26/20 - 05/30/20 - Proj 1-2181	16,236.78
		Total for Project # 1-2181	\$ 16,236.78

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the CLINTON RIVER WATER RESOURCE RECOVERY FACILITY DRAIN - (Maintenance)

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting



DATE: June 23, 2020

SUBJECT: Request for Approval of Invoices

The following is a detail of charges paid from the Drain Revolving Fund and Invoices for the period of May 13, 2020 to June 17, 2020.

Payable To	Ref No.	For	Amount
USA Blue Book	May 2020 Pcard	Pcard - Lab Supplies	\$ 1,421.39
USA Blue Book	May 2020 Pcard	Pcard - Lab Supplies	1,409.08
USA Blue Book	May 2020 Pcard	Pcard - Lab Supplies	2,640.95
USA Blue Book	May 2020 Pcard	Pcard - Lab Supplies	2,920.65
Ingersoll Rand Industrial US Inc	May 2020 Pcard	Pcard - Materials and Supplies	1,084.15
Michigan CAT	V # 1443279	Invoice # ES10758767 - Equipment	95,784.64
PVS Technologies Inc	V # 1444729	Invoice # 269630 - Chemical Treatment	2,208.00
PVS Technologies Inc	V # 1444733	Invoice # 269637 - Chemical Treatment	1,996.80
PVS Technologies Inc	V # 1444737	Invoice # 269889 - Chemical Treatment	1,869.12
PVS Technologies Inc	TBP	Invoice # 270266 - Chemical Treatment	2,144.64
PVS Technologies Inc	TBP	Invoice # 270253 - Chemical Treatment	2,250.24
Mike Lalone Inc	TBP	Invoice # 22734 - Contracted Services	10,698.79
Biotech Agronomics Inc	TBP	Invoice # 2520 - Landfilling - May 2020	15,846.86
JCI Jones Chemicals Inc	TBP	Invoice # 821552 - Chemical Treatment	2,437.04
JCI Jones Chemicals Inc	V # 1441940	Invoice # 820569 - Chemical Treatment	2,405.88
JCI Jones Chemicals Inc	V # 1441939	Invoice # 819251 - Chemical Treatment	2,441.14
JCI Jones Chemicals Inc	V # 1441938	Invoice # 816777 - Chemical Treatment	2,645.32
JCI Jones Chemicals Inc	TBP	Invoice # 823070 - Chemical Treatment	2,585.00
Waste Management	V # 1440550	Invoice # 841024-1714-8 - Garbage & Rubbish Disposal	1,712.74
Waste Management	V # 1440548	Invoice # 841023-1714-0 - Garbage & Rubbish Disposal	2,224.62
D3W Industries	V # 1441886	Invoice # 2106 - Material and Supplies	5,775.00
D3W Industries	V # 1441880	Invoice # 2103 - Material and Supplies	11,550.00
Fishbeck	V # 1441932	Invoice # 392065 - Contracted Services - 5/15/2020	3,314.50
Fishbeck	V # 1441930	Invoice # 390940 - Contracted Services - 3/20/2020	1,877.00
Fishbeck	V # 1441929	Invoice # 389871 - Contracted Services - 2/21/2020	1,735.00
Fishbeck	V # 1441928	Invoice # 389570 - Contracted Services - 1/24/2020	1,866.00
D3W Industries	V # 1441428	Invoice # 2090 - Material and Supplies	5,775.00
D3W Industries	TBP	Invoice # 2138 - Material and Supplies	11,550.00
D3W Industries	TBP	Invoice # 2127 - Material and Supplies	5,775.00
Polydyne Inc	TBP	Invoice # 1459910 - Chemical Treatment	24,840.00
Polydyne Inc	TBP	Invoice # 1457885 - Chemical Treatment	9,936.00
Ovivo USA LLC	TBP	Invoice # 8478549 - Material and Supplies	1,063.79
Subtotal			\$ 243,784.34
OHM	V # 1443298	Invoice # 211583 - Contracted Services - 02/1/2020 - Proj #1-3008	\$ 1,222.50
OHM	TBP	Invoice # 214745 - Contracted Services - 05/22/2020 - Proj #1-3008	1,350.00
Subtotal - Project 1-3008			\$ 2,572.50
Hazen & Sawyer	V # 1443157	Invoice # 0000003 - Contracted Services - 01/01/20 - 01/31/20 - Proj #1-3064	\$ 10,558.39
Hazen & Sawyer	V # 1443161	Invoice # 0000006 - Contracted Services - 04/01/20 - 04/30/20 - Proj #1-3064	27,925.78
Hazen & Sawyer	TBP	Invoice # 0000007 - Contracted Services - 05/01/20 - 05/31/20 - Proj #1-3064	28,469.41
Subtotal - Project 1-3064			\$ 66,953.58
Ch2m Hill Engineers Inc	TBP	Invoice # 683676CH009 - Professional Services - 05/22/20 - Proj# 1-3177	\$ 11,821.61
Ch2m Hill Engineers Inc	TBP	Invoice # 683676CH010 - Professional Services - 05/22/20 - Proj# 1-3177	4,256.58
Subtotal - Project 1-3177			\$ 16,078.19

Primodel US Inc

TBP

Invoice # 2020 - 0038- Contracted Services - Proj # 1-3064

	\$	2,956.60
Subtotal - Project 1-3064	\$	2,956.60
Total	\$	332,345.21

5. Augusta Drain

AGENDA

DRAINAGE BOARD FOR THE AUGUSTA DRAIN

June 23, 2020

1. Call meeting to order
2. Approve minutes of meeting of February 25, 2020
3. Public Comments
4. Present Memorandum recommending the Board adopt a resolution to allow the district to share its GIS data to advance the goals of the regional asset management program
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE AUGUSTA DRAIN**

February 25, 2020

A meeting of the Drainage Board for the Augusta Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 11:30 a.m. on the 25th day of February, 2020.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Gwen Markham, Vice Chairperson of the Finance Committee, Oakland County Board of Commissioners

ABSENT: David Woodward, Chairperson of the Oakland County Board of Commissioners

Helaine Zack, Chairperson of the Finance Committee, Oakland County Board of Commissioners

Minutes of the meeting held December 17, 2019 were presented for consideration. It was moved by Markham, supported by Nash, that the minutes be approved.

ADOPTED: Yeas - 2
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

A Memorandum from Joel Kohn, P.E., Environmental Planner II, dated February 25, 2020 recommending the Board authorize the Chairperson to submit a National Fish and Wildlife Federation grant application on behalf of the Drainage District was presented. It was moved by Markham, supported by Nash, to authorize the Chairperson to submit a National Fish and Wildlife Federation grant application on behalf of the Drainage District as presented.

ADOPTED: Yeas - 2
Nays - 0

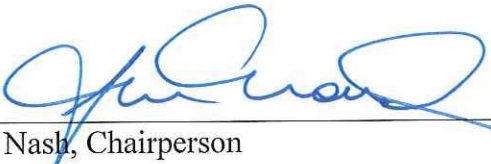
A request for reimbursement of the Drain Revolving Fund in the amount of \$672.30 (as attached) was presented. It was moved by Markham, supported by Nash, that the Drain Revolving Fund be reimbursed in the amount of \$672.30.

ADOPTED: Yeas - 2
Nays - 0

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham.

ADOPTED: Yeas - 2
Nays - 0

There being no further business, the meeting was adjourned.

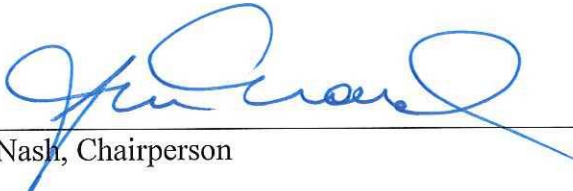


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the Augusta Drain, Oakland County, Michigan, held on the 25th day of February, 2020, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board of the Augusta Drain Drainage District.



Jim Nash, Chairperson

Dated: March 9, 2020

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairman
Drainage Board for the Augusta Drain

FROM: John Basch, Senior Attorney

SUBJECT: Data-Sharing Resolution

DATE: June 23, 2020

Municipalities, drainage districts, and some other governmental agencies have been asked by the Southeast Michigan Council of Governments (SEMCOG) to assist in developing a clearinghouse of Geographical Information System (GIS) data to bolster its new Infrastructure Asset Management Program.

The information collected will allow SEMCOG to better understand the assets throughout the region as it develops a “needs study” for drinking water, along with sanitary sewer and stormwater systems. The material assembled also could help SEMCOG coordinate with other entities to work toward a culture shift that will promote region-wide strategic asset management.

In 2017, this drainage district participated previously in a similar data-sharing program when the State of Michigan conducted the 21st Century Infrastructure Commission to provide a long-term infrastructure strategy on a statewide level. Unfortunately, that program was narrowly focused and did not allow expansion to other entities such as SEMCOG. Today, by participating with SEMCOG, the district can help that regional agency develop a “needs study” for Drinking Water, Sanitary Sewer, and Storm Sewer systems in the region. This program will help SEMCOG coordinate with other entities and work toward a culture shift that will accept strategic asset management. The five main goals of this program are:

- Understanding the overall condition of infrastructure assets
- Strengthening coordination on infrastructure projects to improve cost efficiencies and reduce inconvenience to the public
- Sharing best practices for asset management programs
- Developing a clearinghouse to summarize regional infrastructure needs
- Communicating region-wide priorities at the state level

Recommendation: Adopt the attached resolution to allow the district to share its GIS data to advance the goals of this regional asset management program.

6. Edwards Relief Drain

AGENDA

DRAINAGE BOARD FOR EDWARDS RELIEF DRAIN

June 23, 2020

1. Call meeting to order
2. Approve minutes of meeting of May 19, 2020
3. Public Comments
4. Present Memorandum recommending the Board adopt a resolution to allow the district to share its GIS data to advance the goals of the regional asset management program
5. Present request for Board approval of payment of invoices in the amount of \$6,128.93
6. Other business
7. Approve pro rata payment to Drainage Board members
8. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE EDWARDS RELIEF DRAIN**

May 19, 2020

A meeting of the Drainage Board for the Edwards Relief Drain was held at 2:00 p.m. on the 19th day of May, 2020. The meeting was conducted via GoToMeeting in accordance with the Governor's Executive Order 2020-75 due to the ongoing COVID-19 pandemic. Commissioner Nash read a brief statement regarding the current health crisis and its impact on the Chapter 20 meetings, which can be found in its entirety under "Drainage District Policy".

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

David Woodward, Chairperson of the Oakland County Board of Commissioners

Helaine Zack, Chairperson of the Finance Committee, Oakland County Board of Commissioners

Minutes of the meeting held January 28, 2020 were presented for consideration. It was moved by Zack, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

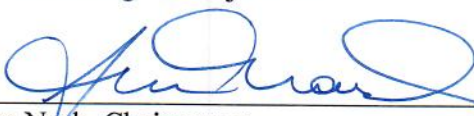
A request for reimbursement of the Drain Revolving Fund in the amount of \$3,488 (as attached) was presented. It was moved by Zack, supported by Woodward, to reimburse the Drain Revolving Fund in the amount of \$3,488.

ADOPTED: Yeas - 3
Nays - 0

It was moved by Nash, supported by Zack, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Zack and Mr. Woodward.

ADOPTED: Yeas - 3
Nays - 0

There being no further business, the meeting was adjourned.




Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the Edwards Relief Drain, Oakland County, Michigan, held on the 19th day of May, 2020, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Edwards Relief Drain Drainage District.



Jim Nash, Chairperson

Dated: June 1 , 2020

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairman
Drainage Board for the Edwards Relief Drain

FROM: John Basch, Senior Attorney

SUBJECT: Data-Sharing Resolution

DATE: June 23, 2020

Municipalities, drainage districts, and some other governmental agencies have been asked by the Southeast Michigan Council of Governments (SEMCOG) to assist in developing a clearinghouse of Geographical Information System (GIS) data to bolster its new Infrastructure Asset Management Program.

The information collected will allow SEMCOG to better understand the assets throughout the region as it develops a “needs study” for drinking water, along with sanitary sewer and stormwater systems. The material assembled also could help SEMCOG coordinate with other entities to work toward a culture shift that will promote region-wide strategic asset management.

In 2017, this drainage district participated previously in a similar data-sharing program when the State of Michigan conducted the 21st Century Infrastructure Commission to provide a long-term infrastructure strategy on a statewide level. Unfortunately, that program was narrowly focused and did not allow expansion to other entities such as SEMCOG. Today, by participating with SEMCOG, the district can help that regional agency develop a “needs study” for Drinking Water, Sanitary Sewer, and Storm Sewer systems in the region. This program will help SEMCOG coordinate with other entities and work toward a culture shift that will accept strategic asset management. The five main goals of this program are:

- Understanding the overall condition of infrastructure assets
- Strengthening coordination on infrastructure projects to improve cost efficiencies and reduce inconvenience to the public
- Sharing best practices for asset management programs
- Developing a clearinghouse to summarize regional infrastructure needs
- Communicating region-wide priorities at the state level

Recommendation: Adopt the attached resolution to allow the district to share its GIS data to advance the goals of this regional asset management program.

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the EDWARDS RELIEF DRAIN

FROM: Shawn Phelps, Chief of Fiscal Services
Drain Accounting



DATE: June 23, 2020

SUBJECT: Request for Reimbursement of Drain Revolving Fund

The following is a detail of charges paid from the Drain Revolving Fund
for the period ending June 12, 2020.

Date	Ref No.	Paid To	For	Amount
5/31/2020	V #1443193	Hubbell Roth & Clark Inc	Invoice # 0179183 - Contracted Services - 05/02/20 - Proj # 1-2680	\$ 6,128.93
			Total	\$ 6,128.93

7. Henry-Graham Drain

AGENDA

DRAINAGE BOARD FOR THE HENRY-GRAHAM DRAIN

June 23, 2020

1. Call meeting to order
2. Approve minutes of meeting of June 25, 2019
3. Public Comments
4. Present Memorandum recommending the Board adopt a resolution to allow the district to share its GIS data to advance the goals of the regional asset management program
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE HENRY-GRAHAM DRAIN**

June 25, 2019

A meeting of the Drainage Board for the Henry-Graham Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 25th day of June 2019.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Chairperson and Oakland County Water Resources Commissioner

David Woodward, Chairperson of the Oakland County Board of Commissioners

Gwen Markham, Vice Chairperson of the Finance Committee, Oakland County Board of Commissioners

ABSENT: None

Minutes of the meeting held April 23, 2019 were presented for consideration. It was moved by Woodward, supported by Markham, that the minutes be approved.

ADOPTED: Yeas - 3
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

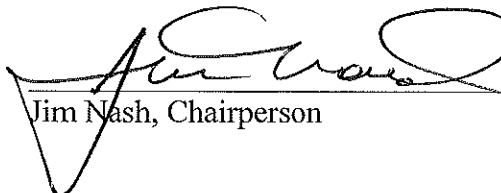
A request for Board approval of payment of invoices in the amount of \$55,090.71 (as attached) was presented. It was moved by Woodward, supported by Markham, that the invoices in the amount of \$55,090.71 be paid as presented.

ADOPTED: Yeas - 3
Nays - 0

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham and Mr. Woodward.

ADOPTED: Yeas - 3
Nays - 0

There being no further business, the meeting was adjourned.

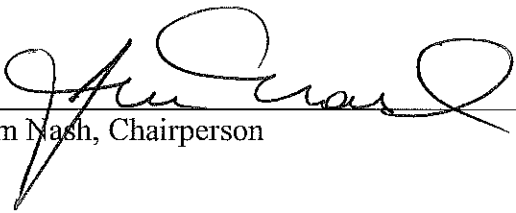


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the Henry-Graham Drain, Oakland County, Michigan, held on the 25th day of June 2019, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board of the Henry-Graham Drain Drainage District.



Jim Nash, Chairperson

Dated: 7/3, 2019

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairman
Drainage Board for the Henry Graham Drain

FROM: John Basch, Senior Attorney

SUBJECT: Data-Sharing Resolution

DATE: June 23, 2020

Municipalities, drainage districts, and some other governmental agencies have been asked by the Southeast Michigan Council of Governments (SEMCOG) to assist in developing a clearinghouse of Geographical Information System (GIS) data to bolster its new Infrastructure Asset Management Program.

The information collected will allow SEMCOG to better understand the assets throughout the region as it develops a “needs study” for drinking water, along with sanitary sewer and stormwater systems. The material assembled also could help SEMCOG coordinate with other entities to work toward a culture shift that will promote region-wide strategic asset management.

In 2017, this drainage district participated previously in a similar data-sharing program when the State of Michigan conducted the 21st Century Infrastructure Commission to provide a long-term infrastructure strategy on a statewide level. Unfortunately, that program was narrowly focused and did not allow expansion to other entities such as SEMCOG. Today, by participating with SEMCOG, the district can help that regional agency develop a “needs study” for Drinking Water, Sanitary Sewer, and Storm Sewer systems in the region. This program will help SEMCOG coordinate with other entities and work toward a culture shift that will accept strategic asset management. The five main goals of this program are:

- Understanding the overall condition of infrastructure assets
- Strengthening coordination on infrastructure projects to improve cost efficiencies and reduce inconvenience to the public
- Sharing best practices for asset management programs
- Developing a clearinghouse to summarize regional infrastructure needs
- Communicating region-wide priorities at the state level

Recommendation: Adopt the attached resolution to allow the district to share its GIS data to advance the goals of this regional asset management program.

8. Pontiac Clinton River #1 Drain

AGENDA

DRAINAGE BOARD FOR THE PONTIAC CLINTON RIVER NO. 1 DRAIN

June 23, 2020

1. Call meeting to order
2. Approve minutes of meeting of March 28, 2017
3. Public Comments
4. Present Memorandum recommending the Board adopt a resolution to allow the district to share its GIS data to advance the goals of the regional asset management program
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE PONTIAC CLINTON RIVER NO. 1 DRAIN**

March 28, 2017

A meeting of the Drainage Board for the Pontiac Clinton River No. 1 Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 28th day of March, 2017.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Thomas F. Middleton, Chairperson of the Finance Committee,
Oakland County Board of Commissioners

ABSENT: Michael Gingell, Chairperson of the Oakland County Board of Commissioners

Minutes of the meeting held February 28, 2017 were presented for consideration. It was moved by Middleton, supported by Nash, that the minutes be approved.

ADOPTED: Yeas - 2
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

A request for Board approval of payment of invoices in the amount of \$9,321.15 (as attached) was presented. It was moved by Middleton, supported by Nash, that the invoices in the amount of \$9,321.15 be paid as presented.

ADOPTED: Yeas - 2
Nays - 0

It was moved by Nash, supported by Middleton, to certify attendance and authorize pro rata payment of \$25 per day to Mr. Middleton.

ADOPTED: Yeas - 2
Nays - 0

There being no further business, the meeting was adjourned.



Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Pontiac Clinton River No. 1 Drain, Oakland County, Michigan, held on the 28th day of March, 2017, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Pontiac Clinton River No. 1 Drain Drainage District.



Jim Nash, Chairperson

Dated: April 12, 2017

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairman
Drainage Board for the Pontiac Clinton River No. 1 Drain

FROM: John Basch, Senior Attorney

SUBJECT: Data-Sharing Resolution

DATE: June 23, 2020

Municipalities, drainage districts, and some other governmental agencies have been asked by the Southeast Michigan Council of Governments (SEMCOG) to assist in developing a clearinghouse of Geographical Information System (GIS) data to bolster its new Infrastructure Asset Management Program.

The information collected will allow SEMCOG to better understand the assets throughout the region as it develops a “needs study” for drinking water, along with sanitary sewer and stormwater systems. The material assembled also could help SEMCOG coordinate with other entities to work toward a culture shift that will promote region-wide strategic asset management.

In 2017, this drainage district participated previously in a similar data-sharing program when the State of Michigan conducted the 21st Century Infrastructure Commission to provide a long-term infrastructure strategy on a statewide level. Unfortunately, that program was narrowly focused and did not allow expansion to other entities such as SEMCOG. Today, by participating with SEMCOG, the district can help that regional agency develop a “needs study” for Drinking Water, Sanitary Sewer, and Storm Sewer systems in the region. This program will help SEMCOG coordinate with other entities and work toward a culture shift that will accept strategic asset management. The five main goals of this program are:

- Understanding the overall condition of infrastructure assets
- Strengthening coordination on infrastructure projects to improve cost efficiencies and reduce inconvenience to the public
- Sharing best practices for asset management programs
- Developing a clearinghouse to summarize regional infrastructure needs
- Communicating region-wide priorities at the state level

Recommendation: Adopt the attached resolution to allow the district to share its GIS data to advance the goals of this regional asset management program.

9. Ballard Drain

AGENDA

DRAINAGE BOARD FOR THE BALLARD DRAIN

June 23, 2020

1. Call meeting to order
2. Approve minutes of meeting of June 19, 2012
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$23,134
5. Other business
6. Approve pro rata payment to Drainage Board Members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE BALLARD DRAIN**

June 19, 2012

A meeting of the Drainage Board for the Ballard Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 1:45 PM on the 19th day of June, 2012.

The meeting was called to order by the Acting Chairperson.

PRESENT: Kevin R. Larsen, Chief Deputy Water Resources Commissioner and Acting Chairperson on behalf of Commissioner John P. McCulloch

Thomas F. Middleton, Chairperson of the Finance Committee
Oakland County Board of Commissioners

ABSENT: John P. McCulloch, Chairperson and
Oakland County Water Resources Commissioner

Michael Gingell, Chairperson of the Oakland County Board of Commissioners

ALSO

PRESENT: Suzanne Coffey,
Manager

Steve Korth,
Manager

Phil Sanzica,
Chief Engineer

Glenn Appel,
Assistant Chief Engineer

Chuck Lawhorn,
Environmental Planner II

Karen Warren,
Civil Engineer

Gary Nigro,
Civil Engineer

Charles Tischer,
Community Liaison

Megan Barnes,
Paralegal

Holly Conforti,
Chief, Fiscal Services

Karrie Jager,
Accountant

Bonnie Hargraves,
Accountant

John Basch,
Staff Assistant

Mary Ann Scholl,
Staff Assistant

Minutes of the meeting held June 17, 2008 were presented for consideration. It was moved by Middleton, supported by Larsen, that the minutes be approved as presented.

ADOPTED: Yeas - 2
Nays - 0

Acting Chairperson Larsen asked if there were any comments from those in attendance. There were none.

A request for a Special Assessment Roll for the Maintenance of the Ballard Drain in the amount of \$8,025.00 (as attached) was presented for approval. It was moved by Middleton, supported by Larsen, to approve the Special Assessment Roll for the Maintenance of the Ballard Drain in the amount of \$8,025.00.

ADOPTED: Yeas - 2
Nays - 0

It was moved by Larsen, supported by Middleton to certify attendance and authorize pro-rata payment of \$25.00 per day to Mr. Middleton.

ADOPTED: Yeas - 2
Nays - 0

There being no further business, the meeting was adjourned.

Kevin R. Larsen, Acting Chairperson

STATE OF MICHIGAN)
) SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Ballard Drain, Oakland County, Michigan, held on the 19th day of June, 2012 and that the said minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Ballard Drain Drainage District.

Kevin R. Larsen, Acting Chairperson

June _____, 2012

OAKLAND COUNTY WATER RESOURCES COMMISSIONER
MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE
Ballard Drain

Assessment for current fund deficit and estimated maintenance expenses for fiscal years: 2020 through 2022

Last Assessment: \$8,025
Date last assessment approved: 06/19/12

Current Available Cash: (\$14,134)

Expenditure History:	Fiscal Year	Amount
	2013	\$2,754
	2014	\$2,167
	2015	\$3,206
	2016	\$1,643
	2017	\$2,054
	2018	\$2,755
	2019	\$2,998
	YTD 2020	\$1,140

Estimated Expenditures:	Year	Amount
	2020	\$3,000
	2021	\$3,000
	2022	\$3,000
	Total	\$9,000

Recommended Assessment:

Current Cash Deficit	\$14,134
Total Anticipated Expenses 2020 - 2022	\$9,000

TOTAL RECOMMENDED ASSESSMENT \$23,134

Prepared by: Michael R. McMahon Date: 6/23/20
Michael R. McMahon, P.E. - Chief Engineer

Approved by: Steven A. Korth Date: 6/23/20
Steven A. Korth, P.E. - Manager

Note: Current Available Cash as of April 30, 2020, Fiscal Services Division Report.

SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE OF THE BALLARD DRAIN

Public Corporation	*Percentage of Apportionment	Total Amount of Assessment	Payment #1	Payment #2	Payment #3
Township of Orion	83.87771%	\$ 19,404.27	\$ 14,371.61	\$ 2,516.33	\$ 2,516.33
County of Oakland	16.12229%	\$ 3,729.73	\$ 3,729.73	-	-
<hr/>					
Total	100.000%	\$ 23,134.00	\$ 18,101.34	\$ 2,516.33	\$ 2,516.33

*Apportionment based on Final Order of Apportionment dated 03/09/1967.

Assessment Payment Due Date(s): Payment #1 7/31/2020 Payment #2 7/31/2021 Payment #3 7/31/2022

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Ballard Drain for the fiscal years 2020 - 2022 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

Jim Nash
Chairman of the Drainage Board for the Ballard Drain

The foregoing Special Assessment Roll for the maintenance of the Ballard Drain was approved by the Drainage Board on _____.

Jim Nash
Chairman of the Drainage Board for the Ballard Drain

10. Osgood Drain

AGENDA

DRAINAGE BOARD FOR THE OSGOOD DRAIN

June 23, 2020

1. Call meeting to order
2. Approve minutes of meeting of May 18, 2010
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$17,158
5. Present request for reimbursement of the Drain Revolving Fund the amount of \$1,326.39
6. Other business
7. Approve pro rata payment to Drainage Board Members
8. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE OSGOOD DRAIN**

MAY 18, 2010

A meeting of the Drainage Board for the Osgood Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan on the 18th day of May, 2010.

The meeting was called to order by the Acting Chairperson.

PRESENT: Kevin R. Larsen, Acting Chairperson and
Chief Deputy Water Resources Commissioner

Bill Bullard, Jr., Chairperson of the
Oakland County Board of Commissioners

Thomas F. Middleton, Chairperson of the Finance Committee
Oakland County Board of Commissioners

ABSENT: John P. McCulloch, Chairperson and
Oakland County Water Resources Commissioner

ALSO

PRESENT: Suzanne Coffey,
Manager

Philip Sanzica,
Chief Engineer

Charles Tischer,
Community Liaison

Elaine Van Dyke,
Secretary

Nichole Bertucci,
Administrative Assistant

Lynn Sonkiss,
Chief of Fiscal Services

Karrie Jager,
Fiscal Services Division

Minutes of the meeting held March 14, 2000 were presented for consideration. It was moved by Bullard, supported by Middleton, that the minutes be approved as presented.

ADOPTED: Yeas - 3
Nays - 0

Mr. Larsen asked if there were any comments from those in attendance. There were none.

A Special Assessment Roll for Maintenance in the amount of \$8,536 was presented for approval. It was moved by Middleton, supported by Bullard, that the Special Assessment Roll in the amount of \$8,536 be approved.

ADOPTED: Yeas - 3
Nays - 0

A request to reimburse the General Fund in the amount of \$54.72 (as attached) was presented. It was moved by Middleton, supported by Bullard, that the General Fund be reimbursed in the amount of \$54.72.

ADOPTED: Yeas - 3
Nays - 0

A request to reimburse the Drain Equipment Fund in the amount of \$5.72 (as attached) was presented. It was moved by Middleton, supported by Bullard, that the Drain Equipment Fund be reimbursed in the amount of \$5.72.

ADOPTED: Yeas - 3
Nays - 0

A request to reimburse the Drain Revolving Fund in the amount of \$162.89 (as attached) was presented. It was moved by Middleton, supported by Bullard, that the Drain Revolving Fund be reimbursed in the amount of \$162.89.

ADOPTED: Yeas - 3
Nays - 0

It was moved by Larsen, supported by Middleton to certify attendance and authorize pro-rata payment of \$25 per day to both Mr. Bullard and Mr. Middleton.

ADOPTED: Yeas - 3
Nays - 0

There being no further business, the meeting was adjourned.

Kevin R. Larsen, Acting Chairperson

OAKLAND COUNTY WATER RESOURCES COMMISSIONER
MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE
Osgood Drain

Assessment for current fund deficit and estimated maintenance expenses for fiscal years: 2020 through 2022

Last Assessment: \$8,536
Date last assessment approved: 05/18/10

Current Available Cash (\$10,258)

Expenditure History:	Fiscal Year	Amount
	2013	\$673
	2014	\$1,279
	2015	\$723
	2016	\$2,478
	2017	\$2,011
	2018	\$1,094
	2019	\$2,192

Estimated Expenditures:	Year	Amount
	2020	\$2,300
	2021	\$2,300
	2022	\$2,300
	Total	\$6,900

Recommended Assessment:

Current Cash Deficit	\$10,258
Total Anticipated Expenses 2020 - 2022	\$6,900

TOTAL RECOMMENDED ASSESSMENT	\$17,158
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Prepared by: Michael R. McMahon Date: 6/23/20
Michael R. McMahon, P.E. - Chief Engineer

Approved by: Steven A. Korth Date: 6/23/20
Steven A. Korth, P.E. - Manager

Note: Current Available Cash as of April 30, 2020, Fiscal Services Division Report.

SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE OF THE OSGOOD DRAIN

Public Corporation	*Percentage of Apportionment	Total Amount of Assessment	Payment #1	Payment #2	Payment #3
Township of Orion	85.18460%	\$ 14,615.97	\$ 10,697.47	\$ 1,959.25	\$ 1,959.25
County of Oakland	14.81540%	\$ 2,542.03	\$ 2,542.03		-
Total	100.000%	\$ 17,158.00	\$ 13,239.50	\$ 1,959.25	\$ 1,959.25

*Apportionment based on Final Order of Apportionment dated 05/19/1969.

Assessment Payment Due Date(s): Payment #1 7/31/2020 Payment #2 7/30/2021 Payment #3 7/31/2022

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Osgood Drain for the fiscal years 2020 - 2022 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

Jim Nash
Chairman of the Drainage Board for the Osgood Drain

The foregoing Special Assessment Roll for the maintenance of the Osgood Drain was approved by the Drainage Board on _____.

Jim Nash
Chairman of the Drainage Board for the Osgood Drain

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the OSGOOD DRAIN

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting



DATE: June 23, 2020

SUBJECT: Request for Reimbursement of Drain Revolving Fund

The following is a detail of Maintenance charges paid from the Drain Revolving Fund for the period ending June 12, 2020.

Date	Ref No.	Paid To	For	Amount
4/30/2016	V # 1081495	Pipeline Management	Invoice # 2016-024 - Contracted Services - 02/16/16 - 02/29/16	\$ 1,026.64
4/30/2016	V # 1081502	Pipeline Management	Invoice # 2016-019 - Contracted Services - 01/29/16 - 02/15/16	299.75
			Total	\$ 1,326.39

11. Eight Mile Drain

AGENDA

DRAINAGE BOARD FOR THE EIGHT MILE DRAIN

June 23, 2020

1. Call meeting to order
2. Approve minutes of meeting of May 19, 2019
3. Public Comments
4. Present request for Board approval of payment of invoices in the amount of \$1,144
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE EIGHT MILE DRAIN**

May 19, 2020

A meeting of the Drainage Board for the Eight Mile Drain was held at 2:00 p.m. on the 19th day of May, 2020. The meeting was conducted via GoToMeeting in accordance with the Governor's Executive Order 2020-75 due to the ongoing COVID-19 pandemic. Commissioner Nash read a brief statement regarding the current health crisis and its impact on the Chapter 20 meetings, which can be found in its entirety under "Drainage District Policy".

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

David Woodward, Chairperson of the Oakland County Board of Commissioners

Helaine Zack, Chairperson of the Finance Committee, Oakland County Board of Commissioners

Minutes of the meeting held November 26, 2019 were presented for consideration. It was moved by Zack, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

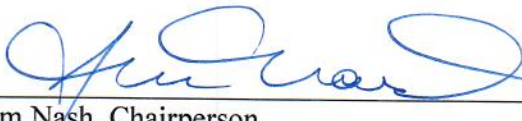
A request for reimbursement of the Drain Revolving Fund in the amount of \$3,643.80 (as attached) was presented. It was moved by Zack, supported by Woodward, to reimburse the Drain Revolving Fund in the amount of \$3,643.80.

ADOPTED: Yeas - 3
Nays - 0

It was moved by Nash, supported by Zack, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Zack and Mr. Woodward.

ADOPTED: Yeas - 3
Nays - 0

There being no further business, the meeting was adjourned.



Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the Eight Mile Drain, Oakland County, Michigan, held on the 19th day of May, 2020, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Eight Mile Drain Drainage District.



Jim Nash, Chairperson

Dated: June 1 , 2020

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the EIGHT MILE DRAIN

FROM: Shawn Phelps, Chief of Fiscal Services *sjphelps*
OCWRC Accounting

DATE: June 23, 2020

SUBJECT: Request for Board approval of the payment of the following invoices:

Paid To	Reference	For	Amount
Spalding DeDecker	TBP	Invoice # 00083098 - Inspection - 04/06/20 -05/30/20	\$ 1,144.00
		Total	\$ 1,144.00

12. George W. Kuhn Drain

AGENDA

DRAINAGE BOARD FOR THE GEORGE W. KUHN DRAIN

June 23, 2020

1. Call meeting to order
2. Approve minutes of meeting of May 19, 2020
3. Public Comments
4. Present Memorandum recommending the Board adopt a resolution to allow the district to share its GIS data with SEMCOG to advance the goals of the regional asset management program
5. Present Memorandum recommending the Board approve the additional cost to extend project insurance coverage for the Dequindre Pump Station Project to December 12, 2020 in the amount of \$27,554
6. Present Memorandum recommending the Board authorize ECT to commence work on Wet Weather Sampling and Support for Permit Compliance for a not-to-exceed cost of \$234,300
7. Present Memorandum recommending the Board to approve the purchase of the HL 7 water quality meter from Ott/Hydromet for a cost of \$13,422.02
8. Present Construction Estimate No. 10 for Weiss Construction in the amount of \$187,480.55 with a transfer of \$4,453.85 to the Oakland County Treasurer
9. Present request for Board approval of payment of invoices in the amount of \$81,192.30
10. Closed session
11. Other business
12. Approve pro rata payment to Drainage Board members
13. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE GEORGE W. KUHN DRAIN**

May 19, 2020

A meeting of the Drainage Board for the George W. Kuhn Drain was held at 2:00 p.m. on the 19th day of May, 2020. The meeting was conducted via GoToMeeting in accordance with the Governor's Executive Order 2020-75 due to the ongoing COVID-19 pandemic. Commissioner Nash read a brief statement regarding the current health crisis and its impact on the Chapter 20 meetings, which can be found in its entirety under "Drainage District Policy".

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

David Woodward, Chairperson of the Oakland County Board of Commissioners

Helaine Zack, Chairperson of the Finance Committee, Oakland County Board of Commissioners

Minutes of the meeting held April 28, 2020 were presented for consideration. It was moved by Zack, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

Construction Estimate No. 9 for Weiss Construction in the amount of \$102,117.45 (as attached) was presented. It was moved by Zack, supported by Woodward, to approve Construction Estimate No. 9 in the amount of \$102,117.45 as presented.

ADOPTED: Yeas - 3
Nays - 0

Annette DeMaria (ECT) gave a presentation to the Board regarding the Drainage District stormwater wet weather sampling results. It was moved by Woodward, supported by Zack, to receive and file the presentation.

ADOPTED: Yeas - 3
Nays - 0

A request for Board approval of payment of invoices in the amount of \$57,120.79 (as attached) was presented. It was moved by Zack, supported by Woodward, that the invoices in the amount of \$57,102.79 be paid as presented.

ADOPTED: Yeas - 3
Nays - 0

It was moved by Nash, supported by Zack, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Zack and Mr. Woodward.

ADOPTED: Yeas - 3
Nays - 0

There being no further business, the meeting was adjourned.

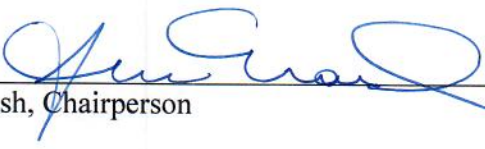


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the George W. Kuhn Drain, Oakland County, Michigan, held on the 19th day of May, 2020, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for George W. Kuhn Drain Drainage District.



Jim Nash, Chairperson

Dated: June 1 , 2020

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairman
Drainage Board for the George W. Kuhn Drain

FROM: John Basch, Senior Attorney

SUBJECT: Data-Sharing Resolution

DATE: June 23, 2020

Municipalities, drainage districts, and some other governmental agencies have been asked by the Southeast Michigan Council of Governments (SEMCOG) to assist in developing a clearinghouse of Geographical Information System (GIS) data to bolster its new Infrastructure Asset Management Program.

The information collected will allow SEMCOG to better understand the assets throughout the region as it develops a “needs study” for drinking water, along with sanitary sewer and stormwater systems. The material assembled also could help SEMCOG coordinate with other entities to work toward a culture shift that will promote region-wide strategic asset management.

In 2017, this drainage district participated previously in a similar data-sharing program when the State of Michigan conducted the 21st Century Infrastructure Commission to provide a long-term infrastructure strategy on a statewide level. Unfortunately, that program was narrowly focused and did not allow expansion to other entities such as SEMCOG. Today, by participating with SEMCOG, the district can help that regional agency develop a “needs study” for Drinking Water, Sanitary Sewer, and Storm Sewer systems in the region. This program will help SEMCOG coordinate with other entities and work toward a culture shift that will accept strategic asset management. The five main goals of this program are:

- Understanding the overall condition of infrastructure assets
- Strengthening coordination on infrastructure projects to improve cost efficiencies and reduce inconvenience to the public
- Sharing best practices for asset management programs
- Developing a clearinghouse to summarize regional infrastructure needs
- Communicating region-wide priorities at the state level

Recommendation: Adopt the attached resolution to allow the district to share its GIS data to advance the goals of this regional asset management program.

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER**

MEMORANDUM

TO: Jim Nash, Chairperson of the George W. Kuhn Drain Drainage Board

FROM: Gary Nigro, P.E.

SUBJECT: Dequindre Pump Station Rehabilitation Project
George W. Kuhn Drain Drainage District

DATE: June 10, 2020

The Drainage Board for the George W. Kuhn Drain had previously approved an Owner Controlled Insurance Program (OCIP) for the Dequindre Pump Station Rehabilitation Project administered by Meadowbrook Insurance Agency. The terms of this OCIP is set to expire on June 12, 2020.

This project is scheduled to be completed by December (2020). There is a need to extend the OCIP for an additional (6) months to assure there is no lapse of coverage. This extension will continue OCIP coverage through December 12, 2020.

The attached letter from Meadowbrook Insurance Agency, dated June 10, 2020, identifies the cost of this extension to be \$27,554.00. This additional cost will not increase the overall budget of the Dequindre Pump Station Project while still providing liability protection to the Drainage Board, as this project is finalized.

Requested Action: Approve the additional cost to extend OCIP coverage for the Dequindre Pump Station Project to December 12, 2020 in the amount of \$27,554.00.

June 10, 2020

Craig Tiell
Civil Engineer II
Water Resources Commissioner
One Public Works Drive, Bldg 95 West
Waterford, MI 48328

RE: Owner Controlled Insurance Program

Hi Craig,

To confirm our conference call this afternoon, Meadowbrook Insurance Agency has been instructed by WRC to provide a six month extension to the Owner Controlled Insurance Program (OCIP) that will expire on June 12, 2020. The extension of coverage is needed to allow additional time to complete the Bio-solids and Dequindre Pump Rehab Projects. With the extension, the OCIP policies will now expire on December 12, 2020.

The additional premium for the extension is \$121,658. Invoicing will be allocated as follows:

- Bio-Solids Project - \$94,104.
- Dequindre Pump Rehab - \$27,554.

We appreciate your help. Please let us know if any questions.

Regards,

James Kelley, CPCU, LIC

cc. Sal Saputo, Phillip Anderson

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairperson George W. Kuhn Drain Drainage Board

FROM: Joel Kohn, Environmental Planner II

SUBJECT: ECT - Wet Weather Sampling and Support for Permit Compliance

DATE: June 23, 2020

The Michigan Department of Environment, Great Lakes and Energy (EGLE) water quality monitoring has resulted in the Red Run Watershed being designated as a Total Maximum Daily Load (TMDL) area for E.coli bacteria. All discharges to the Red Run Drain are subject to these TMDL requirements which is the reason we are implementing this E.coli sampling project.

Previously, this board authorized Environmental Consulting and Technology, Inc. (ECT) to complete wet weather samples for the purpose of identifying E.coli sources, and DNA source tracking to determine if the sources are human in origin or from animals. ECT was also tasked with developing a plan to identify and eliminate human sources of E.coli and coordinating efforts and information with local stakeholders.

The next phase of work consists of ECT collecting additional wet weather samples during “first flush” conditions to determine if illicit discharges are entering the storm drains tributary to the Red Run Drain. Sampling will be conducted at nine (9) locations during four (4) wet weather events; three first flush events and one larger (>1.5 inch) event. To capture first flush conditions automatic samplers will be installed as needed. The composite samples will be retrieved following each rain event and samples will be analyzed for *E. coli*, Human *Bacteroides* microbial source tracking (MST) marker, total suspended solids (TSS), biochemical oxygen demand (BOD), ammonia (NH₃) and total phosphorus (TP).

ECT will estimate the annual loads for TSS, BOD, NH₃ and TP discharging from the GWK RTB and the associated storm drains. The stormwater loads will be based on estimated runoff volume and constituent concentrations measured by ECT during the previous 2019 and 2020 work. ECT will compare GWK effluent sampling data to other RTB's in Southeast Michigan and will prepare a summary report describing the data assessment methodology and results.

Further, the Great Lakes Water Authority (GLWA) has developed a new regional Watershed Committee that will embrace the integrated planning approach to support its wastewater master plan and permit. A primary goal of this committee is to establish a regional watershed monitoring program. Given the applicability of this integrated planning approach to Oakland County's MS4 permit and the GWK RTB permit, WRC is a key member of the Watershed Committee. ECT's scope includes technical support to assist WRC with these ongoing meetings.

Recommended Action: Authorize ECT to commence work outlined in its June 15, 2020 proposal for a not-to-exceed cost of \$234,300.

June 15, 2020

Jim Wineka
Oakland County Water Resources Commissioner's Office
1 Public Works Drive
Waterford, MI 48328

RE: Wet Weather Sampling and Support for Permit Compliance

Dear Mr. Wineka:

At your request, Environmental Consulting & Technology, Inc. (ECT) has prepared this proposal to support the Oakland County Water Resources Commissioner's office (WRC) with the NPDES permit requirements in the GWK Drainage District. This work will support the integrated planning approach for the GWK Retention Treatment Basin (RTB) wastewater permit and Oakland County's municipal separate storm sewer system (MS4) permit, specifically the illicit discharge and total maximum daily load programs.

The scope of work is divided into four tasks:

1. Wet Weather Sample Collection and Analysis
2. Dry Weather Microbial Source Tracking (MST) Analysis
3. Pollutant Load Modeling
4. GLWA Watershed Committee Support

SCOPE OF WORK

Task 1. Wet Weather Sample Collection and Analysis

WRC wishes to conduct wet weather sampling during first flush conditions to determine if there are illicit discharges entering the storm drains tributary to the Red Run Drain. Sampling is desired on the following drains:

- | | |
|-----------------------------|-----------------|
| • Red Run at Dequindre Road | • Kutchey Drain |
| • GWK North | • Sharkey Drain |
| • GWK South | • Walker Drain |
| • Henry Graham North | • Wilson Drain |
| • Henry Graham South | |

ECT will develop a sampling plan that outlines sample collection procedures and sampling locations for the drains listed above. The sampling plan will be provided to WRC for review, and comments will be addressed by ECT.

Sampling will be conducted at the nine locations during four wet weather events: three first flush events and one larger (>1.5 inch) event. To capture first flush conditions, ECT will install an automatic sampler, modem and flow meter at each sampling site, except on the Red Run Drain where only an autosampler and modem will be installed. The samplers will be programmed to capture time-paced sample aliquots to capture a composite sample at

each site. The composite samples will be retrieved following each rain event and samples will be analyzed for *E. coli*, Human *Bacteroides* microbial source tracking (MST) marker, total suspended solids (TSS), biochemical oxygen demand (BOD), ammonia (NH₃) and total phosphorus (TP). The TSS, BOD, NH₃ and TP data will be used to support Task 3.

In addition, a fourth rain event will be sampled during high flow conditions to determine if there are high level overflows from the sanitary sewers to the storm drains. For this event, ECT will use the rainfall data from the GWK RTB to guide sample collection efforts. When a minimum rainfall threshold is met, likely 1.5 inches, the autosamplers will be triggered to capture a composite sample from each site.

After the last sampling event, the sampling equipment will be removed from the drains.

A summary report will be prepared that describes whether human fecal sources are impacting the storm drains. The drains will be prioritized for additional investigations using the previously developed protocol, and recommendations will be provided for next steps to narrow down the location of potential human fecal bacteria sources. The report will be provided to WRC for review, and comments will be addressed.

The sampling results and recommendations for next steps will be presented to the appropriate Drain Board and the City of Madison Heights.

ECT assumes that the rental of autosamplers, flow meters and rain gauge are limited to 4 months, and that WRC will provide us access to the rain gauge at GWK RTB so we have the data in real time.

Task 2. Dry Weather MST Analysis

To help determine if illicit connections are discharging to the storm drains in dry weather conditions, ECT will analyze dry weather samples for the Human *Bacteroides* MST marker. Samples will be collected by WRC staff and provided to ECT immediately following sample collection. ECT will package the samples and ship them to MSU for MST analysis. ECT will review the MST data and provide a brief written interpretation of the MST results for WRC's use.

ECT assumes that there will be three sampling events at eight sites resulting in analysis of 24 samples.

Task 3. Pollutant Load Modeling

In preparation of an integrated planning approach for the GWK RTB, WRC wishes to understand 1) how the constituent load at the GWK RTB compares to stormwater load the Red Run Drain, and 2) how the quality of the GWK RTB effluent compares to other RTBs in southeast Michigan. Item 2 will provide context to the GWK RTB data.

3A. GWK RTB and Stormwater Loads

ECT will estimate the annual load of constituents discharging from the GWK RTB and the storm drains listed on page 1 (excluding the Red Run Drain). The constituents will include TSS, BOD, NH₃ and TP. The RTB loads will be based on the RTB discharge volume and constituent concentrations provided by WRC for 2019 and 2020. The stormwater loads will be based on runoff volume and the constituent concentrations measured by ECT during 2019 and 2020. The runoff volume will be estimated using land cover, soil type and annual rainfall volume. Note that this simplistic method for modeling the stormwater loads is likely more conservative (an overestimate) in an urbanized area than what would be calculated using a more sophisticated model, but it is less costly which is appropriate at this stage of WRC's integrated planning effort. When more accuracy is needed and once the stormwater drainage network is available, the EPA's Storm Water Management Model (SWMM) model can be used to redetermine the runoff volume and loads.

3B. Comparison to other RTBs

ECT will request from the State the 2019 and 2020 effluent concentration data from the 16 other RTBs in southeast Michigan. An average concentration will be determined for each constituent (*E. coli*, fecal coliform, TSS, BOD, NH₃ and TP) and they will be compared to the GWK effluent water quality.

ECT will prepare a summary report describing the data assessment methodology and results for Tasks 3A and 3B. The report will 1) compare the annual loads for TSS, BOD, NH₃ and TP and average *E. coli* concentrations between the RTB and the storm drains, and 2) compare the GWK RTB water quality (*E. coli*, fecal coliform, TSS, BOD, NH₃ and TP concentrations) to the other RTBs.

Task 4. GLWA Watershed Committee Support

The Great Lakes Water Authority (GLWA) is in the process of developing a regional Watershed Committee that uses an integrated planning approach to support their wastewater master plan and permit. One of the goals of the Committee is to establish a regional watershed monitoring program. Given the applicability of an integrated approach to Oakland County's MS4 permit and the GWK RTB permit, WRC, along with other counties, is part of the Core Team that is setting the priorities for the Watershed Committee.

ECT will support WRC in preparation of Committee meetings. This will include advice on sampling locations, establishing year 1 priorities, collection of historic data, and outreach to GLWA.

ECT assumes up to 30 hours of effort for this task.

SCHEDULE

Given that the Task 1 sampling is weather dependent, and that equipment costs are subject to the rental period, ECT suggests that we target Fall 2020 for wet weather sampling, instead of beginning in the Summer. All work will be completed within 9 months of notice to proceed according to the schedule below.

Activity	Start	End
Notice to Proceed	7/1/2020	
Task 1. Wet weather sample collection and analysis		
Develop sampling plan	7/8/2020	7/15/2020
Meeting 1 – Sampling plan review	7/16/2020	7/22/2020
Comments from WRC/Finalize sampling plan	7/23/2019	7/28/2020
Secure, program and install autosamplers and flow meters	8/1/2020	8/30/2020
Wet weather sampling	9/1/2020	11/20/2020
Draft sampling report	12/1/2020	12/30/2020
Meeting 2 - Review report with WRC	1/8/2021	1/22/2021
Finalize sampling report	1/25/2021	2/5/2021
Meeting 3 - Present results to Madison Heights	2/8/2021	2/19/2021
Meeting 4 - Present results to drain board	Feb 2021 – Mar 2021	
Task 2. Dry weather MST analysis	7/1/2020	9/30/2020
Task 3. Pollutant load modeling		
RTB data request to the State	8/1/2020	9/1/2020
RTB data analysis	9/1/2020	9/30/2020
Modeling of GWK RTB and stormwater loads	10/1/2020	11/1/2020
Draft modeling report	11/1/2020	12/15/2020
Finalize modeling report	1/25/2021	2/5/2021
Task 4. GLWA Watershed Committee support	7/1/2020	3/30/2021
Project End		3/30/2021

TERMS AND CONDITIONS

This scope of work will be completed on a time and materials basis, not to exceed \$234,300 according to the table below. The budget detail is provided in Attachment A.

Task	Estimated Budget
Task 1. Wet Weather Sample Collection and Analysis	\$185,000
Task 2. Dry Weather MST Analysis	\$7,800
Task 3. Pollutant Load Modeling	\$35,000
Task 4. GLWA Watershed Committee Support	\$6,500
Total	\$234,300

Jim Wineka
OCWRC
June 15, 2020
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This work will be performed under ECT's current contract with WRC (Contract #0004848). If you are in agreement with this proposal, we ask that you send a purchase order to us at ademaria@ectinc.com.

ECT appreciates the opportunity to serve WRC. If you have any questions, please contact me at 313-963-6600 or ademaria@ectinc.com.

Sincerely,

ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.



Annette DeMaria, P.E., PMP
Principal Engineer



Sanjiv K. Sinha, P.E., PhD
Senior Vice President

Attachment

M:\PROPOSALS\OAKLAND COUNTY\P20WR-0035 2020 GWK WET WEATHER SAMPLING\PROPOSAL 061520.DOCX.

Attachment A. 2020 GWK Wet Weather Sampling Cost Summary

Labor		1. Wet Weather Sample Collection & Analysis		2. Dry Weather MST Analysis		3. Pollutant Load Modeling		4. GLWA Watershed Committee Support		Total	
Professional Services		Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Cost
Principal Engineer		128	\$27,648	2	\$432	68	\$14,688	30	\$6,480	228	\$ 49,248
Senior Engineer			\$0		\$0	8	\$1,480		\$0	8	\$ 1,480
Sr. Associate Engineer/Scientist		170	\$22,780	18	\$2,412		\$0		\$0	188	\$ 25,192
Associate Engineer/Scientist II			\$0		\$0	128	\$14,720		\$0	128	\$ 14,720
Associate Engineer/Scientist		251	\$27,108		\$0	34	\$3,672		\$0	285	\$ 30,780
<i>Labor Subtotal</i>		549	\$77,536	20	\$2,844	238	\$34,560	30	\$6,480	837	\$121,420
Other Direct Costs											
<u>Equipment</u>											
Autosampler, Flow meter, modem, and assessorry rental	\$1,705	36	\$61,380		\$0		\$0		\$0		\$61,380
Cellular service	\$ 50	36	\$1,800		\$0		\$0		\$0		\$1,800
Marine Batteries	\$ 120	18	\$2,160		\$0		\$0		\$0		\$2,160
Confined space entry equipment	\$ 200	6	\$1,200		\$0		\$0		\$0		\$1,200
Gas meter	\$ 100	6	\$600		\$0		\$0		\$0		\$600
Field truck	\$ 75	10	\$750		\$0		\$0		\$0		\$750
<u>Analytical</u>											
Paragon E. coli	\$ 40	44	\$1,760		\$0		\$0		\$0		\$1,760
MSU Bacterodies	\$ 152	44	\$6,688	27	\$4,104		\$0		\$0		\$10,792
Other (TP, BOD, NH3, TSS)	\$ 106	33	\$3,498		\$0		\$0		\$0		\$3,498
<u>Supplies/Consumables</u>											
Flow meter mounts	\$ 200	9	\$1,800		\$0		\$0		\$0		\$1,800
Sampling supplies	\$ 30	8	\$240		\$0		\$0		\$0		\$240
Sample bottles	\$ 2	44	\$88	27	\$54		\$0		\$0		\$142
Shipping to MSU	\$ 100	4	\$400	3	\$300		\$0		\$0		\$700
Mileage-meeting	\$ 0.56	100	\$56		\$0		\$0		\$0		\$56
<i>ODC Subtotal</i>			\$82,420		\$4,458		\$0		\$0		\$86,878
ODC markup	10%		\$8,242		\$446		\$0		\$0		\$8,688
Contingency for Unknowns			\$16,802		\$52		\$440		\$20		\$17,314
TOTAL COST			\$ 185,000		\$ 7,800		\$ 35,000		\$ 6,500		\$234,300

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairperson George W. Kuhn Drain Drainage Board

FROM: Joel Kohn, Environmental Planner II

SUBJECT: Purchase of Ott / Hydromet HL 7 Water Quality Meter

DATE: June 23, 2020

The Environmental Unit's existing water quality sampling equipment is outdated and no longer functional to meet the requirements of the Federal Stormwater NPDES Permit. Based on our extensive review of available water quality meters, we recommend the purchase of an HL 7 water quality meter available from Ott / Hydromet for a cost of \$13,422.02, which includes the necessary service maintenance agreement. A quote for this meter is attached for reference.

This meter will assist WRC environmental staff in collecting necessary sampling data for permit requirements, in responding to water quality complaints, and with the GWK sponsored water quality education programs conducted at various water festivals in the area every year. This meter will sample for turbidity, conductivity, dissolved oxygen, pH, ammonium and also includes a depth sensor flow estimating purposes.

Recommended Action: We request board approval to purchase the HL 7 water quality meter from Ott / Hydromet for a cost of \$13,422.02 as outlined in their proposal.

Date 16 Mar 2020
Quotation Number 20-014394
Valid For 60 Days

Bill To:
OAKLAND COUNTY DRAIN COMMISSIONER
ONE PUBLIC WORKS DRIVE BUILDING 95
WEST
WATERFORD, Michigan 48328-1907
fadoirr@oakgov.com

Ship To:
OAKLAND COUNTY DRAIN COMMISSIONER
ONE PUBLIC WORKS DRIVE BUILDING 95
WEST
WATERFORD, Michigan 48328-1907

No	Part #	Product Description	Qty	Unit Price (USD)	Discount	Ext. Price (USD)
1	HL7TABATT	Hydrolab HL7 sonde with internal battery power, temperature and other integrated sensors TOP ASSEMBLY, WITH BATTERY, HL7	1.0	5,607.00	15.00%	4,765.95
2	HLTURB_SC_BRUSH	SENSOR, TURBIDITY OPTION W/BRUSH, HL7 Turbidity sensor integrated to Hydrolab HL7 sonde - includes central cleaning brush	1.0	1,909.00	15.00%	1,622.65
3	HLCOND	SENSOR, CONDUCTIVITY OPTION Conductivity sensor integrated to Hydrolab HL Series sonde	1.0	447.00	15.00%	379.95
4	HLLDO	aa SENSOR, LDO OPTION Luminescent Dissolved Oxygen (LDO) sensor integrated to Hydrolab HL Series sonde	1.0	1,626.00	15.00%	1,382.10
5	HLPHORPIREF	SENSOR, PH ORP INTEGRATED REF OPTION, HL pH and ORP sensor integrated to Hydrolab HL Series sonde with integrated reference	1.0	923.00	15.00%	784.55
6	HLNH4	SENSOR, AMMONIUM OPTION Ammonium ISE sensor integrated to Hydrolab HL sonde	1.0	615.00	15.00%	522.75
7	HL100MDEPTH	aa DEPTH, 100m OPTION, HL 100 meter depth sensor integrated to Hydrolab HL Series sonde	1.0	588.00	15.00%	499.80
8	SVRHL	ee SURVEYOR HL Hydrolab Surveyor HL	1.0	2,091.00	15.00%	1,777.35
9	CZL015	CABLE, LIGHTWEIGHT MARINE, OVERMOLDED, 15M, HL 15 meter lightweight deployment cable for Hydrolab HL Series sonde	1.0	575.00	15.00%	488.75
10	BSPHL7	Bnch Svc-Hydrolab Sonde HL7 Bench Service includes: Repair and Preventative Maintenance - parts & labor and	1.0	1,100.00	15.00%	935.00

	calibration - all performed at the factory, unlimited technical support calls, and free firmware updates. Please see service terms and conditions for additional details on our service plans, and to ensure you have an opportunity to review our environmental and safety requirements.			
Group Subtotal Price				13,158.85

Notes:

Payment Terms	Net 30 w/Approved Credit
Freight Terms	EXW - Ex Works Origin
Expected Delivery Time	
Sales Tax	Proof of tax exempt status or payment of sales tax is the responsibility of the buyer

USD

Total Price :	13,158.85
Tax :	TBD
Freight :	263.17
Grand Total Price :	13,422.02

If you have any questions or need further information, please don't hesitate to contact me. I look forward to hearing from you soon.

Sincerely,
 Brent Register
 Email: brent.register@otthydromet.com, Phone: 9703971094
 Prepared by: Brent Register

Terms and Conditions

ADVANTAGES OF SIMPLIFIED SHIPPING AND HANDLING

<u>Safe & Fast Delivery</u> <ul style="list-style-type: none"> ✓ Receive tracking numbers on your order acknowledgement ✓ Hach will assist with claims if an order is lost or damaged in shipment 	<u>Save Time – Less Hassle</u> <ul style="list-style-type: none"> ✓ No need to set up deliveries for orders or to schedule pickup ✓ Hach ships order as product is available, at no additional charge, when simplified shipping and handling is used. 	<u>Save Money</u> <ul style="list-style-type: none"> ✓ No additional invoice to process – save on time and administrative costs ✓ Only pay shipping once, even if multiple shipments are required
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STANDARD SIMPLIFIED SHIPPING AND HANDLING CHARGES ^{1,2,3} <i>Pricing Effective 8/31/2019</i>					
Total Price of Merchandise Ordered	Standard Surface (Mainland USA)	Second Day Delivery (Mainland USA)	Next Day Delivery (Mainland USA)	Second Day Delivery (Alaska & Hawaii)	Next Day Delivery (Alaska & Hawaii)
\$0.00 - \$49.99	\$11.99	\$29.99	\$55.93	\$48.14	\$91.51
\$50.00 - \$149.99	\$19.06	\$56.18	\$106.00	\$80.56	\$153.15
\$150.00 - \$349.99	\$33.48	\$89.32	\$181.94	\$112.71	\$219.36
\$350.00 - \$649.99	\$46.63	\$121.94	\$242.50	\$152.43	\$295.17
\$650.00 - \$949.99	\$58.77	\$127.42	\$266.65	\$157.77	\$297.40
\$950.00 - \$1,999.99	\$73.94	\$157.23	\$332.46	\$187.11	\$362.04
\$2,000.00 - \$3,999.99	\$85.36	\$167.09	\$342.29	\$194.36	\$369.69
\$4,000.00 - \$5,999.99	\$98.96	\$173.55	\$358.82	\$195.26	\$380.35
\$6,000.00 - \$7,999.99	\$116.93	\$197.60	\$408.56	\$215.38	\$415.24
\$8,000.00 - \$9,999.99	\$133.43	\$224.55	\$438.79	\$240.27	\$455.68
Over \$10,000	2% of Net Order Value	4% of Net Order Value	6% of Net Order Value	4% of Net Order Value	6% of Net Order Value

1 Shipping & Handling charges shown are only applicable to orders billing and shipping to U.S. destinations. Shipping & Handling charges will be prepaid and added to invoice. Shipping & Handling for the Pick&Ship Program is charged on each shipment release and is based on the total price of each shipment release. Shipping & Handling charges are subject to change without notice.

2 Additional Shipping & Handling charges will be applied to orders containing bulky and/or especially heavy orders. Refrigerated and all weather Samplers do not qualify for simplified Shipping & Handling charges, and are considered heavy products. Dissolved Oxygen Sensors can be damaged if exposed to temps below freezing, causing sensor failure. Must be shipped over night or 2nd day air during the cold weather months.

3 Orders shipping to Alaska or Hawaii: Additional Shipping & Handling charges may be applied at time of order processing. Second Day and Next Day delivery is not available to all destinations.

4 Hach Company will assess a collect handling fee on orders with collect shipping terms. This handling fee covers the additional costs that Hach Company incurs from processing and managing collect shipments.

SALES TAX

Sales Tax is not included in the attached quotation. Applicable sales and usage taxes will be added to your invoice, at the time of order, based on U.S. destination of goods, unless a valid resale/exemption certificate for destination state is provided to the above address or fax number, attention of the Tax Dept.

TERMS & CONDITIONS OF SALE FOR HACH COMPANY PRODUCTS AND SERVICES

This document sets forth the Terms & Conditions of Sale for goods manufactured and/or supplied, and services provided, by Hach Company of Loveland, Colorado ("Hach") and sold to the original purchaser thereof ("Buyer"). Unless otherwise specifically stated herein, the term "Hach" includes only Hach Company and none of its affiliates. Unless otherwise specifically stated in a previously-executed written purchase agreement signed by authorized representatives of Hach and Buyer, these Terms & Conditions of Sale establish the rights, obligations and remedies of Hach and Buyer which apply to this offer and any resulting order or contract for the sale of Hach's goods and/or services ("Products").

1. **APPLICABLE TERMS & CONDITIONS:** These Terms & Conditions of Sale are contained directly and/or by reference in Hach's offer, order acknowledgment, and invoice documents. The first of the following acts constitutes an acceptance of Hach's offer and not a counteroffer and creates a contract of sale ("Contract") in accordance with these Terms & Conditions: (i) Buyer's issuance of a purchase order document against Hach's offer; (ii) acknowledgement of Buyer's order by Hach; or (iii) commencement of any performance by Hach pursuant to Buyer's order. Provisions contained in Buyer's purchase documents (including electronic commerce interfaces) that materially alter, add to or subtract from the provisions of these Terms & Conditions of Sale are not a part of the Contract.

2. **CANCELLATION:** Buyer may cancel goods orders subject to fair charges for Hach's expenses including handling, inspection, restocking, freight and invoicing charges as applicable, provided that Buyer returns such goods to Hach at Buyer's expense within 30 days of delivery and in the same condition as received. Buyer may cancel service orders on ninety (90) day's prior written notice and refunds will be prorated based on the duration of the service plan. Inspections and re-instatement fees may apply upon cancellation or expiration of service programs. Seller may cancel all or part of any order prior to delivery without liability if the order includes any Products that Seller determines may not comply with export, safety, local certification, or other applicable compliance requirements.

3. **DELIVERY:** Delivery will be accomplished FCA Hach's facility located in Ames, Iowa or Loveland, Colorado, United States (Incoterms 2010). Legal title and risk of loss or damage pass to Buyer upon transfer to the first carrier. Hach will use commercially reasonable efforts to deliver the Products ordered herein within the time specified on the face of this Contract or, if no time is specified, within Hach's normal lead-time necessary for Hach to deliver the Products sold hereunder. Upon prior agreement with Buyer and for an additional charge, Hach will deliver the Products on an expedited basis. Standard service delivery hours are 8 am – 5 pm Monday through Friday, excluding holidays.

4. **INSPECTION:** Buyer will promptly inspect and accept any Products delivered pursuant to this Contract after receipt of such Products. In the event the Products do not conform to any applicable specifications, Buyer will promptly notify Hach of such nonconformance in writing. Hach will have a reasonable opportunity to repair or replace the nonconforming product at its option. Buyer will be deemed to have accepted any Products delivered hereunder and to have waived any such nonconformance in the event such a written notification is not received by Hach within thirty (30) days of delivery.

5. **PRICES & ORDER SIZES:** All prices are in U.S. dollars and are based on delivery as stated above. Prices do not include any charges for services such as insurance; brokerage fees; sales, use, inventory or excise taxes; import or export duties; special financing fees; VAT, income or royalty taxes imposed outside the U.S.; consular fees; special permits or licenses; or other charges imposed upon the production, sale, distribution, or delivery of Products. Buyer will either pay any and all such charges or provide Hach with acceptable exemption certificates, which obligation survives performance under this Contract. Hach reserves the right to establish minimum order sizes and will advise Buyer accordingly.

6. **PAYMENTS:** All payments must be made in U.S. dollars. For Internet orders, the purchase price is due at the time and manner set forth at www.hach.com. Invoices for all other orders are due and payable NET 30 DAYS from date of the invoice without regard to delays for inspection or transportation, with payments to be made by check to Hach at the above address or by wire transfer to the account stated on the front of Hach's invoice, or for customers with no established credit, Hach may require cash or credit card payment in advance of delivery. In the event payments are not made or not made in a timely manner, Hach may, in addition to all other remedies provided at law, either: (a) declare Buyer's performance in breach and terminate this Contract for default; (b) withhold future shipments until delinquent payments are made; (c) deliver future shipments on a cash-with-order or cash-in-advance basis even after the delinquency is cured; (d) charge interest on the delinquency at a rate of 1-1/2% per month or the maximum rate permitted by law, if lower, for each month or part thereof of delinquency in payment plus applicable storage charges and/or inventory carrying charges; (e) repossess the Products for which payment has not been made; (f) recover all costs of collection including reasonable attorney's fees; or (g) combine any of the above rights and remedies as is practicable and permitted by law. Buyer is prohibited from setting off any and all monies owed under this from any other sums, whether liquidated or not, that are or may be due Buyer, which arise out of a different transaction with Hach or any of its affiliates. Should Buyer's financial responsibility become unsatisfactory to Hach in its reasonable discretion, Hach may require cash payment or other security. If Buyer fails to meet these requirements, Hach may treat such failure as reasonable grounds for repudiation of this Contract, in which case reasonable cancellation charges shall be due Hach. Buyer grants Hach a security interest in the Products to secure payment in full, which payment releases the security interest but only if such payments could not be considered an avoidable transfer under the U.S. Bankruptcy Code or other applicable laws. Buyer's insolvency, bankruptcy, assignment for the benefit of creditors, or dissolution or termination of the existence of Buyer, constitutes a default under this Contract and affords Hach all the remedies of a secured party under the U.C.C., as well as the remedies stated above for late payment or non-payment. See ¶20 for further wire transfer requirements.

7. **LIMITED WARRANTY:** Hach warrants that Products sold hereunder will be free from defects in material and workmanship and will, when used in accordance with the manufacturer's operating and maintenance instructions, conform to any express written warranty pertaining to the specific goods purchased, which for most Hach instruments is for a period of twelve (12) months from delivery. Hach warrants that services furnished hereunder will be free from defects in workmanship for a period of ninety (90) days from the completion of the services. Parts provided by Hach in the performance of services may be new or refurbished parts functioning equivalent to new parts. Any non-functioning parts that are repaired by Hach shall become the property of Hach. No warranties are extended to consumable items such as, without limitation, reagents, batteries, mercury cells, and light bulbs. All other guarantees, warranties, conditions and representations, either express or implied, whether arising under any statute, law,

commercial usage or otherwise, including implied warranties of merchantability and fitness for a particular purpose, are hereby excluded. The sole remedy for Products not meeting this Limited Warranty is replacement, credit or refund of the purchase price. This remedy will not be deemed to have failed of its essential purpose so long as Hach is willing to provide such replacement, credit or refund.

8. INDEMNIFICATION: Indemnification applies to a party and to such party's successors-in-interest, assignees, affiliates, directors, officers, and employees ("Indemnified Parties"). Hach is responsible for and will defend, indemnify and hold harmless the Buyer Indemnified Parties against all losses, claims, expenses or damages which may result from accident, injury, damage, or death due to Hach's breach of the Limited Warranty. Buyer is responsible for and will defend, indemnify and hold harmless the Hach Indemnified Parties against all losses, claims, expenses or damages which may result from accident, injury, damage, or death due to negligence, misuse or misapplication of any goods or services, violations of law, or the breach of any provision of this Contract by the Buyer, its affiliates, or those employed by, controlled by or in privity with them. Buyer's workers' compensation immunity, if any, does not preclude or limit its indemnification obligations.

9. PATENT PROTECTION: Subject to all limitations of liability provided herein, Hach will, with respect to any Products of Hach's design or manufacture, indemnify Buyer from any and all damages and costs as finally determined by a court of competent jurisdiction in any suit for infringement of any U.S. patent (or European patent for Products that Hach sells to Buyer for end use in a member state of the E.U.) that has issued as of the delivery date, solely by reason of the sale or normal use of any Products sold to Buyer hereunder and from reasonable expenses incurred by Buyer in defense of such suit if Hach does not undertake the defense thereof, provided that Buyer promptly notifies Hach of such suit and offers Hach either (i) full and exclusive control of the defense of such suit when Products of Hach only are involved, or (ii) the right to participate in the defense of such suit when products other than those of Hach are also involved. Hach's warranty as to use patents only applies to infringement arising solely out of the inherent operation of the Products according to their applications as envisioned by Hach's specifications. In case the Products are in such suit held to constitute infringement and the use of the Products is enjoined, Hach will, at its own expense and at its option, either procure for Buyer the right to continue using such Products or replace them with non-infringing products, or modify them so they become non-infringing, or remove the Products and refund the purchase price (prorated for depreciation) and the transportation costs thereof. The foregoing states the entire liability of Hach for patent infringement by the Products. Further, to the same extent as set forth in Hach's above obligation to Buyer, Buyer agrees to defend, indemnify and hold harmless Hach for patent infringement related to (x) any goods manufactured to the Buyer's design, (y) services provided in accordance with the Buyer's instructions, or (z) Hach's Products when used in combination with any other devices, parts or software not provided by Hach hereunder.

10. TRADEMARKS AND OTHER LABELS: Buyer agrees not to remove or alter any indicia of manufacturing origin or patent numbers contained on or within the Products, including without limitation the serial numbers or trademarks on nameplates or cast, molded or machined components.

11. SOFTWARE AND DATA. All licenses to Hach's separately-provided software products are subject to the separate software license agreement(s) accompanying the software media and/or included as an Appendix to these Terms & Conditions of Sale. Except to the extent such express licenses conflict with the remainder of this paragraph, the following also applies relative to Hach's software: Hach grants Buyer only a personal, non-exclusive license to access and use the software provided by Hach with Products purchased hereunder solely as necessary for Buyer to enjoy the benefit of the Products. A portion of the software may contain or consist of open source software, which Buyer may use under the terms and conditions of the specific license under which the open source software is distributed. Buyer agrees that it will be bound by all such license agreements. Title to software remains with the applicable licensor(s). In connection with Buyer's use of Products, Hach may obtain, receive, or collect data or information, including data produced by the Products. In such cases, Buyer grants Hach a non-exclusive, worldwide, royalty-free, perpetual, non-revocable license to use, compile, distribute, display, store, process, reproduce, or create derivative works of such data, or to aggregate such data for use in an anonymous manner, solely to facilitate marketing, sales and R&D activities of Hach and its affiliates.

12. PROPRIETARY INFORMATION; PRIVACY: "Proprietary Information" means any information, technical data or know-how in whatever form, whether documented, contained in machine readable or physical components, mask works or artwork, or otherwise, which Hach considers proprietary, including but not limited to service and maintenance manuals. Buyer and its customers, employees and agents will keep confidential all such Proprietary Information obtained directly or indirectly from Hach and will not transfer or disclose it without Hach's prior written consent, or use it for the manufacture, procurement, servicing or calibration of Products or any similar products, or cause such products to be manufactured, serviced or calibrated by or procured from any other source, or reproduce or otherwise appropriate it. All such Proprietary Information remains Hach's property. No right or license is granted to Buyer or its customers, employees or agents, expressly or by implication, with respect to the Proprietary Information or any patent right or other proprietary right of Hach, except for the limited use licenses implied by law. Hach will manage Customer's information and personal data in accordance with its Privacy Policy, located at <http://www.hach.com/privacypolicy>.

13. **CHANGES AND ADDITIONAL CHARGES:** Hach reserves the right to make design changes or improvements to any products of the same general class as Products being delivered hereunder without liability or obligation to incorporate such changes or improvements to Products ordered by Buyer unless agreed upon in writing before the Products' delivery date. Services which must be performed as a result of any of the following conditions are subject to additional charges for labor, travel and parts: (a) equipment alterations not authorized in writing by Hach; (b) damage resulting from improper use or handling, accident, neglect, power surge, or operation in an environment or manner in which the instrument is not designed to operate or is not in accordance with Hach's operating manuals; (c) the use of parts or accessories not provided by Hach; (d) damage resulting from acts of war, terrorism or nature; (e) services outside standard business hours; (f) site prework not complete per proposal; or (g) any repairs required to ensure equipment meets manufacturer's specifications upon activation of a service agreement.

14. **SITE ACCESS / PREPARATION / WORKER SAFETY / ENVIRONMENTAL COMPLIANCE:** In connection with services provided by Hach, Buyer agrees to permit prompt access to equipment. Buyer assumes full responsibility to back-up or otherwise protect its data against loss, damage or destruction before services are performed. Buyer is the operator and in full control of its premises, including those areas where Hach employees or contractors are performing service, repair and maintenance activities. Buyer will ensure that all necessary measures are taken for safety and security of working conditions, sites and installations during the performance of services. Buyer is the generator of any resulting wastes, including without limitation hazardous wastes. Buyer is solely responsible to arrange for the disposal of any wastes at its own expense. Buyer will, at its own expense, provide Hach employees and contractors working on Buyer's premises with all information and training required under applicable safety compliance regulations and Buyer's policies. If the instrument to be serviced is in a Confined Space, as that term is defined under OSHA regulations, Buyer is solely responsible to make it available to be serviced in an unconfined space. Hach service technicians will not work in Confined Spaces. In the event that a Buyer requires Hach employees or contractors to attend safety or compliance training programs provided by Buyer, Buyer will pay Hach the standard hourly rate and expense reimbursement for such training attended. The attendance at or completion of such training does not create or expand any warranty or obligation of Hach and does not serve to alter, amend, limit or supersede any part of this Contract.

15. **LIMITATIONS ON USE:** Buyer will not use any Products for any purpose other than those identified in Hach's catalogs and literature as intended uses. Unless Hach has advised the Buyer in writing, in no event will Buyer use any Products in drugs, food additives, food or cosmetics, or medical applications for humans or animals. In no event will Buyer use in any application any Product that requires FDA 510(k) clearance unless and only to the extent the Product has such clearance. Buyer will not sell, transfer, export or re-export any Hach Products or technology for use in activities which involve the design, development, production, use or stockpiling of nuclear, chemical or biological weapons or missiles, nor use Hach Products or technology in any facility which engages in activities relating to such weapons. Unless the "ship-to" address is in California, U.S.A., the Products are not intended for sale in California and may lack markings required by California Proposition 65; accordingly, unless Buyer has ordered Products specifying a California ship-to address, Buyer will not sell or deliver any Hach Products for use in California. Any warranty granted by Hach is void if any goods covered by such warranty are used for any purpose not permitted hereunder.

16. **EXPORT AND IMPORT LICENSES AND COMPLIANCE WITH LAWS:** Unless otherwise specified in this Contract, Buyer is responsible for obtaining any required export or import licenses. Buyer will comply with all laws and regulations applicable to the installation or use of all Products, including applicable import and export control laws and regulations of the U.S., E.U. and any other country having proper jurisdiction, and will obtain all necessary export licenses in connection with any subsequent export, re-export, transfer and use of all Products and technology delivered hereunder. Buyer will comply with all local, national, and other laws of all jurisdictions globally relating to anti-corruption, bribery, extortion, kickbacks, or similar matters which are applicable to Buyer's business activities in connection with this Contract, including but not limited to the U.S. Foreign Corrupt Practices Act of 1977, as amended (the "FCPA"). Buyer agrees that no payment of money or provision of anything of value will be offered, promised, paid or transferred, directly or indirectly, by any person or entity, to any government official, government employee, or employee of any company owned in part by a government, political party, political party official, or candidate for any government office or political party office to induce such organizations or persons to use their authority or influence to obtain or retain an improper business advantage for Buyer or for Hach, or which otherwise constitute or have the purpose or effect of public or commercial bribery, acceptance of or acquiescence in extortion, kickbacks or other unlawful or improper means of obtaining business or any improper advantage, with respect to any of Buyer's activities related to this Contract. Hach asks Buyer to "Speak Up!" if aware of any violation of law, regulation or our Standards of Conduct ("SOC") in relation to this Contract. See <http://danaher.com/integrity-and-compliance> and www.danaherintegrity.com for a copy of the SOC and for access to our Helpline portal.

17. **RELATIONSHIP OF PARTIES:** Buyer is not an agent or representative of Hach and will not present itself as such under any circumstances unless and to the extent it has been formally screened by Hach's compliance department and received a separate

duly-authorized letter from Hach setting forth the scope and limitations of such authorization.

18. **FORCE MAJEURE:** Hach is excused from performance of its obligations under this Contract to the extent caused by acts or omissions that are beyond its control of, including but not limited to Government embargoes, blockages, seizures or freeze of assets, delays or refusals to grant an export or import license or the suspension or revocation thereof, or any other acts of any Government; fires, floods, severe weather conditions, or any other acts of God; quarantines; labor strikes or lockouts; riots; strife; insurrections; civil disobedience or acts of criminals or terrorists; war; material shortages or delays in deliveries to Hach by third parties. In the event of the existence of any force majeure circumstances, the period of time for delivery, payment terms and payments under any letters of credit will be extended for a period of time equal to the period of delay. If the force majeure circumstances extend for six months, Hach may, at its option, terminate this Contract without penalty and without being deemed in default or in breach thereof.

19. **NON ASSIGNMENT AND WAIVER:** Buyer will not transfer or assign this Contract or any rights or interests hereunder without Hach's prior written consent. Failure of either party to insist upon strict performance of any provision of this Contract, or to exercise any right or privilege contained herein, or the waiver of any breach of the terms or conditions of this Contract will not be construed as thereafter waiving any such terms, conditions, rights, or privileges, and the same will continue and remain in force and effect as if no waiver had occurred.

20. **FUNDS TRANSFERS (PAYMENTS):** Buyer and Hach both recognize that there is a risk of banking fraud when individuals impersonating a business demand payment under new banking or mailing instructions. To avoid this risk, Buyer must verbally confirm any new or changed bank transfer or mailing instructions by calling Hach at +1-970-663-1377 and speaking with Hach's Credit Manager before mailing or transferring any monies using the new instructions. Both parties agree that they will not institute mailing or bank transfer instruction changes and require immediate payment under the new instructions but will instead provide a ten (10) day grace period to verify any payment instruction changes before any new or outstanding payments are due using the new instructions.

21. **LIMITATION OF LIABILITY:** None of the Hach Indemnified Parties will be liable to Buyer under any circumstances for any special, treble, incidental or consequential damages, including without limitation, damage to or loss of property other than for the Products purchased hereunder; damages incurred in installation, repair or replacement; lost profits, revenue or opportunity; loss of use; losses resulting from or related to downtime of the products or inaccurate measurements or reporting; the cost of substitute products; or claims of Buyer's customers for such damages, howsoever caused, and whether based on warranty, contract, and/or tort (including negligence, strict liability or otherwise). The total liability of the Hach Indemnified Parties arising out of the performance or nonperformance hereunder or Hach's obligations in connection with the design, manufacture, sale, delivery, and/or use of Products will in no circumstance exceed in the aggregate a sum equal to twice the amount actually paid to Hach for Products delivered hereunder.

22. **APPLICABLE LAW AND DISPUTE RESOLUTION:** The construction, interpretation and performance hereof and all transactions hereunder shall be governed by the laws of the State of Colorado, without regard to its principles or laws regarding conflicts of laws. If any provision of this Contract violates any Federal, State or local statutes or regulations of any countries having jurisdiction of this transaction, or is illegal for any reason, said provision shall be self-deleting without affecting the validity of the remaining provisions. Unless otherwise specifically agreed upon in writing between Hach and Buyer, any dispute relating to this Contract which is not resolved by the parties shall be adjudicated in order of preference by a court of competent jurisdiction (i) in the State of Colorado, U.S.A. if Buyer has minimum contacts with Colorado and the U.S., (ii) elsewhere in the U.S. if Buyer has minimum contacts with the U.S. but not Colorado, or (iii) in a neutral location if Buyer does not have minimum contacts with the United States.

23. **ENTIRE AGREEMENT & MODIFICATION:** These Terms & Conditions of Sale constitute the entire agreement between the parties and supersede any prior agreements or representations, whether oral or written. No change to or modification of these Terms & Conditions shall be binding upon Hach unless in a written instrument specifically referencing that it is amending these Terms & Conditions of Sale and signed by an authorized representative of Hach. Hach rejects any additional or inconsistent Terms & Conditions of Sale offered by Buyer at any time, whether or not such terms or conditions materially alter the Terms & Conditions herein and irrespective of Hach's acceptance of Buyer's order for the described goods and services.

24. **APPENDICES:** If checked, the following Appendices are attached hereto and incorporated by reference into these Terms & Conditions of Sale:

CLAROS SOFTWARE AS A SERVICE SUBSCRIPTION AGREEMENT

* * *

TERMS AND CONDITIONS OF SALE FOR HACH® PRODUCTS
v. 2019-12-09

**Jim Nash, Oakland County Water Resources Commissioner
Dequindre Pump Station Rehabilitation
George W. Kuhn Drain Drainage District
Oakland County, Michigan**

Regular Construction Estimate No. 10

May 1, 2020 to May 31, 2020

Department No.:	6010101	Account No.:	730373
Fund No.:	58520	Program No.:	149667
Project No.:	1-2190	Activity:	FAC

Contractor:
Weiss Construction
4000 Renaissance Center, Suite 2170
Detroit, MI 48243

Date of Contract: May 14, 2019
Completion Date: August 30, 2020
Extended to: N/A

Original Contract Amount: \$5,845,000.00

Previous Change Orders: \$0.00
Numbers: (none)

Change Orders This Estimate: \$89,077.00
Numbers: Change Order #1

Total Net Change Orders: \$89,077.00

Adjusted Contract Amount: \$5,934,077.00

Sub-Total To Date: \$4,614,883.55

Less Deductions: \$0.00

Gross Estimate: (Work in Place) 77.77% \$4,614,883.55

Less Amount Reserved: (10% of 1/2 Adjusted Contract Amount) \$296,703.85

Total Amount Allowed To Date: \$4,318,179.70

Less Previous Estimates: \$4,130,699.15

Net Payment Request To Be Paid To Contractor: \$187,480.55

Reserve Payment to Contractor \$0.00

Balance of Contract To Date \$ 1,319,193.45 Accounting Auditor: *jlb*

Amount To Be Reserved (From Above) \$296,703.85

Less Previous Transfers To Reserve: \$292,250.00

Amount of Current Transfer: \$4,453.85

Prepared by: 
Craig Tiell - Project Engineer

Date: 6/10/2020

Recommended by: _____
John Arvai, P.E. - Consulting Engineer

Date: _____

Approved by: _____
Gary Nigro, P.E. - Chief Engineer, Construction Management

Date: _____

Approved by: _____
Sid Lockhart, P.E. - Special Project Manager, Construction Management

Date: _____

Regular Construction Estimate No. 10

Approved By Board On: _____

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the GEORGE W. KUHN DRAIN

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting *S. Phelps*

DATE: June 23, 2020

SUBJECT: Request for Board approval of payment of the following invoices:

Payable To	Ref No.	For	Amount
Environmental Consulting & Tech	TBP	Invoice # 202002 -Contracted Services - 05/01/20	\$ 11,665.68
OHM	TBP	Invoice # 213992 - Professional Services -04/25/20	837.09
OHM	TBP	Invoice # 214784 - Contracted Services - 5/30/20	940.00
Dickinson Wright, PLLC	TBP	Invoice # 1475156 - Legal Services - 04/30/2020	1,988.94
Dickinson Wright, PLLC	TBP	Invoice # 1475154 - Legal Services - 04/30/2020	2,017.76
Dickinson Wright, PLLC	TBP	Invoice # 1475151 - Legal Services - 04/30/2020	2,035.32
Dickinson Wright, PLLC	TBP	Invoice # 1475150 - Legal Services - 04/30/2020	2,096.62
Dickinson Wright, PLLC	TBP	Invoice # 1475149 - Legal Services - 04/30/2020	2,254.46
Dickinson Wright, PLLC	TBP	Invoice # 1475147 - Legal Services - 04/30/2020	2,900.88
Dickinson Wright, PLLC	TBP	Invoice # 1475146 - Legal Services - 04/30/2020	6,027.97
Dickinson Wright, PLLC	TBP	Invoice # 1475148 - Legal Services - 04/30/2020	2,117.45
Dickinson Wright, PLLC	TBP	Invoice # 1475157 - Legal Services - 04/30/2020	1,960.87
Dickinson Wright, PLLC	TBP	Invoice # 1475153 - Legal Services - 04/30/2020	2,001.12
Dickinson Wright, PLLC	TBP	Invoice # 1475170 - Legal Services - 04/30/2020	13,371.15
Dickinson Wright, PLLC	TBP	Invoice # 1475144 - Legal Services - 04/30/2020	748.53
Dickinson Wright, PLLC	TBP	Invoice # 1475158- Legal Services - 04/30/2020	1,055.77
Dickinson Wright, PLLC	TBP	Invoice # 1475159 - Legal Services - 04/30/2020	455.00
Dickinson Wright, PLLC	TBP	Invoice # 1482410 - Legal Services - 05/31/20	2,205.00
Dickinson Wright, PLLC	TBP	Invoice # 1482415 - Legal Services - 05/31/20	1,953.94
Dickinson Wright, PLLC	TBP	Invoice # 1482399 - Legal Services - 05/31/20	1,912.76
Dickinson Wright, PLLC	TBP	Invoice # 1482397 - Legal Services - 05/31/20	1,895.32
Dickinson Wright, PLLC	TBP	Invoice # 1482394 - Legal Services - 05/31/20	1,851.62
Dickinson Wright, PLLC	TBP	Invoice # 1482393 - Legal Services - 05/31/20	1,974.46
Dickinson Wright, PLLC	TBP	Invoice # 1482391 - Legal Services - 05/31/20	2,690.88
Dickinson Wright, PLLC	TBP	Invoice # 1482390 - Legal Services - 05/31/20	5,852.97
Dickinson Wright, PLLC	TBP	Invoice # 1482402 - Legal Services - 05/31/20	1,890.87
Dickinson Wright, PLLC	TBP	Invoice # 1482398 - Legal Services - 05/31/20	1,931.12
Dickinson Wright, PLLC	TBP	Invoice # 1482392 - Legal Services - 05/31/20	1,802.45
Dickinson Wright, PLLC	TBP	Invoice # 1482406 - Legal Services - 05/31/20	7.77
Dickinson Wright, PLLC	TBP	Invoice # 1482389 - Legal Services - 05/31/20	748.53
Subtotal			\$ 81,192.30
Total			\$ 81,192.30