

**NOTICE OF MEETINGS**  
**DRAINAGE BOARD FOR THE FOLLOWING DRAINS:**

1. Drainage District Policy
2. Acacia Park CSO Drain
3. Birmingham CSO Drain
4. Bloomfield Village CSO Drain
5. Clinton River Water Resource Recovery Facility
6. George W. Kuhn Drain
7. Evergreen- Farmington Sanitary Drain
8. Owens Relief Drain
9. Pebble Creek Drain

NOTICE IS HEREBY GIVEN THAT MEETINGS OF THE DRAINAGE BOARD FOR THE ABOVE-MENTIONED DRAINS WILL COMMENCE IN THE OAKLAND COUNTY PUBLIC WORKS BUILDING, ONE PUBLIC WORKS DRIVE, WATERFORD, MICHIGAN, AND VIA **MICROSOFT TEAMS** AT 2:00 P.M., ON **TUESDAY, JUNE 28, 2022**, TO CONDUCT NECESSARY AND APPROPRIATE BUSINESS OF THE DRAIN BOARDS. THOSE THAT WISH TO PARTICIPATE REMOTELY MAY FOLLOW THE INSTRUCTIONS ATTACHED TO THIS NOTICE. ALL BOARD MEMBERS WILL BE PARTICIPATING IN-PERSON.

DURING THE 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 STEPHANIE LAJDZIAK AT [LAJDZIAKS@OAKGOV.COM](mailto:LAJDZIAKS@OAKGOV.COM). PERSONS WITH DISABILITIES THAT NEED ASSISTANCE PARTICIPATING IN THE MEETING SHOULD CONTACT STEPHANIE LAJDZIAK AT [LAJDZIAKS@OAKGOV.COM](mailto:LAJDZIAKS@OAKGOV.COM).

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

Posted by: May 23, 2022

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# Microsoft Teams meeting

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## **1. Drainage District Policy**

## **AGENDA**

### **DRAINAGE BOARD FOR POLICY MATTERS**

June 28, 2022

1. Call meeting to order
2. Approve minutes of meeting of January 25, 2022
3. Public Comments
4. Proclamation for Lynn C. Sonkiss
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD  
FOR POLICY MATTERS**

January 25, 2022

A meeting of the Drainage Board for Policy Matters 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 25<sup>th</sup> of January 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Gwen Markham, 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 November 16, 2021, 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.

Sal Saputo (Meadowbrook Insurance Group) provided an update regarding property insurance options for the Drainage Districts; it was recommended that the Board renew insurance coverage with Chubb. Discussion ensued regarding policy and carrier options. It was moved by Markham, supported by Nash, to approve the proposal as authored and for the Secretary to sign and approve the invoices for payment.

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.



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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 for Policy Matters, Oakland County, Michigan, held on the 25<sup>th</sup> day of January 2022, 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 Policy Matters.



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Jim Nash, Chairperson

Dated: January 25, 2022

Oakland County, Michigan

# Proclamation

- WHEREAS** Lynn C. Sonkiss, Fiscal Services Officer extraordinaire, who has decided to end her long and glorious career as an invaluable member of the Oakland County team; and
- WHEREAS** In recognition of the fact that Lynn's considerable contributions to the fiscal health of Oakland County cannot be overstated; and
- WHEREAS** Many of the financial accolades bestowed upon Oakland County, including top honors for 30 consecutive years from the Government Finance Officers Association of the United States and Canada for fiscal reporting are directly attributable to Lynn; and
- WHEREAS** Having led the team that had a three-decades lock on the prestigious Certificate of Achievement for Excellence in Financial Reporting from that august multi-national association, Lynn also has demonstratively enriched the lives of Oakland County residents by her unwavering devotion to the people she serves; and
- WHEREAS** For more than three decades, each Oakland County administration has realized the great honor they experienced by having served with such an exceptionally talented and dedicated public servant as Lynn; and
- WHEREAS** Lynn began her illustrious career in public service with the organization I currently lead; and
- WHEREAS** In her capacity as a leader of the accounting team focused on providing excellent service and maintaining the fiscal health of hundreds of Oakland County drainage districts, Lynn quickly distinguished herself by flawlessly navigating the complex provisions of the Michigan Drain Code.
- NOW THEREFORE BE IT RESOLVED** that it is with great pride that I proclaim, upon unanimous consensus of this board, a future Oakland County Chapter 20 Drain to be established, The Lynn C. Sonkiss Drain, an honor and recognition that shall remain for all time.

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Oakland County Water Resources Commissioner Jim Nash  
June 28, 2022

## **2. Acacia Park CSO**



## **AGENDA**

### **DRAINAGE BOARD FOR THE ACACIA PARK CSO DRAIN**

June 28, 2022

1. Call meeting to order
2. Approve minutes of meeting of April 26, 2022
3. Public Comments
4. Present Memorandum from Leslie Maes, Operations Engineer, dated June 28, 2022, requesting the Board approve the Drainage District Retention Treatment Basin major maintenance and capital improvement projects for the not-to-exceed amount of \$245,000
5. Present Memorandum from George Nichols, P.E., Civil Engineer III, dated June 28, 2022, requesting the Board retain services from Hubbell, Roth, and Clark to proceed with establishing a 5-year Capital Improvement Plan for a not-to-exceed amount of \$15,700 and authorize the Chairperson to sign the proposal
6. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$11,169.20
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**

April 26, 2022

A meeting of the Drainage Board for the Acacia Park CSO 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 26<sup>th</sup> day of April 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

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

David Woodward, Chairperson of the Oakland County Board of Commissioners

ABSENT: None.

Minutes of the meeting held March 22, 2022, were presented for consideration. It was moved by Markham, 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 Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$1,042,300 for the Acacia Park CSO Drain (as attached) were presented. It was moved by Markham, supported by Woodward, to adopt the Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$1,042,300 as presented.

ADOPTED: Yeas - 3  
Nays - 0

A request for reimbursement of the Evergreen Farmington Fund in the amount of \$99,808.74 (as attached) was presented. It was moved by Markham, supported by Woodward, to reimburse the Evergreen Farmington Fund in the amount of \$99,808.74.

ADOPTED: Yeas - 3  
Nays - 0

A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$32,115.29 (as attached) was presented. It was moved by

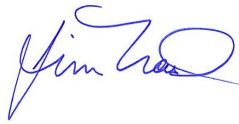
Markham, supported by Woodward, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$32,115.29.

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.



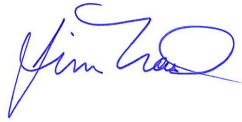
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Jim Nash, Chairperson

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 for the Acacia Park CSO Drain, Oakland County, Michigan, held on the 26<sup>th</sup> day of April 2022, 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.



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Jim Nash, Chairperson

Dated: April 26, 2022

**OAKLAND COUNTY  
WATER RESOURCES COMMISSIONER**

**MEMORANDUM**

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

**FROM:** Lesli Maes, Operations Engineer

**SUBJECT:** Acacia Park RTB Projects for Approval

**DATE:** June 28, 2022

Recommendations for rehabilitation or replacement of assets within the Acacia Park CSO Drainage District are continually being identified, evaluated and planned for by WRC staff including the asset management group, staff engineers and operations supervisors.

Below are major maintenance and capital improvement projects for the Acacia Park Retention Treatment Basin Facility that are proposed at this time.

**ACACIA PARK RTB FY2022 Project Planning #82725**

<b>Project Name</b>	<b>Major Maintenance or Capital Improvement</b>	<b>Cost Estimate</b>
Inspect & Rehab four backwater gates	MM	\$ 50,000
Rehab five 18" dewatering plug valves	CIP	\$ 175,000
Replace Uninterruptible Power Supply	CIP	\$ 20,000
<b>Total:</b>		<b>\$ 245,000</b>

This work has been planned and budgeted for in the Acacia Park CSO RTB Reserves.

**Board Action Requested:**

**Approve the Acacia Park Retention Treatment Basin major maintenance and capital improvement projects listed above for the not to exceed amount of \$245,000.**

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

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

**FROM:** George P. Nichols, P.E., Civil Engineer III *GPN*

**SUBJECT:** Acacia Park CSO Drain 5-Year Capital Improvement Plan  
Fund #58510

**DATE:** June 28, 2022

Recommendations and discussions for establishing a 5-Year Capital Improvement Plan (CIP) within the Acacia Park CSO Drain have been ongoing with WRC staff including the asset management group, and staff engineers. Based on these discussions, it was recommended that an engineering consultant be hired to assist with creating and operating a capital improvement plan.

Discussions with Hubbell, Roth and Clark (HRC) took place as they have assisted our office with past CIP programs and are familiar with the operations and requirements of WRC. As outlined in their attached proposal letter (dated June 13, 2022), their scope of services include:

1. Kickoff Meeting and Receive Data and Media
2. Review of Inspection Data and Update of Asset Database
3. Coordination of Other Infrastructure Projects
4. Develop a 1-Year CIP Projects
5. Develop 2 to 5 Year CIP Projects
6. Report and Deliverables

Upon the asset management group review of HRC's proposal, we feel confident that they will provide us with the needed services to establish the required CIP program. We also feel that their cost for services is reasonable for the required work needed.

In order to proceed with this project, authorization of \$15,700 is needed from the Drainage Board. This amount is part of the \$25,000 that was already been included within the Major Maintenance Expense Budget for FY2022. This work is for the horizontal collection system.

**Requested Action:**

**It is recommended that the Board retain the services of Hubbell, Roth and Clark to proceed with establishing a 5-year Capital Improvement Plan for the Acacia Park CSO Drain for the not to exceed amount of \$15,700, and to authorize the Chairperson to sign the proposal on behalf of the Drainage Board.**

horizontal system/ collection system



June 13, 2022

Oakland County Water Resources Commissioner  
One Public Works Drive  
Waterford, Michigan 48328

Attn: Mr. George Nichols, P.E.

Re: Acacia Park CSO Drain Combined Sewers  
Proposal for Engineering Services, 5-Year Capital Improvement Plan

HRC Project No. 20220488

Dear Mr. Nichols:

As requested, HRC is pleased to provide this proposal for engineering assistance related to the development of a 5-year Capital Improvement Plan for portions of the combined sewer system within the Acacia Park CSO Drain. We would propose that these services be provided under the terms and conditions of our existing as-needed Engineering Services Contract.

### **BACKGROUND AND PROJECT UNDERSTANDING**

The office of the Oakland County Water Resources Commissioner (OCWRC) owns, operates and maintains the Acacia Park CSO Drain. The Drain system includes a large Retention Treatment Basin, as well as the sewerage collection system. The collection system only is the focus of this project and includes the sewers, manholes, inlets, and catch basins that collect combined and sanitary sewage and stormwater from the service area and convey it to the RTB and/or sanitary interceptors.

In approximately 2015, OCWRC received a Stormwater, Asset Management, and Wastewater (SAW) grant to prepare an Asset Management Plan (AMP) for the system. As part of that grant, OCWRC completed significant amounts of sewer televising and manhole inspections to determine the condition of the system. We understand some repairs and rehabilitation have already been completed based on the evaluations made during those inspections.

We understand that OCWRC would like assistance in reviewing the AMP and any additional CCTV sewer inspection data and/or manhole inspection data that may have been collected since the grant to identify any remaining projects for improvements to the collection system sewer pipes and manholes with a focus on the next five years. We also understand the pump station and RTB are being evaluated separately.

The identification and prioritization of recommended rehabilitation and replacement projects will include the following considerations:

- Addressing assets with the overall highest Business Risk Evaluation (BRE) using OCWRC's infrastructure optimization software, which will provide BRE scores using your "Common to All" AMP methodology.
- Coordinating any recommended projects with other infrastructure projects, including road projects that are planned in the member communities, the Road Commission for Oakland County and/or the Michigan Department of Transportation. Other potential infrastructure projects to be considered include the any drinking water system improvements and residential lead service line abatement.

We understand OCWRC staff has performed basic Quality Control and Quality Assurance (QA/QC) on the sewer and manhole inspections. In some cases, OCWRC staff may have also reviewed some of the sewer inspection data and may have provided some recommendations to address the sewers in the worst condition (NASSCO 4 or 5 defects). However, it is our understanding that the OCWRC would like to take a more holistic approach to this review and ensure that projects reflect the additional factors listed above and be coordinated in a systemic manner. The recommendations will identify the areas for repairs based on the currently available budget, and also determine if additional budget may be recommended for future years in order to have the system meet the required level of service.

As discussed, OCWRC will provide database exports (Excel format) of the sewer and manhole assets to be reviewed with key attributes for each asset (“Gravity Main Events” and “Manhole Events” spreadsheets.) HRC will review each sewer asset and respond with one or more of the following recommendations: Inspect, Trenchless, Excavating Point Repair, Grouting, Full Liner, Full Replacement, and Review Video. Similarly, for the manhole database, we understand the export will include assets flagged as “needs repair” by OCWRC staff, and HRC will review each sewer asset and respond with one or more of the following recommendations: Inspect, Grout, Rehab, Lining, Replacement, and Review Inspection. A database of currently proposed projects in the system will also be provided (“Projects List Export for 5 Year Planning” spreadsheet) and updated by HRC to reflect the 5-Year CIP recommendations.

In addition, because HRC assisted OCWRC with the SAW grant, we will review the recommendations made at that time against work already completed to identify any potential recommendations not yet completed.

## **SCOPE OF SERVICES**

### **Preliminary Engineering (Study Phase)**

#### *Task 1 – Kickoff Meeting and Receive Data*

A kickoff meeting will be held with OCWRC and HRC staff to confirm the scope, budget and schedule. At that time, a list of needed items will be prepared. HRC will review the database exports and other data and media provided by OCWRC to ensure all required data is received in an accessible format.

#### *Task 2 – Review of Inspection Data and Update of Asset Database*

While it is our understanding that OCWRC may have performed only limited inspections since the SAW Grant, we have budgeted time to review any new data that was collected. For the new data sets, we understand OCWRC has already performed basic QA/QC of the sewer televising and manhole inspection data, but additional review is necessary to confirm individual defect severity and to make recommendations for repair, rehabilitation and/or replacement of the assets for inclusion in the CIP. We understand OCWRC will provide the condition, risk and BRE scores for all pipes in potential project areas for assistance in creating proposed projects. **We have sufficient budget included for review of up to 50 sewer CCTV segments and/or manhole inspections.**



#### *Task 3 – Coordination of Other Infrastructure Projects*

HRC will use the information provided to determine recommendations for individual assets as well as areas of the system where repair, rehabilitation and/or replacement are recommended. As discussed in the background section, OCWRC is interested in doing a more comprehensive program, rather just addressing the worst condition pipe. HRC will review the scores of pipes and manholes in the vicinity of proposed projects, both condition and risk, to determine where it would be more cost effective to include additional assets in a proposed project to prevent the need for coming back to do work in a given area again in the near future. HRC will also use internal resources to identify other types of infrastructure projects that are currently proposed in the study area. This will include, at a minimum, road projects (member community, RCOC and MDOT), water main and sewer projects, and lead water service line replacements.

Once this is complete, HRC staff will meet with OCWRC staff to confirm the areas that may be impacted by other construction and align any sewer projects with the other proposed projects. By performing this coordination, a “dig once” approach can be used to reduce the cost of and need to restore areas impacted by construction. It also reduces the overall impact of construction disruption on the residents and community.

#### *Task 4 – Develop a 1-Year CIP Projects*

Any recommendations requiring immediate implementation will be included in the first year (current year) of the 5-Year CIP. Any proposed projects will be reported back to OCWRC by updating the existing project database for the system.

#### *Task 5 – Develop 2 to 5 Year CIP Projects*

This task will continue from the previous task by identifying and prioritizing projects for inclusion in years 2 to 5 of the CIP. The work will also review and make recommendations for future budgets beyond the first five years, based on extrapolating the condition of the assets reviewed to other parts of the system. The proposed projects will be reported back to OCWRC by updating the existing project database for the system.

#### *Task 6 – Report and Deliverables*

The deliverables will include a brief report with summarizing the scope of work, type of evaluations performed, other infrastructure projects reviewed, and recommendations for projects proposed to be implemented over the next 5 years with prioritization and estimated construction costs. The report will also review if the current budgets are sufficient to work toward restoring the system to the required level of service. Additional deliverables include updating the database of assets provided by OCWRC with the individual asset recommendations, providing a complete list of assets included in each of the projects in the 5-year CIP, and updating OCWRC’s existing project database for the system with the recommended projects for creation of OCWRC’s internal “project cut sheets.”

**ANTICIPATED PROJECT SCHEDULE**

We understand that the OCWRC would like to produce a 5 Year CIP document by approximately the fall of 2022, we anticipate the following schedule to finalize this work:

- Schedule kickoff meeting and begin review of available data – within two weeks of approval.
- Complete 5 Year CIP projects deliverable, September 2022.

**FEES FOR SERVICES**

**Our costs to complete this work will not exceed \$15,700.00** per the attached breakdown of hours and dollars. The fee will be billed monthly on a time and material basis under the terms and conditions of our engineering services agreement with OCWRC. We appreciate the opportunity to work with OCWRC on this important project. If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,  
HUBBELL, ROTH & CLARK, INC.



Daniel Mitchell, P.E.  
President.



Karyn Stickel, P.E.  
Senior Associate

/sld  
Attachment  
pc: HRC; Sally Duffy, File

Accepted By:

Signature: \_\_\_\_\_

Written Name: \_\_\_\_\_

Title: \_\_\_\_\_

Dated: \_\_\_\_\_

**OAKLAND COUNTY WATER RESOURCES COMMISSIONER  
ACACIA CSO DRAIN SEWAGE COLLECTION SYSTEM  
SEWER AND MANHOLE REHABILITATION PROGRAM**

**TABLE 1  
ESTIMATED HOURS AND FEES**

June 13, 2022

HRC Job No. 20220488

Task Description	Associate/ Managing Engineer	Senior Project Engineer	Grad Engineer	Designer (CADD/GIS)	Total Hours	Estimated Fees (Rounded)
	\$ 170	\$ 165	\$ 125	\$ 140		
<b>Preliminary Engineering (Study Phase)</b>						
1 Kickoff Meeting and Receiving Data and Media	2	4	10		16	\$ 2,250
2 Review of Inspection Data and Update of Asset Database*	2	4	10		16	\$ 2,250
3 Coordination of Other Infrastructure Projects	2	4	10	4	20	\$ 2,810
4 Develop 1 Year CIP Projects for CWSRF Project Plan	2	4	10	4	20	\$ 2,810
5 Develop 2-5 Year CIP Projects	2	4	10	4	20	\$ 2,810
6 Report and Deliverables	2	4	10	4	20	\$ 2,810
<b>PROJECT TOTALS</b>	<b>12</b>	<b>24</b>	<b>60</b>	<b>16</b>	<b>112</b>	<b>\$ 15,700</b>

\* About 6 pipes/manholes per hour by grad engineer for a total of 50 pipe/MH segments

**ESTIMATED FEE SUMMARY**

PERSONNEL	HOURS	RATE	TOTAL
Associate/Managing Engineer	12	\$ 170.00	\$ 2,040.00
Senior Project Engineer	24	\$ 165.00	\$ 3,960.00
Grad Engineer	60	\$ 125.00	\$ 7,500.00
Designer (CADD/GIS)	16	\$ 140.00	\$ 2,240.00

**TOTAL ESTIMATED HRC LABOR COST \$ 15,700.00**

**TOTAL SUBCONSULTANT FEES \$ -**

**TOTAL LUMP SUM NOT-TO-EXCEED \$ 15,700.00**

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

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

**DATE:** June 28, 2022

**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 22, 2022

G/L Date	Ref No.	Paid To	For	Amount
	TBP	ICS Integration Services LLC	Invoice # 2377 - Contracted Services	\$ 1,043.35
	TBP	ICS Integration Services LLC	Invoice # 2361 - Contracted Services	1,962.52
			<b>Total</b>	<b>\$ 3,005.87</b>
	TBP	ICS Integration Services LLC	Invoice # 2341 - Contracted Services	1,745.33
			<b>Project # 1-3467 Subtotal</b>	<b>\$ 1,745.33</b>
6/21/2022	V # SINV00109154	Hamlett Environmental Technologies	Invoice # 20221970 - Material and Supplies	\$ 6,418.00
			<b>Project # 1-3463 Subtotal</b>	<b>\$ 6,418.00</b>
			<b>Grand Total</b>	<b>\$ 11,169.20</b>

### **3. Birmingham CSO**

## **AGENDA**

### **DRAINAGE BOARD FOR THE BIRMINGHAM CSO DRAIN**

June 28, 2022

1. Call meeting to order
2. Approve minutes of meeting of April 26, 2022
3. Public Comments
4. Present Memorandum from Lesli, Maes, Operations Engineer, dated June 28, 2022, requesting the Board approve transferring \$140,000 from the capital improvement reserve to the Birmingham Influent Flow Metering project and approve entering into contract with GWF Technologies for the not-to-exceed amount of \$102,000
5. Present Memorandum from George Nichols, P.E., Civil Engineer III, dated June 28, 2022, requesting the Board retain services from Hubbell, Roth, and Clark to proceed with establishing a 5-year Capital Improvement Plan for a not-to-exceed amount of \$15,700 and authorize the Chairperson to sign the proposal
6. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$100,587.88
7. Other business
8. Approve pro rata payment to Drainage Board members
9. Adjourn

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

April 26, 2022

A meeting of the Drainage Board for the Birmingham CSO 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 26<sup>th</sup> day of April 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

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

David Woodward, Chairperson of the Oakland County Board of Commissioners

ABSENT: None.

Minutes of the meeting held March 22, 2022, were presented for consideration. It was moved by Markham, 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 memorandum from Brian Coburn, Manager, dated April 26, 2022, requesting the Board to receive and file the RTB Capacity Use Credit Memorandum (as attached) for the second quarter FY2022 was presented for consideration. It was moved by Markham, supported by Woodward, to receive and file the Memorandum regarding the RTB Capacity Use Credit.

ADOPTED: Yeas - 3  
Nays - 0

A Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$1,018,020 for the Birmingham CSO Drain (as attached) were presented. It was moved by Markham, supported by Woodward, to adopt the Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$1,018,020 as presented.

ADOPTED: Yeas - 3  
Nays - 0

A request for reimbursement of the Evergreen Farmington Fund in the amount of \$103,216.35 (as attached) was presented. It was moved by Markham, supported by Woodward, to reimburse the Evergreen Farmington Fund in the amount of \$103,216.35

ADOPTED: Yeas - 3  
Nays - 0

A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$137,810.76 (as attached) was presented. It was moved by Markham, supported by Woodward, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$137,810.76

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.



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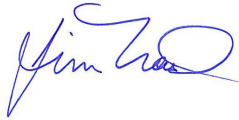
Jim Nash, Chairperson



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 for the Birmingham CSO Drain, Oakland County, Michigan, held on the 26<sup>th</sup> day of April 2022, 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.



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Jim Nash, Chairperson

Dated: April 26, 2022

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

**TO:** Jim Nash, Chairman  
Birmingham CSO Drainage Board

**FROM:** Lesli Maes, Operations Engineer

**SUBJECT:** Birmingham RTB Flow Meter Project Funding and Contract Approval

**DATE:** June 28, 2022

WRC staff began a project in 2020 to determine the optimal influent flow metering solution for the Birmingham CSO Retention Treatment Basin. Accurate flow rate data is critical to operations at the facility to properly pace the addition of the sodium hypochlorite, which provides disinfection treatment. The geometry of the influent channel makes for challenging metering conditions.

Staff has identified cross path, acoustic metering as best suited for the conditions to measure the influent flow. GWF Technologies worked closely with WRC to propose a metering solution for this application. Attached is the proposal from GWF Technologies for the supply, install and commissioning of an acoustic flow metering system for the Birmingham facility at a cost of \$102,000.

The initial study phase of the Birmingham influent meter project was opened with a budget of \$34,570. For the implementation phase of this project, we are seeking approval to transfer \$140,000 from the 2022 capital improvement reserves to the project budget. Funding was budgeted and planned for in the Birmingham CSO RTB Reserves.

**Board Action Requested:**

**Approve transferring \$140,000 from the capital improvement reserves to the Birmingham Influent Flow Metering project and approve entering a contract with GWF Technologies for the not to exceed amount of \$102,000 as proposed.**

GWF Technologies GmbH, Gewerbestraße 46f, 87600 Kaufbeuren

Oakland County WRC  
 One Public Works Dr, Bldg. 95, Waterford  
 Michigan, 48328  
 United States

Delivery address

Oakland County WRC  
 One Public Works Dr, Bldg. 95, Waterford  
 Michigan, 48328  
 United States

6/8/2022

**Quotation QU00000525-1**

Your reference	Lesli Maes	Our reference	Jürgen Skripalle
Your email		Our email	Juergen.Skripalle@gwf-technologies.de
Your telephone		Our telephone	+49 8341 95999 11
Your VAT No.		Our VAT No.	DE317269307
Reference	Birmingham CSO RTB	Customer No.	
Your Inquiry	Influent Flow Meter	Valid until	9/6/2022

**Influent Flowmeter Installation Details**

In the following, please find or quote for the supply and installation of an acoustic flowmeter system in a rectangular channel 12' wide and 18' high. The sensors will be installed in the place where the previous acoustic flowmeter system was mounted.

All cables inside the channel will be installed in new conduits (material stainless steel). From the shaft to the control building the cables will be routed through existing conduits. Each sensor is integrated in a mounting assembly and includes a waterproof connector (pressure-tight up to 1400 bar) for easy installation and maintenance. Client is responsible for waste disposal (dismantled components).

The installation is planned in 2 steps. First, the transducers incl. cables, conduits and the transmitter are installed. In a second step (if water is available) the system is put into operation. If water is available immediately after the installation of the components, the second travel is not necessary.

We would like to mention that GWF has develop a special procedure to check each transducer after installation without water. Here, the transducer is coupled via a special device, which is connected to the transmitter via an already laid cable, and the transmit and receive signal is measured. This allows us to test the entire installation, including the cable, even without water. An error in the installation, which would only be noticed with water during commissioning, can be excluded in this way.

Pos.	Description	Qty.	Unit	Unit price USD	Total price USD
1.00	<b>Kanalis</b> Art. 2Q80 V000000275	1	pcs	43,789.18 Discount 15.00 %	37,220.80
	Stationary time of flight flow meter for channels Channel width from 1 m to 20 m Bi-directional flow measurement in 1 to 10 paths Uncertainty flow measurement typically $\pm 2\%$ depending on number of installed paths				
	Power Supply: 100-240 V AC Communication: Standard + ext. 4G/3G router (AC) System type: Up to 10 paths, with extension housing Sensor type: Channel width 1-20 m (200 kHz, 8°) Sensor TD-200/8: 20x, with fixing frame Language documentation: English Labelling: Standard GWF				
	HS Code 9026.1021 Country of Origin DEU Delivery time 9 Weeks				
2.00	<b>Pressure sensor WLP36XWI, 70m cable, mounting plate</b> Art. F100.00054	1	pcs	2,764.41 Discount 15.00 %	2,349.75
	Measuring range: 0 - 10 m Uncertainty: $\pm 0.1\%$ FS Output: 4 to 20 mA Operating Temperature: -20 °C to +60 °C Power supply: 8 to 28 V DC Dimensions: L = 121 mm, D = 22 mm Material: stainless steel (DIN 1.4435, AISI 316L) incl. cable, PE (polyethylene) incl. atmospheric pressure compensation incl. mounting plate for drilling HS Code 9026.9000 Delivery time 9 Weeks				
3.00	<b>Junction box with GoreTex filter</b> Art. 2141.00013	1	pcs	176.08 Discount 15.00 %	149.67
	Junction box for pressure sensor with GoreTex filter Delivery time 9 Weeks				
4.00	<b>Connector Circular 3 Contacts</b> Art. 2141.00042	20	pcs	259.60 Discount 15.00 %	4,413.20
	Depth rating: 1400 bar Temperature rating: -4 °C to +60 °C Outside diameter: 35.5 mm Material: Neoprene Incl. two heat-shrink tubing kits HS Code 9026.9000 Country of Origin DEU Delivery time 9 Weeks				

Pos.	Description	Qty.	Unit	Unit price USD	Total price USD
5.00	<b>Junction Box for 5 transducers</b> Art. 2141.00006	4	pcs	410.85 Discount 15.00 %	1,396.89
	Junction Box for 5 transducers Delivery time 9 Weeks				
6.00	<b>Transducer cable 2x1.38mm<sup>2</sup> shielded TCO</b> Art. 92.001072	1,400	m	6.34 Discount 15.00 %	7,544.60
	Long-time submersible, tensile forces absorbed by Aramid fiber Shielded cable, twisted pair Outside Diameter: D = 8.90 mm ± 0.30 mm Temperature rating: -50 °C to +70 °C Material: PE 20 x 70m Delivery time 9 Weeks				
7.00	<b>Cable Conduit 1"</b> Art. X600.00001	40	m	50.50	2,020.00
	Cable conduit 1" Material stainless steel Mounting on concrete Delivery time 9 Weeks				
8.00	<b>Cable Conduit 2"</b> Art. X600.00001	20	m	75.80	1,516.00
	Cable conduit 2" Material stainless steel Mounting on concrete Delivery time 9 Weeks				
9.00	<b>Fixing Material</b> Art. X600.00001	60	pcs	9.50	570.00
	Fixing material for conduits Material: stainless steel Anchor bolts Delivery time 9 Weeks				
10.00	<b>Connecting Elements</b> Art. X600.00001	60	pcs	14.50	870.00
	Bends, connecting elements, branches Material: stainless steel Delivery time 9 Weeks				
11.00	<b>Project Management</b> Art. DA10.00003	2	day(s)	1,502.52	3,005.04
	Technical specification, layout of the system components Delivery time 9 Weeks				
12.00	<b>Site Equipment</b> Art. X600.00001	1	pcs	4,000.00	4,000.00
	Provision of all machines, equipment, and tools Site preparation, safety briefing Delivery time 9 Weeks				

Pos.	Description	Qty.	Unit	Unit price USD	Total price USD
13.00	<b>Installation and Commissioning</b> Art. X600.0001	1	pcs	29,096.18	29,069.18
	Includes removal of existing equipment inside the channel Installation of new sensors and cable conduits Pulling of cables back to the transmitter Installation of the transmitter Parameter set-up, data transfer to SCADA system Dry and wet commissioning incl. signal check Incl. travel costs, allowance abroad, overnight stay and flight costs Delivery time 9 Weeks				
14.00	<b>Calibration</b> Art. X600.0001	1	pcs	7,844.48	7,844.48
	Additional site visit if it was found to be needed After a wet weather events occurrence Incl. travel costs, allowance abroad, overnight stay and flight costs Delivery time 9 Weeks				
				Net amount	101,969.61
<b>Total amount</b>				USD	<b>101,969.61</b>

Shipping method Dachser SE  
 Delivery terms FCA Incoterms 2020  
 Terms of payment Goods:  
 80% of the goods (Pos. 1-12, USD 52,044.76) after shipping  
 15% of the goods (Pos. 1-12, USD 9,758.39) once the meter has been demonstrated to be working properly (wet commissioning)  
 5% of the goods (Pos. 1-12, USD 3,252.80) after 1-year, wet commissioning is the trigger for the start of a 1-year warranty period and the final payment

Service Installation and Commissioning:  
 80% of the service (Pos. 13, USD 23,255.34) after installation  
 15% of the service (Pos. 13, USD 4,360.38) once the meter has been demonstrated to be working properly (wet commissioning)  
 5% of the service (Pos. 13, USD 1,453.46) after 1-year, wet commissioning is the trigger for the start of a 1-year warranty period and the final payment

Service Calibration:  
 100% of the service (Pos. 14, USD 7,844.48) after service

Terms and conditions [www.gwf-technologies.de/agb](http://www.gwf-technologies.de/agb)

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

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

**FROM:** George P. Nichols, P.E., Civil Engineer III *GPN*

**SUBJECT:** Birmingham CSO Drain 5-Year Capital Improvement Plan  
Fund #82728

**DATE:** June 28, 2022

Recommendations and discussions for establishing a 5-Year Capital Improvement Plan (CIP) within the Birmingham CSO Drain have been ongoing with WRC staff including the asset management group and staff engineers. Based on these discussions, it was recommended that an engineering consultant be hired to assist with creating and operating a capital improvement plan.

Discussions with Hubbell, Roth and Clark (HRC) took place as they have assisted our office with past CIP programs and are familiar with the operations and requirements of WRC. As outlined in their attached proposal letter (dated June 13, 2022), their scope of services include:

1. Kickoff Meeting and Receive Data and Media
2. Review of Inspection Data and Update of Asset Database
3. Coordination of Other Infrastructure Projects
4. Develop a 1-Year CIP Projects
5. Develop 2 to 5 Year CIP Projects
6. Report and Deliverables

Upon the asset management group review of HRC's proposal, we feel confident that they will provide us with the needed services to establish the required CIP program. We also feel that their cost for services is reasonable for the required work needed.

In order to proceed with this project, authorization of \$15,700 is needed from the Drainage Board. This amount is part of the \$30,000 that was already been included within the Major Maintenance Expense Budget for FY2022. This work is for the horizontal collection system.

**Requested Action:**

**It is recommended that the Board retain the services of Hubbell, Roth and Clark to proceed with establishing a 5-year Capital Improvement Plan for the Birmingham CSO Drain for the not to exceed amount of \$15,700, and to authorize the Chairperson to sign the proposal on behalf of the Drainage Board.**



June 13, 2022

Oakland County Water Resources Commissioner  
One Public Works Drive  
Waterford, Michigan 48328

Attn: Mr. George Nichols, P.E.

Re: Birmingham CSO Drain Combined Sewers  
Proposal for Engineering Services, 5-Year Capital Improvement Plan

HRC Project No. 20220487

Dear Mr. Nichols:

As requested, HRC is pleased to provide this proposal for engineering assistance related to the development of a 5-year Capital Improvement Plan for portions of the combined sewer system within the Birmingham CSO Drain. We would propose that these services be provided under the terms and conditions of our existing as-needed Engineering Services Contract.

### **BACKGROUND AND PROJECT UNDERSTANDING**

The office of the Oakland County Water Resources Commissioner (OCWRC) owns, operates and maintains the Birmingham CSO Drain. The Drain system includes a large Retention Treatment Basin and pumping station, as well as the sewerage collection system. The collection system only is the focus of this project and includes the sewers, manholes, inlets, and catch basins that collect combined and sanitary sewage and stormwater from the service area and convey it to the RTB and/or sanitary interceptors.

In approximately 2015, OCWRC received a Stormwater, Asset Management, and Wastewater (SAW) grant to prepare an Asset Management Plan (AMP) for the system. As part of that grant, OCWRC completed significant amounts of sewer televising and manhole inspections to determine the condition of the system. We understand some repairs and rehabilitation have already been completed based on the evaluations made during those inspections.

We understand that OCWRC would like assistance in reviewing the AMP and any additional CCTV sewer inspection data and/or manhole inspection data that may have been collected since the grant to identify any remaining projects for improvements to the collection system sewer pipes and manholes with a focus on the next five years. We also understand the pump station and RTB are being evaluated separately.

The identification and prioritization of recommended rehabilitation and replacement projects will include the following considerations:

- Addressing assets with the overall highest Business Risk Evaluation (BRE) using OCWRC's infrastructure optimization software, which will provide BRE scores using your "Common to All" AMP methodology.
- Coordinating any recommended projects with other infrastructure projects, including road projects that are planned in the member communities, the Road Commission for Oakland County and/or the Michigan Department of Transportation. Other potential infrastructure projects to be considered include the any drinking water system improvements and residential lead service line abatement.



We understand OCWRC staff has performed basic Quality Control and Quality Assurance (QA/QC) on the sewer and manhole inspections. In some cases, OCWRC staff may have also reviewed some of the sewer inspection data and may have provided some recommendations to address the sewers in the worst condition (NASSCO 4 or 5 defects). However, it is our understanding that the OCWRC would like to take a more holistic approach to this review and ensure that projects reflect the additional factors listed above and be coordinated in a systemic manner. The recommendations will identify the areas for repairs based on the currently available budget, and also determine if additional budget may be recommended for future years in order to have the system meet the required level of service.

As discussed, OCWRC will provide database exports (Excel format) of the sewer and manhole assets to be reviewed with key attributes for each asset (“Gravity Main Events” and “Manhole Events” spreadsheets.) HRC will review each sewer asset and respond with one or more of the following recommendations: Inspect, Trenchless, Excavating Point Repair, Grouting, Full Liner, Full Replacement, and Review Video. Similarly, for the manhole database, we understand the export will include assets flagged as “needs repair” by OCWRC staff, and HRC will review each sewer asset and respond with one or more of the following recommendations: Inspect, Grout, Rehab, Lining, Replacement, and Review Inspection. A database of currently proposed projects in the system will also be provided (“Projects List Export for 5 Year Planning” spreadsheet) and updated by HRC to reflect the 5-Year CIP recommendations.

In addition, because HRC assisted OCWRC with the SAW grant, we will review the recommendations made at that time against work already completed to identify any potential recommendations not yet completed.

## **SCOPE OF SERVICES**

### **Preliminary Engineering (Study Phase)**

#### *Task 1 – Kickoff Meeting and Receive Data*

A kickoff meeting will be held with OCWRC and HRC staff to confirm the scope, budget and schedule. At that time, a list of needed items will be prepared. HRC will review the database exports and other data and media provided by OCWRC to ensure all required data is received in an accessible format.

#### *Task 2 – Review of Inspection Data and Update of Asset Database*

While it is our understanding that OCWRC may have performed only limited inspections since the SAW Grant, we have budgeted time to review any new data that was collected. For the new data sets, we understand OCWRC has already performed basic QA/QC of the sewer televising and manhole inspection data, but additional review is necessary to confirm individual defect severity and to make recommendations for repair, rehabilitation and/or replacement of the assets for inclusion in the CIP. We understand OCWRC will provide the condition, risk and BRE scores for all pipes in potential project areas for assistance in creating proposed projects. **We have sufficient budget included for review of up to 50 sewer CCTV segments and/or manhole inspections.**

### *Task 3 – Coordination of Other Infrastructure Projects*

HRC will use the information provided to determine recommendations for individual assets as well as areas of the system where repair, rehabilitation and/or replacement are recommended. As discussed in the background section, OCWRC is interested in doing a more comprehensive program, rather just addressing the worst condition pipe. HRC will review the scores of pipes and manholes in the vicinity of proposed projects, both condition and risk, to determine where it would be more cost effective to include additional assets in a proposed project to prevent the need for coming back to do work in a given area again in the near future. HRC will also use internal resources to identify other types of infrastructure projects that are currently proposed in the study area. This will include, at a minimum, road projects (member community, RCOG and MDOT), water main and sewer projects, and lead water service line replacements.

Once this is complete, HRC staff will meet with OCWRC staff to confirm the areas that may be impacted by other construction and align any sewer projects with the other proposed projects. By performing this coordination, a “dig once” approach can be used to reduce the cost of and need to restore areas impacted by construction. It also reduces the overall impact of construction disruption on the residents and community.

### *Task 4 – Develop a 1-Year CIP Projects*

Any recommendations requiring immediate implementation will be included in the first year (current year) of the 5-Year CIP. Any proposed projects will be reported back to OCWRC by updating the existing project database for the system.

### *Task 5 – Develop 2 to 5 Year CIP Projects*

This task will continue from the previous task by identifying and prioritizing projects for inclusion in years 2 to 5 of the CIP. The work will also review and make recommendations for future budgets beyond the first five years, based on extrapolating the condition of the assets reviewed to other parts of the system. The proposed projects will be reported back to OCWRC by updating the existing project database for the system.

### *Task 6 – Report and Deliverables*

The deliverables will include a brief report with summarizing the scope of work, type of evaluations performed, other infrastructure projects reviewed, and recommendations for projects proposed to be implemented over the next 5 years with prioritization and estimated construction costs. The report will also review if the current budgets are sufficient to work toward restoring the system to the required level of service. Additional deliverables include updating the database of assets provided by OCWRC with the individual asset recommendations, providing a complete list of assets included in each of the projects in the 5-year CIP, and updating OCWRC’s existing project database for the system with the recommended projects for creation of OCWRC’s internal “project cut sheets.”

**ANTICIPATED PROJECT SCHEDULE**

We understand that the OCWRC would like to produce a 5 Year CIP document by approximately the fall of 2022, we anticipate the following schedule to finalize this work:

- Schedule kickoff meeting and begin review of available data – within two weeks of approval.
- Complete 5 Year CIP projects deliverable, September 2022.

**FEES FOR SERVICES**

**Our costs to complete this work will not exceed \$15,700.00** per the attached breakdown of hours and dollars. The fee will be billed monthly on a time and material basis under the terms and conditions of our engineering services agreement with OCWRC. We appreciate the opportunity to work with OCWRC on this important project. If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.



Daniel Mitchell, P.E.  
President.



Karyn Stickel, P.E.  
Senior Associate

/sld  
Attachment  
pc: HRC; Sally Duffy, File

Accepted By:

Signature: \_\_\_\_\_

Written Name: \_\_\_\_\_

Title: \_\_\_\_\_

Dated: \_\_\_\_\_

**OAKLAND COUNTY WATER RESOURCES COMMISSIONER  
BIRMINGHAM CSO DRAIN SEWAGE COLLECTION SYSTEM  
SEWER AND MANHOLE REHABILITATION PROGRAM**

**TABLE 1  
ESTIMATED HOURS AND FEES**

June 13, 2022

HRC Job No. 20220487

Task Description	Associate/ Managing Engineer	Senior Project Engineer	Grad Engineer	Designer (CADD/GIS)	Total Hours	Estimated Fees (Rounded)
	\$ 170	\$ 165	\$ 125	\$ 140		
<b>Preliminary Engineering (Study Phase)</b>						
1 Kickoff Meeting and Receiving Data and Media	2	4	10		16	\$ 2,250
2 Review of Inspection Data and Update of Asset Database*	2	4	10		16	\$ 2,250
3 Coordination of Other Infrastructure Projects	2	4	10	4	20	\$ 2,810
4 Develop 1 Year CIP Projects for CWSRF Project Plan	2	4	10	4	20	\$ 2,810
5 Develop 2-5 Year CIP Projects	2	4	10	4	20	\$ 2,810
6 Report and Deliverables	2	4	10	4	20	\$ 2,810
<b>PROJECT TOTALS</b>	<b>12</b>	<b>24</b>	<b>60</b>	<b>16</b>	<b>112</b>	<b>\$ 15,700</b>

\* About 6 pipes/manholes per hour by grad engineer for a total of 50 pipe/MH segments

**ESTIMATED FEE SUMMARY**

PERSONNEL	HOURS	RATE	TOTAL
Associate/Managing Engineer	12	\$ 170.00	\$ 2,040.00
Senior ProjectEngineer	24	\$ 165.00	\$ 3,960.00
Grad Engineer	60	\$ 125.00	\$ 7,500.00
Designer (CADD/GIS)	16	\$ 140.00	\$ 2,240.00

**TOTAL ESTIMATED HRC LABOR COST \$ 15,700.00**

**TOTAL SUBCONSULTANT FEES \$ -**

**TOTAL LUMP SUM NOT-TO-EXCEED \$ 15,700.00**

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 28, 2022

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 22, 2022

<u>G/L Date</u>	<u>Ref No.</u>	<u>Paid To</u>	<u>For</u>	<u>Amount</u>
	TBP	ICS Integration Services LLC	Invoice # 2377 - Contracted Services	\$ 1,043.35
	TBP	ICS Integration Services LLC	Invoice # 2361 - Contracted Services	1,962.52
6/21/2022	V # SINV00109296	JCI Jones Chemical Inc	Invoice # 885283 - Chlorination Supplies	8,306.68
	TBP	Shaw Service & Maintenance	Invoice #910006021 - Contracted Services	1,189.00
			<b>Subtotal</b>	<b>\$ 12,501.55</b>
6/1/2022	V # SINV00104145	Hubbell Roth Clark Inc	Invoice # 0195991 - Contracted Services - 04/16/2022	\$ 55.00
			<b>Subtotal Project # 1-3495</b>	<b>\$ 55.00</b>
6/21/2022	V # SINV00109154	Hamlett Environmental Technologies	Invoice # 20221970 - Material and Supplies	\$ 6,418.00
			<b>Subtotal Project # 1-3499</b>	<b>\$ 6,418.00</b>
	TBP	ICS Integration Services LLC	Invoice # 2341 - Contracted Services	\$ 1,745.33
			<b>Subtotal Project # 1-3500</b>	<b>\$ 1,745.33</b>
6/17/2022	V # SINV00108656	Brutcher & Butcher Construction Co	Invoice # Application 2 - Contracted Services	\$ 79,868.00
			<b>Subtotal Project # 1-3498</b>	<b>\$ 79,868.00</b>
			<b>Total</b>	<b>\$100,587.88</b>

## **4. Bloomfield Village CSO**

## **AGENDA**

### **DRAINAGE BOARD FOR THE BLOOMFIELD VILLAGE CSO DRAIN**

June 28, 2022

1. Call meeting to order
2. Approve minutes of meeting of April 26, 2022
3. Public Comments
4. Present Memorandum from George Nichols, P.E., Civil Engineer III, dated June 28, 2022, requesting the Board retain services from Hubbell, Roth, and Clark to proceed with establishing a 5-year Capital Improvement Plan for a not-to-exceed amount of \$15,700 and authorize the Chairperson to sign the proposal
5. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$29,186.38
6. Other business
7. Approve pro rata payment to Drainage Board members
8. Adjourn

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

April 26, 2022

A meeting of the Drainage Board for the Bloomfield Village CSO 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 26<sup>th</sup> day of April 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

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

David Woodward, Chairperson of the Oakland County Board of Commissioners

ABSENT: None.

Minutes of the meeting held March 22, 2022, were presented for consideration. It was moved by Markham, 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 Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$1,428,490 for the Bloomfield Village CSO Drain (as attached) were presented. It was moved by Markham, supported by Woodward, to adopt the Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$1,428,490 as presented.

ADOPTED: Yeas - 3  
Nays - 0

A request for reimbursement of the Evergreen Farmington Fund in the amount of \$135,881.01 (as attached) was presented. It was moved by Markham, supported by Woodward, to reimburse the Evergreen Farmington Fund in the amount of \$135,881.01.

ADOPTED: Yeas - 3  
Nays - 0

A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$31,184.89 (as attached) was presented. It was moved by Markham, supported by Woodward, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$31,184.89.

ADOPTED: Yeas - 3

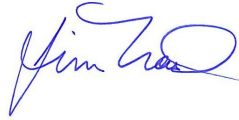


Nays - 0

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.



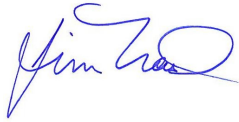
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Jim Nash, Chairperson

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 for the Bloomfield Village CSO Drain, Oakland County, Michigan, held on the 26<sup>th</sup> day of April 2022, 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.



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Jim Nash, Chairperson

Dated: April 26, 2022

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

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

**FROM:** George P. Nichols, P.E., Civil Engineer III *GPN*

**SUBJECT:** Bloomfield Village CSO Drain 5-Year Capital Improvement Plan  
Fund #82730

**DATE:** June 28, 2022

Recommendations and discussions for establishing a 5-Year Capital Improvement Plan (CIP) within the Bloomfield Village CSO Drain have been ongoing with WRC staff including the asset management group and staff engineers. Based on these discussions, it was recommended that an engineering consultant be hired to assist with creating and operating a capital improvement plan.

Discussions with Hubbell, Roth and Clark (HRC) took place as they have assisted our office with past CIP programs and are familiar with the operations and requirements of WRC. As outlined in their attached proposal letter (dated June 13, 2022), their scope of services include:

1. Kickoff Meeting and Receive Data and Media
2. Review of Inspection Data and Update of Asset Database
3. Coordination of Other Infrastructure Projects
4. Develop a 1-Year CIP Projects
5. Develop 2 to 5 Year CIP Projects
6. Report and Deliverables

Upon the asset management group review of HRC's proposal, we feel confident that they will provide us with the needed services to establish the required CIP program. We also feel that their cost for services is reasonable for the required work needed.

In order to proceed with this project, authorization of \$15,700 is needed from the Drainage Board. This amount is part of the \$50,000 that was already been included within the Major Maintenance Expense Budget for FY2022. This work is for the horizontal collection system.

**Requested Action:**

**It is recommended that the Board retain the services of Hubbell, Roth and Clark to proceed with establishing a 5-year Capital Improvement Plan for the Bloomfield Village CSO Drain for the not to exceed amount of \$15,700, and to authorize the Chairperson to sign the proposal on behalf of the Drainage Board.**



June 13, 2022

Oakland County Water Resources Commissioner  
One Public Works Drive  
Waterford, Michigan 48328

Attn: Mr. George Nichols, P.E.

Re: Bloomfield Village CSO Drain Combined Sewers  
Proposal for Engineering Services, 5-Year Capital Improvement Plan

HRC Project No. 20220489

Dear Mr. Nichols:

As requested, HRC is pleased to provide this proposal for engineering assistance related to the development of a 5-year Capital Improvement Plan for portions of the combined sewer system within the Bloomfield Village CSO Drain. We would propose that these services be provided under the terms and conditions of our existing as-needed Engineering Services Contract.

### **BACKGROUND AND PROJECT UNDERSTANDING**

The office of the Oakland County Water Resources Commissioner (OCWRC) owns, operates and maintains the Bloomfield Village CSO Drain. The Drain system includes a large Retention Treatment Basin, as well as the sewerage collection system. The collection system only is the focus of this project and includes the sewers, manholes, inlets, and catch basins that collect combined and sanitary sewage and stormwater from the service area and convey it to the RTB and/or sanitary interceptors.

In approximately 2015, OCWRC received a Stormwater, Asset Management, and Wastewater (SAW) grant to prepare an Asset Management Plan (AMP) for the system. As part of that grant, OCWRC completed significant amounts of sewer televising and manhole inspections to determine the condition of the system. We understand some repairs and rehabilitation have already been completed based on the evaluations made during those inspections.

We understand that OCWRC would like assistance in reviewing the AMP and any additional CCTV sewer inspection data and/or manhole inspection data that may have been collected since the grant to identify any remaining projects for improvements to the collection system sewer pipes and manholes with a focus on the next five years. We also understand the pump station and RTB are being evaluated separately.

The identification and prioritization of recommended rehabilitation and replacement projects will include the following considerations:

- Addressing assets with the overall highest Business Risk Evaluation (BRE) using OCWRC's infrastructure optimization software, which will provide BRE scores using your "Common to All" AMP methodology.
- Coordinating any recommended projects with other infrastructure projects, including road projects that are planned in the member communities, the Road Commission for Oakland County and/or the Michigan Department of Transportation. Other potential infrastructure projects to be considered include the any drinking water system improvements and residential lead service line abatement.

We understand OCWRC staff has performed basic Quality Control and Quality Assurance (QA/QC) on the sewer and manhole inspections. In some cases, OCWRC staff may have also reviewed some of the sewer inspection data and may have provided some recommendations to address the sewers in the worst condition (NASSCO 4 or 5 defects). However, it is our understanding that the OCWRC would like to take a more holistic approach to this review and ensure that projects reflect the additional factors listed above and be coordinated in a systemic manner. The recommendations will identify the areas for repairs based on the currently available budget, and also determine if additional budget may be recommended for future years in order to have the system meet the required level of service.

As discussed, OCWRC will provide database exports (Excel format) of the sewer and manhole assets to be reviewed with key attributes for each asset (“Gravity Main Events” and “Manhole Events” spreadsheets.) HRC will review each sewer asset and respond with one or more of the following recommendations: Inspect, Trenchless, Excavating Point Repair, Grouting, Full Liner, Full Replacement, and Review Video. Similarly, for the manhole database, we understand the export will include assets flagged as “needs repair” by OCWRC staff, and HRC will review each sewer asset and respond with one or more of the following recommendations: Inspect, Grout, Rehab, Lining, Replacement, and Review Inspection. A database of currently proposed projects in the system will also be provided (“Projects List Export for 5 Year Planning” spreadsheet) and updated by HRC to reflect the 5-Year CIP recommendations.

In addition, because HRC assisted OCWRC with the SAW grant, we will review the recommendations made at that time against work already completed to identify any potential recommendations not yet completed.

## **SCOPE OF SERVICES**

### **Preliminary Engineering (Study Phase)**

#### *Task 1 – Kickoff Meeting and Receive Data*

A kickoff meeting will be held with OCWRC and HRC staff to confirm the scope, budget and schedule. At that time, a list of needed items will be prepared. HRC will review the database exports and other data and media provided by OCWRC to ensure all required data is received in an accessible format.

#### *Task 2 – Review of Inspection Data and Update of Asset Database*

While it is our understanding that OCWRC may have performed only limited inspections since the SAW Grant, we have budgeted time to review any new data that was collected. For the new data sets, we understand OCWRC has already performed basic QA/QC of the sewer televising and manhole inspection data, but additional review is necessary to confirm individual defect severity and to make recommendations for repair, rehabilitation and/or replacement of the assets for inclusion in the CIP. We understand OCWRC will provide the condition, risk and BRE scores for all pipes in potential project areas for assistance in creating proposed projects. **We have sufficient budget included for review of up to 50 sewer CCTV segments and/or manhole inspections.**

### *Task 3 – Coordination of Other Infrastructure Projects*

HRC will use the information provided to determine recommendations for individual assets as well as areas of the system where repair, rehabilitation and/or replacement are recommended. As discussed in the background section, OCWRC is interested in doing a more comprehensive program, rather just addressing the worst condition pipe. HRC will review the scores of pipes and manholes in the vicinity of proposed projects, both condition and risk, to determine where it would be more cost effective to include additional assets in a proposed project to prevent the need for coming back to do work in a given area again in the near future. HRC will also use internal resources to identify other types of infrastructure projects that are currently proposed in the study area. This will include, at a minimum, road projects (member community, RCOC and MDOT), water main and sewer projects, and lead water service line replacements.

Once this is complete, HRC staff will meet with OCWRC staff to confirm the areas that may be impacted by other construction and align any sewer projects with the other proposed projects. By performing this coordination, a “dig once” approach can be used to reduce the cost of and need to restore areas impacted by construction. It also reduces the overall impact of construction disruption on the residents and community.

### *Task 4 – Develop a 1-Year CIP Projects*

Any recommendations requiring immediate implementation will be included in the first year (current year) of the 5-Year CIP. Any proposed projects will be reported back to OCWRC by updating the existing project database for the system.

### *Task 5 – Develop 2 to 5 Year CIP Projects*

This task will continue from the previous task by identifying and prioritizing projects for inclusion in years 2 to 5 of the CIP. The work will also review and make recommendations for future budgets beyond the first five years, based on extrapolating the condition of the assets reviewed to other parts of the system. The proposed projects will be reported back to OCWRC by updating the existing project database for the system.

### *Task 6 – Report and Deliverables*

The deliverables will include a brief report with summarizing the scope of work, type of evaluations performed, other infrastructure projects reviewed, and recommendations for projects proposed to be implemented over the next 5 years with prioritization and estimated construction costs. The report will also review if the current budgets are sufficient to work toward restoring the system to the required level of service. Additional deliverables include updating the database of assets provided by OCWRC with the individual asset recommendations, providing a complete list of assets included in each of the projects in the 5-year CIP, and updating OCWRC’s existing project database for the system with the recommended projects for creation of OCWRC’s internal “project cut sheets.”

**ANTICIPATED PROJECT SCHEDULE**

We understand that the OCWRC would like to produce a 5 Year CIP document by approximately the fall of 2022, we anticipate the following schedule to finalize this work:

- Schedule kickoff meeting and begin review of available data – within two weeks of approval.
- Complete 5 Year CIP projects deliverable, September, 2022.

**FEES FOR SERVICES**

**Our costs to complete this work will not exceed \$15,700.00** per the attached breakdown of hours and dollars. The fee will be billed monthly on a time and material basis under the terms and conditions of our engineering services agreement with OCWRC. We appreciate the opportunity to work with OCWRC on this important project. If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.



Daniel Mitchell, P.E.  
President.



Karyn Stickel, P.E.  
Senior Associate

/sld  
Attachment  
pc: HRC; Sally Duffy, File

Accepted By:

Signature: \_\_\_\_\_

Written Name: \_\_\_\_\_

Title: \_\_\_\_\_

Dated: \_\_\_\_\_

**OAKLAND COUNTY WATER RESOURCES COMMISSIONER  
 BLOOMFIELD VILLAGE CSO DRAIN SEWAGE COLLECTION SYSTEM  
 SEWER AND MANHOLE REHABILITATION PROGRAM**

**TABLE 1  
 ESTIMATED HOURS AND FEES**

June 13, 2022

HRC Job No. 20220489

Task Description	Associate/ Managing Engineer	Senior Project Engineer	Grad Engineer	Designer (CADD/GIS)	Total Hours	Estimated Fees (Rounded)
	\$ 170	\$ 165	\$ 125	\$ 140		
<b>Preliminary Engineering (Study Phase)</b>						
1 Kickoff Meeting and Receiving Data and Media	2	4	10		16	\$ 2,250
2 Review of Inspection Data and Update of Asset Database*	2	4	10		16	\$ 2,250
3 Coordination of Other Infrastructure Projects	2	4	10	4	20	\$ 2,810
4 Develop 1 Year CIP Projects for CWSRF Project Plan	2	4	10	4	20	\$ 2,810
5 Develop 2-5 Year CIP Projects	2	4	10	4	20	\$ 2,810
6 Report and Deliverables	2	4	10	4	20	\$ 2,810
<b>PROJECT TOTALS</b>	<b>12</b>	<b>24</b>	<b>60</b>	<b>16</b>	<b>112</b>	<b>\$ 15,700</b>

\* About 6 pipes/manholes per hour by grad engineer for a total of 50 pipe/MH segments

**ESTIMATED FEE SUMMARY**

PERSONNEL	HOURS	RATE	TOTAL
Associate/Managing Engineer	12	\$ 170.00	\$ 2,040.00
Senior ProjectEngineer	24	\$ 165.00	\$ 3,960.00
Grad Engineer	60	\$ 125.00	\$ 7,500.00
Designer (CADD/GIS)	16	\$ 140.00	\$ 2,240.00

**TOTAL ESTIMATED HRC LABOR COST \$ 15,700.00**

**TOTAL SUBCONSULTANT FEES \$ -**

**TOTAL LUMP SUM NOT-TO-EXCEED \$ 15,700.00**



**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 28, 2022

**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 22, 2022

<u>G/L Date</u>	<u>Ref No.</u>	<u>Paid To</u>	<u>For</u>	<u>Amount</u>
	TBP	ICS Integration Services LLC	Invoice # 2377 - Contracted Services	\$ 1,043.35
	TBP	ICS Integration Services LLC	Invoice # 2361 - Contracted Services	1,962.54
			<b>Total</b>	<b>\$ 3,005.89</b>
6/1/2022	V # SINV00104183	Shaw Service & Maintenance	Invoice #910006020 - Contracted Services	\$ 18,017.15
			<b>Project # 1-3501 Subtotal</b>	<b>\$ 18,017.15</b>
	TBP	ICS Integration Services LLC	Invoice # 2341 - Contracted Services	\$ 1,745.34
			<b>Project # 1-3505 Subtotal</b>	<b>\$ 1,745.34</b>
6/21/2022	V # SINV00109154	Hamlett Environmental Technologies	Invoice # 20221970 - Material and Supplies	\$ 6,418.00
			<b>Project # 1-3504 Subtotal</b>	<b>6,418.00</b>
			<b>Total</b>	<b>\$ 29,186.38</b>

**5. Clinton River Water  
Resource Recovery Facility**

## **AGENDA**

### **DRAINAGE BOARD FOR THE CLINTON RIVER WATER RESOURCE RECOVERY FACILITY**

June 28, 2022

1. Call meeting to order
2. Approve minutes of meeting of May 24, 2022
3. Public Comments
4. Present Memorandum from Leslie Maes, Operations Engineer, dated June 24, 2022, requesting the Board to authorize staff to retain PM Environmental to perform a Phase II Environmental Site Assessment at Lease Area 'F' for a cost not-to-exceed \$12,550.
5. Present request for Board approval of payment of invoices and/or reimbursement from the Construction Fund in the amount \$9,082.47
6. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund from the Maintenance Fund in the amount of \$405,117.55
7. Other business
8. Approve pro rate payment to Drainage Board members
9. Adjourn

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

May 24, 2022

A meeting of the Drainage Board for the Clinton River Water Resource Recovery Facility 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 24<sup>th</sup> day of May 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

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

David Woodward, Chairperson of the Oakland County Board of Commissioners

ABSENT: None.

Minutes of the meeting held April 26, 2022, were presented for consideration. It was moved by Markham, 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 memorandum from John Basch, Senior Attorney, dated May 24, 2022, requesting the Board to offer new leases to Green Acres Tree Farm and Joshua's Tree Service, authorize the Chairperson to execute those leases on behalf of the Drainage District, and offer the remaining three sites for lease by competitive bid after July 1, 2022, was presented. It was moved by Markham, supported by Woodward to offer new leases to Green Acres Tree Farm and Joshua's Tree Service, authorize the Chairperson to execute those leases on behalf of the Drainage District, and offer the remaining three sites for lease by competitive bid after July 1, 2022, as presented.

ADOPTED: Yeas - 3  
Nays - 0

A memorandum from Razik Alsaigh, P.E., Civil Engineer III, dated May 24, 2022, requesting the Board to adopt the resolution and agree to implement the projects identified in the Drainage District's project plan and designate an authorized representative for all activities associated with projects in the project plan was presented. It was moved by Markham, supported by Woodward, to adopt the resolution and agree to implement the projects identified in the Drainage District's project plan and designate an authorized representative for all activities associated with projects in the project plan as presented.

ADOPTED: Yeas - 3  
Nays - 0

A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund from the Construction Fund in the amount of \$13,983.68 (as attached) was presented. It was moved by Markham, supported by Woodward, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund from the Construction Fund in the amount of \$13,983.68.

ADOPTED: Yeas - 3  
Nays - 0


A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund from the Maintenance Fund in the amount of \$254,571.11 (as attached) was presented. It was moved by Markham, supported by Woodward, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund from the Maintenance Fund in the amount of \$254,571.11.

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.



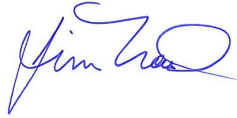
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Jim Nash, Chairperson

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 for the Clinton River Water Resource Recovery Facility, Oakland County, Michigan, held on the 24<sup>th</sup> day of May 2022, 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 Clinton River Water Resource Recovery Facility.



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Jim Nash, Chairperson

Dated: May 24, 2022

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

**TO:** Jim Nash, Chairperson  
Clinton River Water Resource Recovery Facility

**FROM:** Lesli Maes, Operations Engineer

**SUBJECT:** Lease Area 'F' Proposed Environmental Site Investigation

**DATE:** June 28, 2022

As part of the assessment of the lease properties associated with Clinton River Water Resource Recovery Facility, PM Environmental, an environmental consulting and engineering services company, recently completed a Phase I Environmental Site Assessment for this property. The purpose for this assessment was to gather current and historical information about the property to determine if there is a potential for environmental risk or contamination that would affect its value or use. Based on its investigation, Lease Area 'F' may warrant additional investigation before the building and associated septic field is offered for lease.

The WRC has requested and received a proposal (attached) from PM Environmental for a Phase II assessment to provide a more comprehensive assessment of the conditions around the building and septic field on Lease Area 'F' for a cost not to exceed \$12,550. Staff recommends that PM Environmental collect and analyze additional soil samples and soil gas sampling points as defined in its scope of work, to determine if there is any contamination beneath the building or in the septic field area that could present a risk.

**Recommended Action: Retain PM Environmental to perform a Phase II Environmental Site Assessment at Lease Area 'F' for a cost not to exceed \$12,550.**



# PROPOSAL FOR A LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

For WWTP and Associated Leased Areas Located at 274 Martin Luther King Jr. Boulevard North in Pontiac, Michigan

PM Environmental Proposal No. 01021323

PM Environmental (PM) is pleased to present this proposal and cost estimate for a Limited Phase II Environmental Site Assessment (ESA) of the Wastewater Treatment Plant (WWTP) and Associated Leased Areas located at 274 Martin Luther King Jr. Boulevard North in Pontiac, Michigan (subject property). This proposal includes a scope of work, costs, schedule for completion of work, and the terms and conditions of the agreement. After reviewing the Scope of Work and Terms and Conditions, please initial each page in the boxes provided, complete the information in the Acceptance of Proposal section, and return it to our attention. PM requires written authorization to proceed prior to commencing a project.

## BASIS FOR ASSESSMENT

The Limited Phase II ESA scope of work is intended to address specific recognized environmental conditions (RECs) identified with the subject property in the Phase I ESA report completed by PM (PM project: 01-13610-1-0001) dated March 1, 2022. The following are all of the on-site RECs that were identified within the Phase I ESA:

- The subject property has been occupied by WWTP operations, including onsite waste lagoons, sludge pits, and clarifying pits, since 1925, as well as landscaping material/equipment storage at various times/locations since 1989, with associated equipment/vehicle maintenance activities in the Bedrock Enterprise building in at least 2014. Previous site investigations conducted in 2014 documented that soil and groundwater contamination is present onsite above the Part 201 Residential and Nonresidential cleanup criteria. Based on these analytical results and those from samples collected as part of the overall site investigation, the subject property has been classified as a 'facility' as defined by Part 201 of P.A. 451, and the rules promulgated thereunder.
- Previous site investigations conducted in 2014 documented that chlorinated solvents are present in soil present beneath the Bedrock Enterprise building above the Part 201 Residential and Nonresidential Soil Volatilization to Indoor Air Inhalation (SVII) cleanup criteria and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Nonresidential Volatilization to Indoor Air Pathway (VIAP) screening levels, which were likely released from former maintenance operations. Based upon this information, the potential exists for a vapor intrusion condition to be present.
- As noted above, the subject property has been occupied by WWTP operations, including onsite waste lagoons, sludge pits, and clarifying pits, since 1925. WWTPs receive wastewater from industry and households, which can include hazardous materials, petroleum products, and per- and polyfluoroalkyl substances (PFAS). A significant portion of this timeframe preceded major environmental regulations and current waste management and disposal procedures. PM was unable to determine whether the former lagoons, sludge removal pits, or clarifying pits were lined during their time of operation; therefore, PM cannot comment as to whether the former lagoons/pits adequately prevented downward migration of waste into the subsurface. Previous site investigations conducted in 2014 included the advancement of nine soil borings, installation of three temporary monitoring wells, and the collection of 10 soil and three groundwater samples for laboratory analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and Michigan 10 Metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, zinc), or some combination thereof. Based on the size of the subject property and limited sampling/laboratory analysis conducted to evaluate WWTP operations, previous site investigations



were not adequate to assess the long term operations. The potential exists for contamination to be present associated with the long term WWTP operations in areas not previously and/or adequately assessed.

- As noted above, portions of the subject property have been occupied by landscaping material/equipment storage at various times/locations since 1989, with associated equipment/vehicle maintenance activities in the Bedrock Enterprise building in at least 2014. According to Mr. Parrott, a representative of Oakland County Water Resources Commission (WRC, the current owner), dumping has occurred in the northeastern portion of the subject property (Lease Area A) concurrent with landscaping material and equipment storage operations since the early 2000s. Additionally, Mr. Parrott indicated that an unknown individual potentially buried debris onsite within the last six to 12 months; however, the location and extent of buried materials is unknown. Review of aerial photography indicates that disturbed soils have been present in the northeastern portion (Lease Area A) and along the eastern and southern property boundaries (Lease Areas E, F, and G) at various times since at least 1997. Additionally, site observations identified evidence of dumping based on the presence of general construction debris and soil in the northeastern portion, as well as large soil mounds in the eastern and southern portions. According to Mr. Parrott, the majority of the soil in the northeastern portion is likely not native soil; based on observations during the site reconnaissance, non-native soils are likely present throughout the eastern and southern portions of the subject property. The source of onsite soils and dumped materials is unknown. Based on the long-term dumping of unknown soil, gravel, and miscellaneous materials, and unknown origin of the material, the potential exists for contamination to be present from these activities.
- During the site reconnaissance, PM observed a catch basin in the Bedrock Enterprise building warehouse, which likely discharges to the nearby septic field. The structural integrity of the basin is unknown; based on the age of the building (25-35 years), the potential exists for failures of the drainage system (i.e., cracks, leaks) to have occurred over time. The Bedrock enterprise building was formerly utilized for equipment/vehicle maintenance in at least 2014; however, the timeframe of maintenance operations is unknown. Previous site investigations included advancement of one building inside the building, but PM was unable to determine its proximity to the catch basin. The structural integrity and historical waste management practices associated with the basin are unknown and may be a source of subsurface contamination.
- The Bedrock Enterprise building is currently connected to a private septic field, which is located west of the subject building, and was likely installed during construction between 1987 and 1997. The Bedrock Enterprise building was utilized for equipment/vehicle maintenance operations in at least 2014, and potentially from initial construction until 2014. Additionally, a catch basin is present in the warehouse that likely discharges to the onsite septic system, which may have been a source of improper disposal of materials into the septic field. The historical waste management practices associated with the potential long term service operations and onsite septic field are unknown and may be a source of subsurface contamination.
- Review of aerial photography indicates that disturbed soils have been present at multiple locations throughout the subject property at various times since 1937. Additionally, Clinton River, which previously meandered along the southern portion of the subject property, was channelized between 1956 and 1961, at which time the former riverbed was backfilled. The source of the disturbed soils and backfill material is unknown. The potential exists for unsuitable fill materials to have been brought onsite from a contaminated source and negatively impacted the subsurface.

The following adjoining and/or nearby REC was identified:

- The north and east adjoining properties, currently and formerly identified as 850 and 900 Featherstone Street, were historically occupied by wastewater treatment operations associated with the subject property and other high risk operations (i.e., light industrial, automotive service, etc.), which were assessed as part of the 2014 site investigation conducted also on the subject property. Analytical results from the 2014 site investigation documented that soil contamination is present above the Part 201 Residential and Nonresidential cleanup criteria. Based on the overall use of the subject property area for long term former and current wastewater

treatment operations, delineation of contamination is likely not feasible due to comingling of contamination and close proximity.

**At the request of the client, PM has prepared the following scope of work to assess specific concerns identified for Lease Area F, including the potential vapor intrusion condition to the Bedrock Enterprise Building and the associated septic field.**

## SCOPE OF WORK

PM proposes the following scope of work:

- Based upon records reviewed within the Phase I ESA, local geology is expected to consist of sandy, silty, and clayey fill (i.e., concrete, wood, asphalt, glass) underlain by gravel, sand, silty sand, and silty clay, with groundwater present within 14.0 feet of the ground surface. Based on the RECs identified, anticipated local geology and depth to groundwater, PM will advance up to 5 soil borings using a Geoprobe® drill rig and/or stainless-steel hand auger to a maximum depth of 20.0 feet below ground surface (bgs). In the event that groundwater is encountered at a depth shallower than 20.0 feet bgs and/or refusal is encountered, soil borings may be terminated prior to reaching the intended terminal depth (i.e., 20.0 feet bgs), if the REC can be appropriately assessed without advancing the borings to 20.0 feet bgs.
- A Geoprobe® and/or hand auger will be utilized to collect soil samples. Soils will be examined for physical evidence of contamination and classified by a PM field scientist. Soil sample selection will be based upon field screening for the highest PID readings, visual contamination and depths likely to encounter contamination based upon the RECs identified.
- Polyvinyl chloride (PVC) temporary well installation materials will be installed in the annulus of borehole from which groundwater samples are to be collected, if groundwater is encountered in sufficient quantities for sampling. These well materials will be removed from the subject property following completion of the Limited Phase II ESA.
- All soil and groundwater samples will be sealed in appropriate sample containers, placed in ice-packed coolers for transportation, and stored in a refrigerator to await pick-up for laboratory analysis under chain of custody (COC) procedures.
- Install three sub-slab soil gas sampling points using a hammer drill and high-density polyethylene soil gas sampling materials from which soil gas samples will be collected. These materials will be removed from the subject property following completion of the Limited Phase II ESA.
- Soil samples will be collected from each boring and chemically analyzed by an independent laboratory for analysis of volatile organic compounds (VOCs), polynuclear aromatic compounds (PNAs), and metals (cadmium, chromium, lead), or some combination thereof. Groundwater samples, if groundwater is encountered, will also be collected for laboratory analysis of the aforementioned parameters.
- Soil gas samples will be collected from the soil gas sampling points in accordance with current guidance, and chemically analyzed by an independent laboratory for analysis of VOCs via USEPA method TO-15.
- A Limited Phase II ESA Report will be prepared documenting the geology encountered, chemical analytical results, and comparisons to applicable cleanup criteria. If contamination is detected, recommendations as to whether it could present a risk will be made and possible cleanup alternatives (i.e., excavation, etc.) will be evaluated.

## COST TABLE

Field Activities	
Drilling and operations (5 soil borings and 3 soil gas points)	\$5,325
Laboratory Analytical	
Laboratory analysis of 3 samples for VOCs, PNAs, cadmium, chromium, and lead	\$825
Laboratory analysis of 3 samples for VOCs	\$210
Laboratory analysis of 3 soil gas samples for VOCs	\$690
Project Management and Reporting	
Data evaluation, project management and LimitedPhase II ESA report preparation	\$4,250
<b>TOTAL LUMP SUM COSTS</b>	<b>\$11,300</b>

## SCHEDULE

Activity	Turnaround Time*
Request clearing of public utilities with the state one-call center	3 business days
Schedule and complete field activities	30-40 business days
Standard 7-business day turnaround of laboratory analytical results	7 business days
Data evaluation and preparation of a Limited Phase II ESA Report	10-15 business days after receipt of analytical data

\*The turnaround times and costs included above are contingent on engagement within 7 business days of the proposal date. Turnaround times and costs can change and if not engaged within 7 business days, it may be necessary for PM to provide a new proposal with updated turnaround times and costs.

## ASSUMPTIONS AND CLIENT RESPONSIBILITY

- PM will include an electronic copy of the report within the lump sum fee. PM can provide one hard copy of the report within the lump sum fee, at the request of the client. Additional hard copies of the report can be provided for an additional \$100 per copy at the request of the client.
- The scope herein includes up to two hours of consultation after the final report has been submitted to the client. Additional time for consultation services will be billed on a time and materials basis.
- The current owner will be cooperative in providing site access and allow soil borings to be advanced on the subject property and within the subject building.
- PM requests that the Client, prior to PM initiating field work activities, have marked by appropriate utility and/or maintenance companies, the location of all underground utilities, UST system components/piping, or improvements, and to provide a knowledgeable contact person on-site at the time of PM's activities to identify said utilities and improvements. PM shall not be liable for damage to unmarked underground utilities, UST system components/piping, or improvements. PM has also provided a cost for using GPR to clear the borings at the end of this proposal.



- The generic volatilization to indoor air inhalation criteria in Michigan are based upon several default assumptions (homogenous soils, depth of groundwater, building construction, etc.), which may not be representative of subject property conditions. For locations where generic volatilization to indoor air inhalation criteria do not apply, a request to EGLE to develop site-specific volatilization to indoor air criteria (VIAC) must be made, or site-specific criteria can be developed independently and submitted to EGLE for approval prior to use.

**Timelines/schedules for EGLE VIAC development requests and/or approvals of plans, reports, or site-specific criteria submitted to EGLE cannot be guaranteed by PM.**

### Services Not Included

Any document review outside of the records review noted above, meetings and consultations or report revisions by third parties will be billed when requested on a time and materials basis at PM's current billing rates. Overnight Delivery Costs will be billed at cost plus 15%.

## TERMS AND CONDITIONS

This proposal and the scope of work contained within will be governed in accordance with PM's October 2020 Qualification Information and Proposal, signed January 14, 2021.

## ACCEPTANCE OF PROPOSAL

PM has presented this proposal for your acceptance. Your acceptance of this proposal indicates that the terms, conditions, and provisions of this proposal are understood, including payment to PM upon receipt of the invoice, unless specifically arranged or otherwise in writing. The terms, conditions, and provisions of this proposal are for the client that the proposal is addressed to in the header. If a different client executes the proposal, PM retains the right to update the terms, conditions, and provisions of the proposal and request re-authorization. Of course, should you wish to discuss the terms and conditions of this proposal, we would be pleased to do so at your earliest convenience. Please initial each page in the boxes provided, complete the acknowledgement section below, and return it to our attention. PM requires written authorization to proceed prior to commencing a project.

<b>TOTAL ESTIMATED PROJECT COST BASED ON SCOPE OF WORK</b>
\$11,300

If the client cannot guarantee that private utilities and/or UST system components will be marked, PM can clear the proposed soil boring locations using ground penetrating radar (GPR) for an additional cost of \$1,250. If clearing of the proposed boring locations using GPR is requested, please initial the following box.

<b>Clearing of proposed soil boring using GPR requested – additional \$1,250 (please initial)</b>	<b>Yes</b>	<b>No</b>

Should a project change status at any time during the billing stage then the following conditions apply:

- If the project is canceled/placed on hold prior to the completion of field work, time and material (T&M) will be billed to the client.
- If the project is canceled/placed on hold after the completion of field work but prior to samples being submitted to the laboratory, then 100% of the field work cost is owed and T&M of the project management/reporting cost is owed.



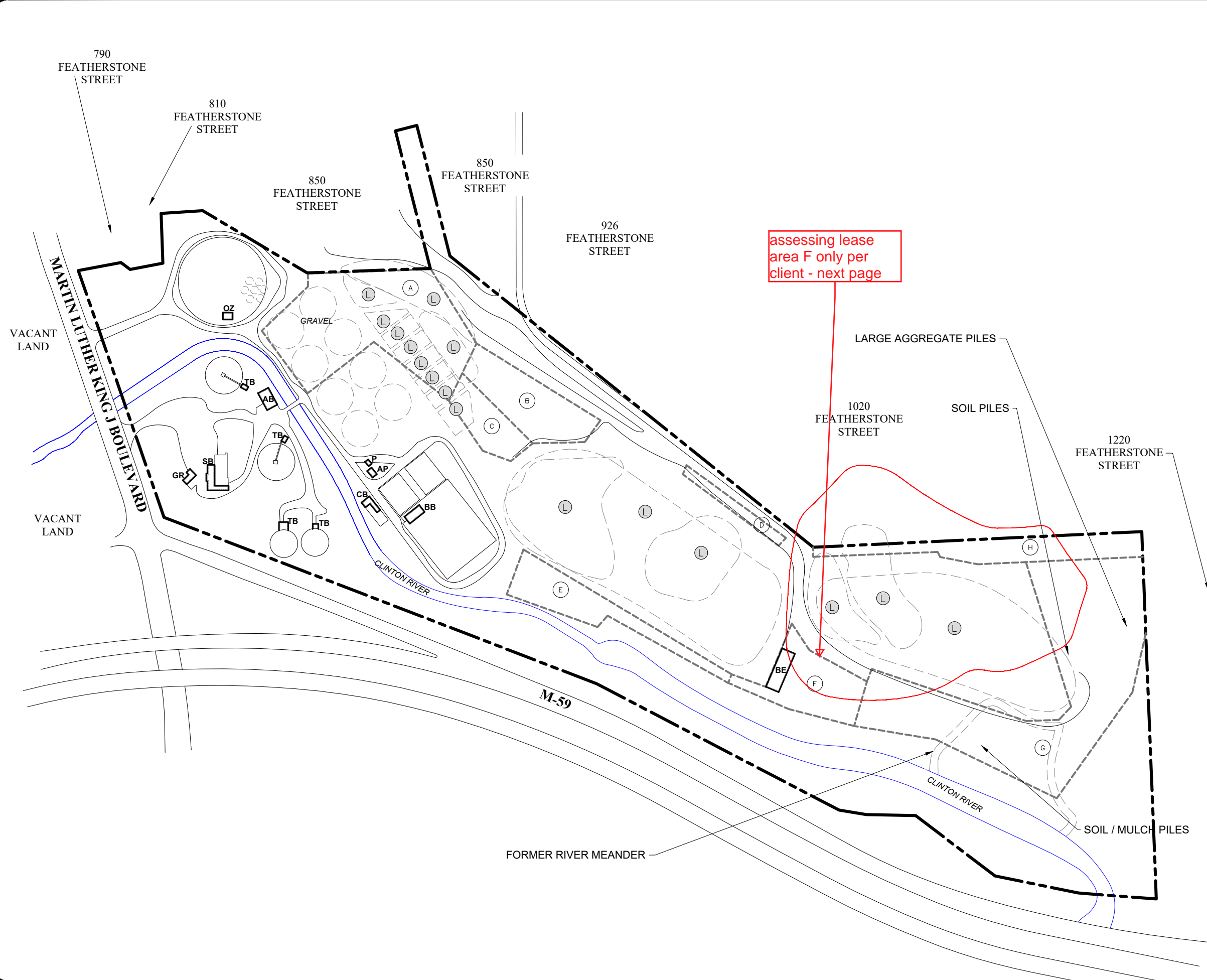
- If the project is canceled/placed on hold after the completion of field work and after the samples have been submitted to the laboratory, then 100% of the field work cost and 100% of the laboratory analytical cost is owed and T&M of the project management/reporting cost is owed.
- If the project is canceled/placed on hold prior to finalizing the report, then 100% of the total project fee is owed.

ACKNOWLEDGEMENT AND AUTHORIZATION TO PROCEED			
Company Name			
Title		Phone Number	
Signature		Date	
Mailing Address			
Billing Contact (if different than above; Name, Phone, Email and Address)			

PM looks forward to assisting you with this project. Please contact us at 800-313-2966 or email at [hack@pmenv.com](mailto:hack@pmenv.com) with any questions related to the project or this proposal.

Sincerely,  
**PM ENVIRONMENTAL**

Tonia Hack  
Project Geologist



**LEGEND:**

- SUBJECT PROPERTY
- LEASE AREA BOUNDARIES
- APPROXIMATE FORMER/HISTORICAL SITE FEATURES
- ~ FORMER EXTENT OF DISTURBED SOILS
- FORMER LAGOONS

DESCRIPTION	
A	LEASE AREA A: VACANT
B	LEASE AREA B: TREE / LANDSCAPING STORAGE
C	LEASE AREA C: TREE / LANDSCAPING STORAGE
D	LEASE AREA D: TREE STORAGE / PARKING
E	LEASE AREA E: STUMP / FIREWOOD STORAGE
F	LEASE AREA F: BEDROCK CONSTRUCTION (LANDSCAPING/AGGREGATE STORAGE)
G	LEASE AREA G: BEDROCK CONSTRUCTION (MULCH/SOIL/ WOOD/ CONCRETE STORAGE)
H	LEASE AREA H: AGGREGATE STORAGE
BE	BEDROCK ENTERPRISE BUILDING
BB	BLOWER BUILDING
CB	CHLORINE BUILDING
P	PUMP HOUSE
AP	ABANDONED PUMP STATION
TB	TANK BUILDING
OZ	OZONE CONTACT BUILDING
AB	ADMINISTRATION BUILDING
SB	SCREEN BUILDING

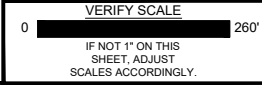
**NOTE:**  
 1. LOCATION OF HISTORICAL SITE FEATURES ARE APPROXIMATE ONLY.  
 2. REFERENCES: AERIAL PHOTOGRAPH FROM GOOGLE EARTH, IMAGERY DATE 3/19/2021



**FIGURE 2**  
 SUBJECT PROPERTY AND ADJOINING PROPERTIES

**PROJECT:**  
 WWTP AND ASSOCIATED LEASED AREAS  
 274 MARTIN LUTHER KING JR BOULEVARD NORTH  
 PONTIAC, MI

THIS IS NOT A LEGAL SURVEY	DRAWN BY: CS	DATE: 2/17/2022
VERIFY SCALE	CHECKED BY: TH	SCALE: 1" = 260'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.		FILE NAME: 01-13610-1-001F00R00

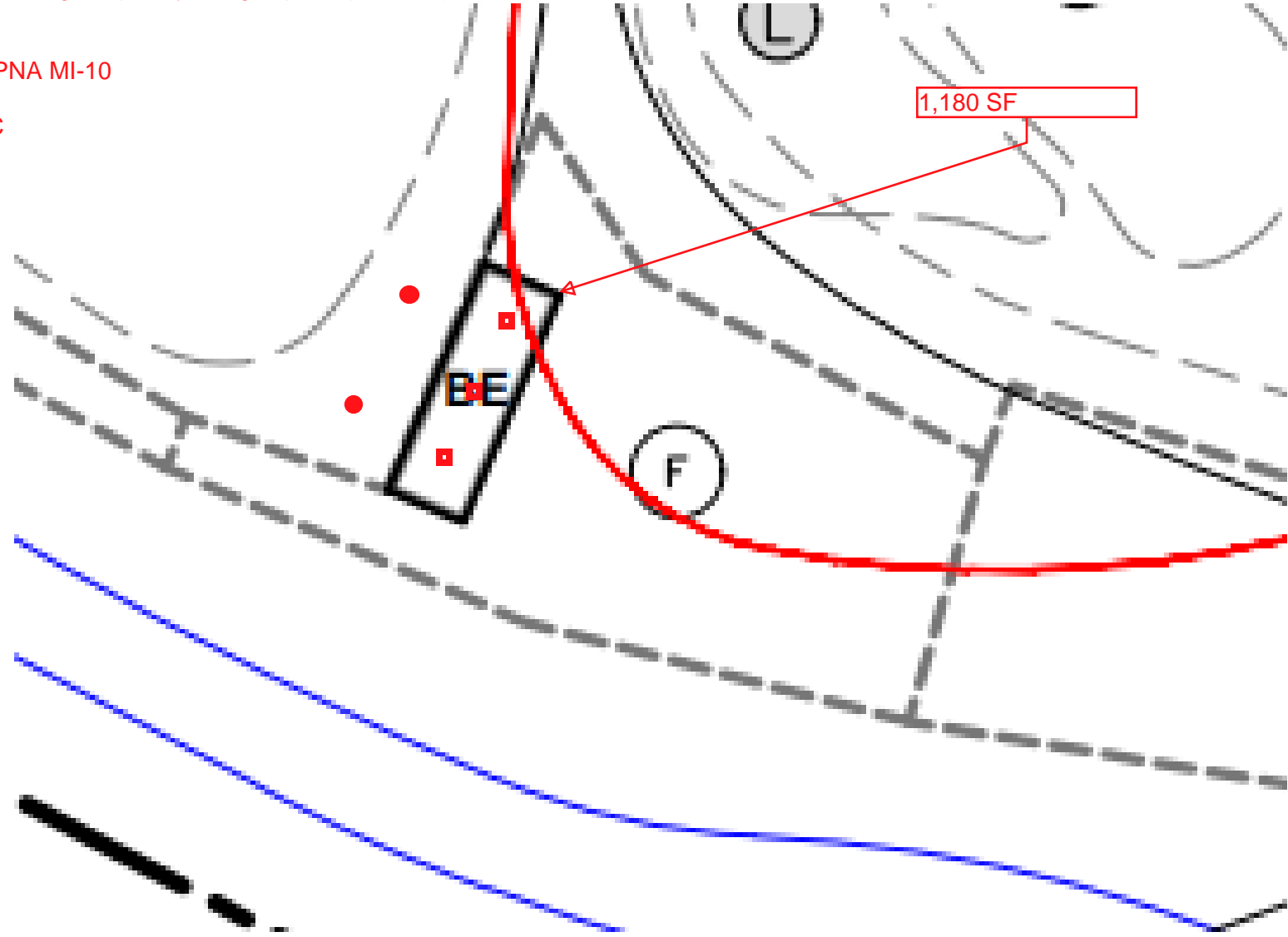


● soil boring (SB)

■ soil boring/temporary soil gas point (SB/TSG)

5 SB: VOC PNA MI-10

3 TSG: VOC



**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 28, 2022

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

	Ref No.	For	Amount
CDM Smith Michigan, Inc	TBP	Invoice # 61- Engineering Admin - 05/01/22 - 05/28/22 - Proj 1-2181	\$ 3,828.97
Dickinson Wright PLLC	TBP	Invoice # 1691410 - Legal Services - 04/30/22 - Proj #1-2181	5,253.50
		<b>Total for Project # 1-2181</b>	<b>\$ 9,082.47</b>



**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 28, 2022

**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 18, 2022 to June 22, 2022.

Payable To	Ref No.	For	Amount
Dickinson Wright PLLC	V # SINV00108672	Invoice # 1691424 - Legal Services - 04/30/2022	3,426.37
Atlas Copco Compressors LLC	TBP	Invoice # 1122059840 - Material and Supplies	1,339.65
PVS Technologies Inc	V # SINV00108710	Invoice # 310014 - Chemical Treatment	3,558.24
PVS Technologies Inc	V # SINV00108712	Invoice # 311343 - Chemical Treatment	2,747.36
PVS Technologies Inc	V # SINV00108714	Invoice # 311344 - Chemical Treatment	5,890.08
PVS Technologies Inc	TBP	Invoice # 311993 - Chemical Treatment	2,416.96
PVS Technologies Inc	TBP	Invoice # 311994 - Chemical Treatment	4,051.04
PVS Technologies Inc	TBP	Invoice # 313278 - Chemical Treatment	4,726.40
PVS Technologies Inc	TBP	Invoice # 313279 - Chemical Treatment	2,224.32
PVS Nolwood Chemicals Inc	V # SINV00104177	Invoice # 753366 - Chemical Treatment	965.02
PVS Nolwood Chemicals Inc	TBP	Invoice # 760578 - Chemical Treatment	9,818.27
PVS Nolwood Chemicals Inc	TBP	Invoice # 761656 - Chemical Treatment	9,943.88
Polydyne Inc	TBP	Invoice # 1637055 - Chemical Treatment	46,992.00
Polydyne Inc	TBP	Invoice # 1639520 - Chemical Treatment	22,770.00
Jones Chemicals Inc	V # SINV00109278	Invoice # 884479 - Chemical Treatment	654.70
Jones Chemicals Inc	V # SINV00109282	Invoice # 884480 - Chemical Treatment	632.44
Jones Chemicals Inc	V # SINV00109302	Invoice # 886096 - Chemical Treatment	5,685.30
Jones Chemicals Inc	TBP	Invoice # 887099 - Chemical Treatment	3,172.20
Jones Chemicals Inc	TBP	Invoice # 888015 - Chemical Treatment	5,698.58
Biotech Agronomics Inc	TBP	Invoice # 3110 - Land Application	191,409.65
Cambi Inc	V # SINV00108659	Invoice # 609810-SP-012 - Material and Supplies	13,161.24
W.W. Williams	TBP	Invoice # 056W13357.02 - Contracted Services	6,861.03
Eurofins TestAmerican, Michigan	V # SINV00104144	Invoice # 19000050617 - Laboratory Fees	1,294.60
Kennedy Industries	TBP	Invoice # 631604 - Material and Supplies	1,072.00
MacAllister / Michigan CAT	TBP	Invoice # R86460403101 - Equipment Rental	1,090.00
Primodel US Incorporated	TBP	Invoice # 2022-0135 - Engineering Services	1,837.50
Rotor Electric Company of Michigan LLC	V # SINV00108717	Invoice # 12518 - Contracted Services	2,796.59
Weingartz	TBP	Invoice # 10770322-00 - Material and Supplies	1,019.11
Orion Marketing Group LLC	V # SINV00108364	Invoice # 384235 - Uniforms	1,497.50
Pro-Seal Service Group	TBP	Invoice # 221786 - Contracted Services	1,378.75
D3W Industrials	V # SINV00108965	Invoice # 3330 - Material and Supplies	5,775.00
D3W Industrials	TBP	Invoice # 3352 - Material and Supplies	5,775.00
D3W Industrials	TBP	Invoice # 3366 - Material and Supplies	5,775.00
CDM Smith Inc	TBP	Invoice # 90153125 - Contracted Services	8,792.23
Waste Management	TBP	Invoice # 8612110-1714-5 - Garbage & Rubbish Disposal	1,391.62
Waste Management	TBP	Invoice # 8612109-1714-7 - Garbage & Rubbish Disposal	1,566.38
CleanNet of Greater Michigan, Inc	V # SINV00108962	Invoice # DET0099867 - Contracted Services - May	1,601.38
CleanNet of Greater Michigan, Inc	TBP	Invoice # DET0100263 - Contracted Services - June	1,601.38
<b>Subtotal</b>			<b>\$ 392,408.77</b>
Fishbeck, Thompson, Carr & Huber Inc	TBP	Invoice # 411526 - Engineering Services - 05/13/22 - Proj #1-3042	\$ 1,331.50
Fishbeck, Thompson, Carr & Huber Inc	TBP	Invoice # 412407 - Engineering Services - 06/10/22 - Proj #1-3042	\$ 1,534.00
<b>Subtotal - Project 1-3042</b>			<b>\$ 2,865.50</b>
Fishbeck, Thompson, Carr & Huber Inc	TBP	Invoice # 411535 - Contracted Services - 5/13/22 - Proj # 1-3492	\$ 889.00
Fishbeck, Thompson, Carr & Huber Inc	TBP	Invoice # 412412 - Contracted Services - 6/10/22 - Proj # 1-3492	356.00
<b>Subtotal - Project 1-3492</b>			<b>\$ 1,245.00</b>

Hubbell Roth & Clark Inc	TBP	Invoice # 0196602 - Engineering Services - 04/16/22 - Proj #1-3679	\$	<u>2,552.34</u>
		<b>Subtotal - Project 1-3679</b>	<b>\$</b>	<b><u>2,552.34</u></b>
Jacobs Consultants, Inc	TBP	Invoice # C6A19600-04 - Contracted Services - Proj # 1-3662	\$	<u>6,045.94</u>
		<b>Subtotal - Project 1-3662</b>	<b>\$</b>	<b><u>6,045.94</u></b>
		<b>Total</b>	<b>\$</b>	<b><u>405,117.55</u></b>

## **6. George W. Kuhn Drain**

## **AGENDA**

### **DRAINAGE BOARD FOR THE GEORGE W. KUHN DRAIN**

June 28, 2022

1. Call meeting to order
2. Approve minutes of meeting of May 24, 2022
3. Public Comments
4. Present Memorandum from Raphael Chirolla, Financial Services Supervisor, dated June 28, 2022, requesting the Board approve the proposed revised operating budget and sewer charges for the rate year beginning July 1, 2022
5. Present Memorandum from Lesli Maes, Operations Engineer, dated June 28, 2022, requesting the Board approve the Retention Treatment Basin major maintenance and capital improvement projects listed above for the not-to-exceed amount of \$434,000
6. Present Memorandum from Carrie Cox, P.E. Chief Engineer, and Gary Nigro, P.E. Chief Engineer, dated June 28, 2022, requesting the Board to authorize the Chairman of the Board to sign the GLWA water model contract reopener with the negotiated maximum day and peak hour demand of 0.204 MGD
7. Present Memorandum from John Basch, Senior Attorney, dated June 28, 2022, requesting the Board to accept the transfer of four parcels associated with the Allen Branch of the Royal Oak Drain from the State of Michigan at no cost to the district and authorize the chairperson, on behalf of the district, to execute all appropriate documents to finalize ownership of the parcels.
8. Present Memorandum from George Nichols, P.E., Civil Engineer III, dated June 28, 2022, requesting the Board authorize staff to proceed with generating specifications and obtaining quote(s) for closed circuit television services and establish a 5-year capital improvement plan and authorize the allocation of \$610,000 from the Drainage District's Sewage Disposal Fund
9. Present Memorandum from George Nichols, P.E., Civil Engineer III, dated June 28, 2022, requesting the Board retain services from Hubbell, Roth, and Clark to proceed with establishing a 5-year Capital Improvement Plan for a not-to-exceed amount of \$45,300 and authorize the Chairperson to sign the proposal
10. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$112,279.80
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 24, 2022

A meeting of the Drainage Board for the George W. Kuhn 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 24<sup>th</sup> day of May 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

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

David Woodward, Chairperson of the Oakland County Board of Commissioners

ABSENT: None.

Minutes of the meeting held April 26, 2022, were presented for consideration. It was moved by Markham, 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 memorandum from Gary Nigro, P.E. Chief Engineer, dated May 24, 2022, requesting the Board award the engineering consulting services for the Tributary System Enhancements Program – Phase 1, to Hubbell, Roth, & Clark, Inc. for a not-to-exceed amount of \$56,000 was presented. It was moved by Markham, supported by Woodward, to award the engineering consulting services for the Tributary System Enhancements Program – Phase 1, to Hubbell, Roth, & Clark, Inc. for a not-to-exceed amount of \$56,000 as presented.

ADOPTED: Yeas - 3  
Nays - 0

A memorandum from Lynne Seymour, P.E., Chief Engineer, dated May 24, 2022, requesting the Board to authorize the Chairperson to sign the resolution adopting the final State Revolving Fund project plan was presented. It was moved by Markham, supported by Woodward, to authorize the Chairperson to sign the resolution adopting the final State Revolving Fund project plan as presented.

ADOPTED: Yeas - 3  
Nays - 0

A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$43,156.78 (as attached) was presented. It was moved by

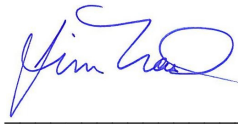
Markham, supported by Woodward, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$43,156.78.

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.



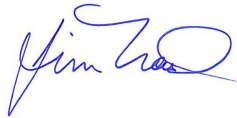
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Jim Nash, Chairperson

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 for the George W. Kuhn Drain, Oakland County, Michigan, held on the 24<sup>th</sup> day of May 2022, 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 George W. Kuhn Drain Drainage District.



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Jim Nash, Chairperson

Dated: May 24, 2022

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

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

**FROM:** Raphael Chirolla, Financial Services Supervisor

**SUBJECT:** FY 2022-2023 Revised Rate Recommendation

**DATE:** June 28, 2022

The purpose of this memorandum is to communicate a revised recommendation to the Board of the George W. Kuhn Drain Drainage District (GWK) detailing the proposed monthly charges to our customer communities based on approved Great Lakes Water Authority (GLWA) monthly charges for its fiscal 2022-23 rate year.

On June 2, 2022, GLWA approved the removal of the fiscal year 2023 Highland Park bad debt charges from the revenue requirements of the wholesale sewer customers. Attached are the revised monthly charges for services that will be billed starting July 2022.

Because of increases in operating expenses, there is an overall 2.4% increase from the previous year for combined sewage and stormwater charges. Please refer to the attached Schedule of Rates and Charges for a list of charges for each community. Detailed worksheets, including a Financial Summary, Monthly Charge Schedule, and Share and Monthly Charge Comparison, are attached.

**Recommended Action: Approve the revised rates and charges for the rate year beginning July 1, 2022, as presented.**



FY 2023 Suburban Wholesale Sewer Service Charge Schedule Calculation \*  
**Oakland GWK**

<b>MODIFIED 6/2/2022 EFFECTIVE JULY 1, 2022 FOR ALL BILLS ISSUED ON OR AFTER AUGUST 1, 2022</b>		<i>2/23/22</i>	<i>6/2/22</i>	<i>Effective 7/1/22</i>
		Originally	GLWA	Final
		Approved	Board	Modified
		<u>Charges</u>	<u>Modifications</u>	<u>Charges</u>
		\$	\$	\$
	<b><u>FY 2023 Revenue Requirements</u></b>			
1	Wholesale Revenue Requirement	45,441,700		45,441,700
2	Detroit Ownership Adjustment	936,300		936,300
3	Highland Park Bad Debt Adjustment	920,100	(920,100)	0
4	Total Amount Required from Charges	47,298,100	(920,100)	46,378,000
	<b><u>FY 2023 Service Charge Schedule</u></b>			
5	Fixed Monthly Charge - \$/month	3,941,500	(76,700)	<b>3,864,800</b>

\* The charges in this document reflect the action taken by the Great Lakes Water Authority Board on June 2, 2022 following their review, which included a public hearing on the FY 2023 Financial Plan and service charge schedules for the System on February 23, 2022 and additional deliberations.

**Great Lakes Water Authority**  
**Approved FY 2023 Sewage Disposal System**  
**Industrial Specific Retail Charges**  
*Effective Date: July 1, 2022*

<b>Industrial Waste Control Charges</b>		
<u>Meter Size</u> <i>inches</i>	<u>Full Charge</u> <i>\$/mo</i>	<u>Admin Only Charge</u> <i>\$/mo</i>
5/8	3.58	0.90
3/4	5.37	1.34
1	8.95	2.24
1-1/2	19.69	4.92
2	28.64	7.16
3	51.91	12.98
4	71.60	17.90
6	107.40	26.85
8	179.00	44.75
10	250.60	62.65
12	286.40	71.60
14	358.00	89.50
16	429.60	107.40
18	501.20	125.30
20	572.80	143.20
24	644.40	161.10
30	716.00	179.00
36	787.60	196.90
48	859.20	214.80

<b>Pollutant Surcharges</b>	
<u>Pollutant</u>	<u>Charge</u> <i>\$/lb</i>
BIOCHEMICAL OXYGEN DEMAND (BOD) for concentrations > 275 mg/l	<b>0.351</b>
TOTAL SUSPENDED SOLIDS (TSS) for concentrations > 350 mg/l	<b>0.482</b>
PHOSPHORUS (P) for concentrations > 12 mg/l	<b>6.448</b>
FATS, OIL AND GREASE (FOG) for concentrations > 100 mg/l	<b>0.112</b>
SEPTAGE DISPOSAL FEE Per 500 gallons of disposal	<b>36.00</b>

**George W. Kuhn Sewage and Twelve Towns**  
58510 and 58530  
**Financial Summary**

	2021 Actual	2022 Budget	2023 Forecast	Inc / (Dec)	% Variance
<b><u>Operating Revenues</u></b>					
Operating Rate Revenue	\$ 24,156,140.30	\$ 23,341,970.00	\$ 23,928,540.00	\$ 586,570.00	2.5%
Operating Non-Rate Revenue	4,785,570.03	139,110.00	129,750.00	(9,360.00)	-6.7%
Operating Revenues	<u>\$ 28,941,710.33</u>	<u>\$ 23,481,080.00</u>	<u>\$ 24,058,290.00</u>	<u>\$ 577,210.00</u>	<u>2.5%</u>
<b><u>Operating Expenses</u></b>					
Sewage Treatment	\$ 21,889,821.00	\$ 21,355,800.00	\$ 21,843,850.00	\$ 488,050.00	2.3%
Sewer System Maintenance	237,991.56	288,540.00	257,690.00	(30,850.00)	-10.7%
Sewer System Engineering	100,387.82	79,190.00	108,350.00	29,160.00	36.8%
Water Purchases	-	-	-	-	
Water Maintenance Unit	-	-	-	-	
Water Systems Engineering	-	-	-	-	
Septage Unloading Facility	-	-	-	-	
Pump Maintenance Unit	15,569.26	14,120.00	14,800.00	680.00	4.8%
Systems Control Unit	189,189.66	167,590.00	191,920.00	24,330.00	14.5%
Plan Review and Permitting	106,423.72	80,620.00	95,460.00	14,840.00	18.4%
Inspection	6,660.68	9,820.00	8,960.00	(860.00)	-8.8%
IPP	-	-	-	-	
Laboratory	-	-	-	-	
Mapping Unit	15,336.67	13,690.00	15,090.00	1,400.00	10.2%
Miss Dig	1,765.35	2,390.00	2,320.00	(70.00)	-2.9%
Billing Services Unit	-	-	-	-	
General and Administrative	1,440,514.80	1,469,320.00	1,519,850.00	50,530.00	3.4%
Total Operating Expenses	<u>24,003,660.52</u>	<u>23,481,080.00</u>	<u>24,058,290.00</u>	<u>577,210.00</u>	<u>2.5%</u>
Net Income	<u>\$ 4,938,049.81</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	
Depreciation	(53,144.98)	(42,990.00)	(53,150.00)	(10,160.00)	23.6%
<b><u>Reserves</u></b>					
Non-Operating Revenue	\$ 500,000.07	\$ 500,000.00	\$ 500,000.00	\$ -	0.0%
Non-Operating Expense	-	-	-	-	
Major Maintenance Reserve Revenue	689,590.74	689,590.00	710,280.00	20,690.00	3.0%
Major Maintenance Reserve Expense	(427,050.63)	(1,273,310.00)	(1,190,260.00)	83,050.00	-6.5%
Emergency Reserve Revenue	99,999.93	100,000.00	100,000.00	-	0.0%
Emergency Reserve Expense	-	-	-	-	
Capital Reserve Revenue	1,350,000.81	1,350,000.00	1,390,500.00	40,500.00	3.0%
Capital Reserve Expense	(98,820.13)	(1,130,000.00)	(1,060,000.00)	70,000.00	-6.2%
Change in Net Assets	<u>\$ 6,998,625.62</u>	<u>\$ 193,290.00</u>	<u>\$ 397,370.00</u>	<u>\$ 204,080.00</u>	<u>105.6%</u>
<b><u>Rate Revenue</u></b>					
Revenue Requirements:					
Operating Expense	\$ 24,003,660.52	\$ 23,481,080.00	\$ 24,058,290.00	\$ 577,210.00	2.5%
Non-Operating	500,000.07	500,000.00	500,000.00	-	0.0%
Major Maintenance	689,590.74	689,590.00	710,280.00	20,690.00	3.0%
Emergency Maintenance	99,999.93	100,000.00	100,000.00	-	0.0%
Capital	1,350,000.81	1,350,000.00	1,390,500.00	40,500.00	3.0%
Total Revenue Requirements	<u>\$ 26,643,252.07</u>	<u>\$ 26,120,670.00</u>	<u>\$ 26,759,070.00</u>	<u>\$ 638,400.00</u>	<u>2.4%</u>
Non-Rate Revenue	<u>\$ (4,785,570.03)</u>	<u>\$ (139,110.00)</u>	<u>\$ (129,750.00)</u>	<u>\$ 9,360.00</u>	<u>-6.7%</u>
Rate Required Revenue	<u>\$ 21,857,682.04</u>	<u>\$ 25,981,560.00</u>	<u>\$ 26,629,320.00</u>	<u>\$ 647,760.00</u>	<u>2.5%</u>

**George W. Kuhn Pollution Control**  
58520  
**Financial Summary**

	2021 Actual	2022 Budget	2023 Forecast	Inc / (Dec)	% Variance
<b><u>Operating Revenues</u></b>					
Operating Rate Revenue	\$ 26,682,175.05	\$ 27,479,020.00	\$ 28,124,970.00	\$ 645,950.00	2.4%
Operating Non-Rate Revenue	260,621.81	647,340.00	533,030.00	(114,310.00)	-17.7%
Operating Revenues	<u>\$ 26,942,796.86</u>	<u>\$ 28,126,360.00</u>	<u>\$ 28,658,000.00</u>	<u>\$ 531,640.00</u>	<u>1.9%</u>
<b><u>Operating Expenses</u></b>					
Sewage Treatment	\$ 28,540,528.87	\$ 24,558,040.00	\$ 24,622,190.00	\$ 64,150.00	0.3%
Sewer System Maintenance	338,972.10	341,180.00	322,690.00	(18,490.00)	-5.4%
Sewer System Engineering	734,156.57	311,760.00	768,020.00	456,260.00	146.3%
Water Purchases	-	-	-	-	
Water Maintenance Unit	-	-	-	-	
Water Systems Engineering	-	-	-	-	
Septage Unloading Facility	-	-	-	-	
Pump Maintenance Unit	1,588,366.93	1,637,360.00	1,643,160.00	5,800.00	0.4%
Systems Control Unit	62,578.63	107,990.00	65,140.00	(42,850.00)	-39.7%
Plan Review and Permitting	-	-	-	-	
Inspection	-	-	-	-	
IPP	-	-	-	-	
Laboratory	10,481.61	13,310.00	10,880.00	(2,430.00)	-18.3%
Mapping Unit	3,996.28	810.00	1,950.00	1,140.00	140.7%
Miss Dig	-	-	-	-	
Billing Services Unit	-	-	-	-	
General and Administrative	1,115,580.62	1,155,910.00	1,223,970.00	68,060.00	5.9%
Total Operating Expenses	<u>32,394,661.61</u>	<u>28,126,360.00</u>	<u>28,658,000.00</u>	<u>531,640.00</u>	<u>1.9%</u>
Net Income	<u>\$ (5,451,864.75)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	
Depreciation	(69,553.46)	(67,730.00)	(66,980.00)	750.00	-1.1%
<b><u>Reserves</u></b>					
Non-Operating Revenue	\$ 536,531.84	\$ -	\$ -	\$ -	
Non-Operating Expense	(68,932.38)	-	-	-	
Major Maintenance Reserve Revenue	308,999.76	309,000.00	318,270.00	9,270.00	3.0%
Major Maintenance Reserve Expense	(302,620.96)	(431,020.00)	(744,520.00)	(313,500.00)	72.7%
Emergency Reserve Revenue	50,000.52	50,000.00	50,000.00	-	0.0%
Emergency Reserve Expense	-	-	-	-	
Capital Reserve Revenue	530,450.34	530,450.00	546,360.00	15,910.00	3.0%
Capital Reserve Expense	(1,166,448.00)	(982,000.00)	(1,135,000.00)	(153,000.00)	15.6%
Change in Net Assets	<u>\$ (5,633,437.09)</u>	<u>\$ (591,300.00)</u>	<u>\$ (1,031,870.00)</u>	<u>\$ (440,570.00)</u>	<u>74.5%</u>
<b><u>Rate Revenue</u></b>					
Revenue Requirements:					
Operating Expense	\$ 32,394,661.61	\$ 28,126,360.00	\$ 28,658,000.00	\$ 531,640.00	1.9%
Non-Operating	536,531.84	-	-	-	
Major Maintenance	308,999.76	309,000.00	318,270.00	9,270.00	3.0%
Emergency Maintenance	50,000.52	50,000.00	50,000.00	-	0.0%
Capital	530,450.34	530,450.00	546,360.00	15,910.00	3.0%
Total Revenue Requirements	<u>\$ 33,820,644.07</u>	<u>\$ 29,015,810.00</u>	<u>\$ 29,572,630.00</u>	<u>\$ 556,820.00</u>	<u>1.9%</u>
Non-Rate Revenue	<u>\$ (797,153.65)</u>	<u>\$ (647,340.00)</u>	<u>\$ (533,030.00)</u>	<u>\$ 114,310.00</u>	<u>-17.7%</u>
Rate Required Revenue	<u>\$ 33,023,490.42</u>	<u>\$ 28,368,470.00</u>	<u>\$ 29,039,600.00</u>	<u>\$ 671,130.00</u>	<u>2.4%</u>

Monthly Charge Breakdown

**SEWAGE CHARGE**

Flat Rate Sewage Charge	<b>Effective July 1, 2022</b>	
	<b><u>Annual Charge</u></b>	
GLWA Purchased Expense	\$	21,843,850.00
OCWRC Operating Expense		2,214,440.00
Non-Operating		500,000.00
Major Maintenance Reserve		710,280.00
Emergency Maintenance Reserve		100,000.00
Capital Improvement Reserve		1,390,500.00
Less: Misc. Revenue		<u>(129,750.00)</u>
Total:	\$	26,629,320.00

	<b>Effective July 1, 2022</b>	
	<b><u>Annual Charge</u></b>	<b><u>Monthly Charge</u></b>
City of Berkley	\$ 1,099,257	\$ 91,604.74
Village of Beverly Hills	72,964	6,080.34
City of Birmingham	815,123	67,926.92
City of Clawson	808,466	67,372.17
City of Ferndale	1,504,557	125,379.76
City of Hazel Park	1,085,678	90,473.17
City of Huntington Woods	503,294	41,941.17
City of Madison Heights	2,459,484	204,957.00
City of Oak Park	2,033,947	169,495.58
City of Pleasant Ridge	236,468	19,705.67
City of Royal Oak	5,029,215	419,101.25
Royal Oak Twp	241,794	20,149.51
City of Southfield	1,729,309	144,109.09
City of Troy	8,680,092	723,340.99
Detroit Zoological Park	292,124	24,343.67
County of Oakland	-	-
Rackham Golf Course	37,548	3,129.01
State Of Michigan	-	-
Total	\$ 26,629,320	\$ 2,219,110.04

**STORM CHARGE**

<b>Flat Rate Storm Charge</b>	<b>Effective July 1, 2022</b>	
	<b><u>Annual Charge</u></b>	
GLWA Purchased Expense	\$	24,622,190.00
OCWRC Operating Expense		4,035,810.00
Non-Operating		-
Major Maintenance		318,270.00
Emergency Maintenance		50,000.00
Capital Improvement		546,360.00
Less: Interest Income		<u>(533,030.00)</u>
Total:	\$	29,039,600.00

	<b>Effective July, 1 2022</b>	
	<b><u>Annual Charge</u></b>	<b><u>Monthly Charge</u></b>
City of Berkley	\$ 1,884,525	\$ 157,043.76
Village of Beverly Hills	243,033	20,252.75
City of Birmingham	1,418,207	118,183.92
City of Clawson	1,720,944	143,412.01
City of Ferndale	2,987,739	248,978.25
City of Hazel Park	654,960	54,580.01
City of Huntington Woods	716,435	59,702.92
City of Madison Heights	1,899,480	158,289.99
City of Oak Park	3,960,508	330,042.33
City of Pleasant Ridge	388,841	32,403.42
City of Royal Oak	8,625,574	718,797.84
Royal Oak Twp	370,982	30,915.17
City of Southfield	2,240,579	186,714.92
City of Troy	720,153	60,012.74
Detroit Zoological Park	97,689	8,140.76
County of Oakland	443,550	36,962.51
Rackham Golf Course	55,552	4,629.34
State Of Michigan	610,849	50,904.09
Total	\$ 29,039,600	\$ 2,419,966.73

**SEWAGE CHARGE**

	FY 2021-22 (July - June)		FY 2022-23 (July - June)		% Change Mthly Charge
	Share % of System	Monthly Charge	Share % of System	Monthly Charge	
City of Berkley	4.164%	\$ 90,156.09	4.128%	\$ 91,604.74	1.6%
Village of Beverly Hills	0.273%	5,910.84	0.274%	6,080.34	2.9%
City of Birmingham	3.042%	65,863.17	3.061%	67,926.92	3.1%
City of Clawson	3.039%	65,798.42	3.036%	67,372.17	2.4%
City of Ferndale	5.536%	119,861.58	5.650%	125,379.76	4.6%
City of Hazel Park	4.067%	88,055.92	4.077%	90,473.17	2.7%
City of Huntington Woods	1.878%	40,661.16	1.890%	41,941.17	3.1%
City of Madison Heights	9.678%	209,541.33	9.236%	204,957.00	-2.2%
City of Oak Park	7.705%	166,823.25	7.638%	169,495.58	1.6%
City of Pleasant Ridge	0.889%	19,248.00	0.888%	19,705.67	2.4%
City of Royal Oak	19.032%	412,067.59	18.886%	419,101.25	1.7%
Royal Oak Twp	0.942%	20,395.58	0.908%	20,149.51	-1.2%
City of Southfield	6.532%	141,426.34	6.494%	144,109.09	1.9%
City of Troy	31.992%	692,668.50	32.596%	723,340.99	4.4%
Detroit Zoological Park	1.077%	23,318.50	1.097%	24,343.67	4.4%
County of Oakland	-	-	-	-	-
Rackham Golf Course	0.154%	3,334.34	0.141%	3,129.01	-6.2%
State Of Michigan	-	-	-	-	-
<b>Total</b>	<b>100.00%</b>	<b>\$ 2,165,130.61</b>	<b>100.00%</b>	<b>\$ 2,219,110.04</b>	<b>2.5%</b>

Charges have been rounded

**STORM CHARGE**

	FY 2021-22 (July - June)		FY 2022-23 (July - June)		% Change Mthly Charge
	Share % of System	Monthly Charge	Share % of System	Monthly Charge	
City of Berkley	6.4895%	\$ 153,414.42	6.4895%	\$ 157,043.76	2.4%
Village of Beverly Hills	0.8369%	19,784.59	0.8369%	20,252.75	2.4%
City of Birmingham	4.8837%	115,452.66	4.8837%	118,183.92	2.4%
City of Clawson	5.9262%	140,097.76	5.9262%	143,412.01	2.4%
City of Ferndale	10.2885%	243,224.09	10.2885%	248,978.25	2.4%
City of Hazel Park	2.2554%	53,318.58	2.2554%	54,580.01	2.4%
City of Huntington Woods	2.4671%	58,323.16	2.4671%	59,702.92	2.4%
City of Madison Heights	6.5410%	154,631.83	6.5410%	158,289.99	2.4%
City of Oak Park	13.6383%	322,414.67	13.6383%	330,042.33	2.4%
City of Pleasant Ridge	1.3390%	31,654.58	1.3390%	32,403.42	2.4%
City of Royal Oak	29.7028%	702,185.91	29.7028%	718,797.84	2.4%
Royal Oak Twp	1.2775%	30,200.59	1.2775%	30,915.17	2.4%
City of Southfield	7.7156%	182,399.75	7.7156%	186,714.92	2.4%
City of Troy	2.4799%	58,625.83	2.4799%	60,012.74	2.4%
Detroit Zoological Park	0.3364%	7,952.50	0.3364%	8,140.76	2.4%
County of Oakland	1.5274%	36,108.42	1.5274%	36,962.51	2.4%
Rackham Golf Course	0.1913%	4,522.50	0.1913%	4,629.34	2.4%
State Of Michigan	2.1035%	49,727.59	2.1035%	50,904.09	2.4%
Total	100.00%	\$ 2,364,039.43	100.00%	\$ 2,419,966.73	2.4%

Charges have been rounded



**OAKLAND COUNTY WATER RESOURCES COMMISSIONER  
GEORGE W. KUHN DRAINAGE DISTRICT  
SCHEDULE OF RATES AND CHARGES, EFFECTIVE JULY 1, 2022**

**1. Sewage Disposal Charge**

<b><u>Municipality</u></b>	<b>Effective July 1, 2022 <u>Monthly</u></b>
City of Berkley	\$ 91,604.74
Village of Beverly Hills	6,080.34
City of Birmingham	67,926.92
City of Clawson	67,372.17
City of Ferndale	125,379.76
City of Hazel Park	90,473.17
City of Huntington Woods	41,941.17
City of Madison Heights	204,957.00
City of Oak Park	169,495.58
City of Pleasant Ridge	19,705.67
City of Royal Oak	419,101.25
Royal Oak Twp	20,149.51
City of Southfield	144,109.09
City of Troy	723,340.99
Detroit Zoological Park	24,343.67
County of Oakland	-
Rackham Golf Course	3,129.01
State Of Michigan	-
Total:	<u><u>\$ 2,219,110.04</u></u>

Where communities have individual sewer customers with metered sewage, permitted and approved by the Oakland County Water Resources Commissioner (WRC), then each community shall also report, within ten days following the end of each month, the total metered sewage within the community, in lieu of water consumption.

George W. Kuhn Drainage District  
 Schedule of Rates and Charges

**2. Pollutant Surcharge - APPROVED BY GLWA**

A Pollutant Surcharge shall be levied against industrial and commercial customers contributing sewage to the system with concentrations of pollutants exceeding the levels described as follows:

- A. 275 milligrams per liter (mg/l) of Biochemical Oxygen Demand (BOD)
- B. 350 milligrams per liter (mg/l) of Total Suspended Solids (TSS)
- C. 12 milligrams per liter (mg/l) of Phosphorus (P)
- D. 100 milligrams per liter (mg/l) of Fats, Oils & Grease (FOG)

<b><u>Pollutant</u></b>	<b>Effective July 1, 2022 Total Charge Per lb. of Excess Pollutants</b>
Biochemical Oxygen Demand (BOD)	\$ 0.351
Total Suspended Solids (TSS)	0.482
Phosphorus (PHOS)	6.448
Fats, Oils & Grease (FOG)	0.112

It is assumed that normal residential customers do not contribute sewage with concentration of pollutants exceeding the above levels, therefore, the Pollutant Surcharge shall not apply to residential customers. Further, restaurants shall also be exempt from Pollutant Surcharge per the federal court "Second Interim Order", dated July 10, 1981.

**3. Industrial Waste Control Charge - APPROVED BY GLWA**

Based on the reported number of water meter sizes for non-residential users of the System, each community shall pay a monthly Industrial Waste Control Charge (IWC) in accordance with the following schedule:

<b><u>Non-Residential Meter Size in Inches</u></b>	<b>Effective July 1, 2022 \$/Month</b>
5/8	\$ 3.58
3/4	5.37
1	8.95
1 1/2	19.69
2	28.64
3	51.91
4	71.60
6	107.40
8	179.00
10	250.60
12	286.40
14	358.00
16	429.60
18	501.20
20	572.80
24	644.40
30	716.00
36	787.60
48	859.20

Non-residential users shall be defined as all users other than those in single family houses, apartment buildings, condominiums, town houses, mobile homes, schools, churches and municipal buildings.

George W. Kuhn Drainage District  
 Schedule of Rates and Charges

4. **Flat Rate Storm Charge**

<b><u>Municipality</u></b>	<b>Effective July 1, 2022</b>
	<b><u>Monthly</u></b>
City of Berkley	\$ 157,043.76
Village of Beverly Hills	20,252.75
City of Birmingham	118,183.92
City of Clawson	143,412.01
City of Ferndale	248,978.25
City of Hazel Park	54,580.01
City of Huntington Woods	59,702.92
City of Madison Heights	158,289.99
City of Oak Park	330,042.33
City of Pleasant Ridge	32,403.42
City of Royal Oak	718,797.84
Royal Oak Twp	30,915.17
City of Southfield	186,714.92
City of Troy	60,012.74
Detroit Zoological Park	8,140.76
County of Oakland	36,962.51
Rackham Golf Course	4,629.34
State Of Michigan	50,904.09
Total:	<u><u>\$ 2,419,966.73</u></u>

George W. Kuhn Drainage District  
Schedule of Rates and Charges

**5. Total Sewer and Storm Water Charge**

The following schedule identifies the total of the sewer charge and the storm water charge. The combined amount will be billed monthly to each customer:

**Combined Monthly Sewer and Storm Charges**


<b><u>Municipality</u></b>	<b>Effective July 1, 2022 <u>Monthly</u></b>
City of Berkley	\$ 248,648.50
Village of Beverly Hills	26,333.09
City of Birmingham	186,110.84
City of Clawson	210,784.18
City of Ferndale	374,358.01
City of Hazel Park	145,053.18
City of Huntington Woods	101,644.09
City of Madison Heights	363,246.99
City of Oak Park	499,537.91
City of Pleasant Ridge	52,109.09
City of Royal Oak	1,137,899.09
Royal Oak Twp	51,064.68
City of Southfield	330,824.01
City of Troy	783,353.73
Detroit Zoological Park	32,484.43
County of Oakland	36,962.51
Rackham Golf Course	7,758.35
State Of Michigan	50,904.09
Total:	<u><u>\$ 4,639,076.77</u></u>

# GEORGE W. KUHN DRAINAGE DISTRICT

Effective Date: July 1, 2022

Created by: \_\_\_\_\_  
Engineering Technician

Approved by: Raphael Chirolla Digitally signed by Raphael Chirolla  
Date: 2022.06.14 14:08:31 -04'00'

Approved by:  \_\_\_\_\_  
Financial Supervisor

Approved by: \_\_\_\_\_  
Manager

**NOTE:**  
Approvals on this form represent authorization from WRC to allow Fiscal Services to invoice communities AND to pay invoices from the wholesale provider as detailed below. Any deviation in the amounts must be reviewed and approved by WRC.

**1. Sewage Disposal Standard Fixed Charge (Billed Monthly)**

Fund #	58510	58510	58510	58510	58530	
Account #	632086	632086	632086	632086	632086	
Program #	149030	149666	149662	149667	149999	Total
City of Berkley	\$ 82,314.16	\$ 344.00	\$ 2,443.33	\$ 4,783.25	\$ 1,720.00	\$ 91,604.74
Village of Beverly Hills	5,463.67	22.83	162.17	317.50	114.17	6,080.34
City of Birmingham	61,037.67	255.08	1,811.83	3,546.92	1,275.42	67,926.92
City of Clawson	60,539.17	253.00	1,797.00	3,518.00	1,265.00	67,372.17
City of Ferndale	112,663.59	470.83	3,344.25	6,546.92	2,354.17	125,379.76
City of Hazel Park	81,297.25	339.75	2,413.17	4,724.25	1,698.75	90,473.17
City of Huntington Woods	37,687.50	157.50	1,118.67	2,190.00	787.50	41,941.17
City of Madison Heights	184,170.00	769.67	5,466.75	10,702.25	3,848.33	204,957.00
City of Oak Park	152,305.16	636.50	4,520.92	8,850.50	3,182.50	169,495.58
City of Pleasant Ridge	17,707.09	74.00	525.58	1,029.00	370.00	19,705.67
City of Royal Oak	376,595.41	1,573.83	11,178.67	21,884.17	7,869.17	419,101.25
Royal Oak Twp	18,105.92	75.67	537.42	1,052.17	378.33	20,149.51
City of Southfield	129,493.34	541.17	3,843.83	7,524.92	2,705.83	144,109.09
City of Troy	649,978.83	2,716.33	19,293.58	37,770.58	13,581.67	723,340.99
Detroit Zoological Park	21,874.67	91.42	649.33	1,271.17	457.08	24,343.67
County of Oakland	-	-	-	-	-	-
Rackham Golf Course	2,811.59	11.75	83.50	163.42	58.75	3,129.01
State Of Michigan	-	-	-	-	-	-
<b>Total</b>	<b>1,994,045.02</b>	<b>8,333.33</b>	<b>59,190.00</b>	<b>115,875.02</b>	<b>41,666.67</b>	<b>2,219,110.04</b>

**2. Storm Water Fixed Charge (Billed Monthly)**

Account #	631575	631575	631575	631575	631575	
Program #	149030	149666	149662	149667	149999	Total
City of Berkley	\$ 152,097.50	\$ 270.42	\$ 1,721.17	\$ 2,954.67	\$ -	\$ 157,043.76
Village of Beverly Hills	19,614.84	34.83	222.00	381.08	-	20,252.75
City of Birmingham	114,461.59	203.50	1,295.25	2,223.58	-	118,183.92
City of Clawson	138,895.17	246.92	1,571.75	2,698.17	-	143,412.01
City of Ferndale	241,136.50	428.67	2,728.75	4,684.33	-	248,978.25
City of Hazel Park	52,860.92	94.00	598.17	1,026.92	-	54,580.01
City of Huntington Woods	57,822.59	102.75	654.33	1,123.25	-	59,702.92
City of Madison Heights	153,304.50	272.58	1,734.83	2,978.08	-	158,289.99
City of Oak Park	319,647.33	568.25	3,617.25	6,209.50	-	330,042.33
City of Pleasant Ridge	31,382.75	55.83	355.17	609.67	-	32,403.42
City of Royal Oak	696,158.67	1,237.58	7,877.92	13,523.67	-	718,797.84
Royal Oak Twp	29,941.42	53.25	338.83	581.67	-	30,915.17
City of Southfield	180,834.17	321.50	2,046.33	3,512.92	-	186,714.92
City of Troy	58,122.58	103.33	657.75	1,129.08	-	60,012.74
Detroit Zoological Park	7,884.34	14.00	89.25	153.17	-	8,140.76
County of Oakland	35,798.34	63.67	405.08	695.42	-	36,962.51
Rackham Golf Course	4,483.59	7.92	50.75	87.08	-	4,629.34
State Of Michigan	49,300.75	87.67	557.92	957.75	-	50,904.09
<b>Total</b>	<b>\$ 2,343,747.55</b>	<b>\$ 4,166.67</b>	<b>\$ 26,522.50</b>	<b>\$ 45,530.01</b>	<b>\$ -</b>	<b>\$2,419,966.73</b>

**3. High Strength Industrial Net Surcharge**

Effective: July 1, 2022

Billed by GLWA (not handled by OCWRC Billing Services Unit)

<b>Pollutants</b>	<b>Per Pound of Excess Pollutants</b>
BOD	\$0.351
TSS	0.482
P	6.448
FOG	0.112

**4. Industrial Waste Control (IWC)**

Effective: July 1, 2022

Revenue Account # 630953  
 Program Number 149120  
 Program Name General & Administrative

<b>Meter Size</b>	<b>Monthly IWC Charge</b>
5/8"	\$ 3.58
3/4"	5.37
1"	8.95
1-1/2"	19.69
2"	28.64
3"	51.91
4"	71.60
6"	107.40
8"	179.00
10"	250.60
12"	286.40
14"	358.00
16"	429.60
18"	501.20

**5. Penalty Fee**

5% penalty if not paid within 30 days of the billing date. All delinquent balances remaining unpaid for one year or more are subject to an additional charge of 6% per year.

**6. GLWA Sewage Disposal Services (731724) Split**

<b>Fund</b>	<b>Percentage</b>
58510	47.10%
58520	52.90%

**7. Revision Log:**

<b>Date:</b>	<b>Description of Revision</b>	<b>Approval Signatures:</b>

**Distribution:**  
 Billing Services  
 Fiscal Services  
 Rates and Charges Book

**OAKLAND COUNTY  
WATER RESOURCES COMMISSIONER**

**MEMORANDUM**

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

**FROM: Lesli Maes, Operations Engineer**

**SUBJECT: GWK RTB Projects for Approval**

**DATE: June 28, 2022**

Recommendations for rehabilitation or replacement of assets within the George W. Kuhn Drainage District are continually being identified, evaluated and planned for by WRC staff including the asset management group, staff engineers and operations supervisors.

Below are major maintenance and capital improvement projects for the George W. Kuhn Retention Treatment Basin Facility that are proposed at this time.

**GWK RTB FY2022 Project Planning - PCF #58520**

<b>Project Name</b>	<b>Major Maintenance or Capital Improvement</b>	<b>Cost Estimate</b>
GWK Treatment Building Rehab Sluice Trough Bar Screen	PCF - MM	\$ 32,000
GWK Treatment Building Rehab and Relocate Flushing Water Auto Valve	PCF - MM	\$ 50,000
GWK Treatment Building Replace Sump Pumps 1 and 2	PCF - CIP	\$ 30,000
Stephenson Control Building Replace Generator and ATS	PCF - CIP	\$ 310,000
Dequindre PS Replace Sump Pumps 1 and 2	PCF - CIP	\$ 12,000
	<b>Total:</b>	\$ 434,000

This work was anticipated and budgeted for in the George W. Kuhn Reserves.

**Board Action Requested:**

**Approve the GWK Retention Treatment Basin major maintenance and capital improvement projects listed above for the not to exceed amount of \$434,000.**

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

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

**FROM:** Carrie Cox, P.E. –Chief Engineer  
Gary Nigro, P.E. –Chief Engineer

**SUBJECT:** Great Lake Water Authority Water Model Contract Reopener

**DATE:** June 28, 2022

Every four years the Great Lakes Water Authority (GLWA) reopens the water model contract to review pressures, meter pits, average day, maximum day and peak hour usage. The current cost allocation model for GLWA's water system puts significant expense on the maximum day and peak hour usage as this drives the sizing of capital improvements among other expenses. Since operations and demands change over time, GLWA reopens the water model contract every four years for this review.

The GLWA water model contract is strictly for the flushing system of the basin. Domestic water usage for the building is purchased from the City of Madison Heights. Due to the nature of the flushing system, water for flushing is used after large rain events and not during the GLWA maximum day and peak hour periods. Therefore, GLWA has negotiated a maximum day and peak hour contract rate with WRC staff to equal the four-year average flow rate of 0.204 MGD. This negotiation is predicated on WRC staff reviewing GLWA total water system pumpage through their Wholesale Automatic Meter Read (WAMR) website prior to any maintenance or non-storm related flushing activities. The Retention Treatment Basin Unit staff review WAMR prior to any flushing activity. This practice has been working well for the past several years.

**Recommended Actions:**

**Authorize the Chairman of the Board to sign the GLWA water model contract reopener with the negotiated maximum day and peak hour demand of 0.204 MGD.**



**AMENDMENT NO. 4 TO WATER SERVICE CONTRACT  
BETWEEN  
GREAT LAKES WATER AUTHORITY  
AND  
GEORGE W. KUHN DRAINAGE DISTRICT**

This Amendment No. 4 (“Amendment”) is made between the Great Lakes Water Authority, a municipal authority and public body corporate (“GLWA”), and the George W. Kuhn Drainage District, a municipal corporation (“Member Partner”). GLWA and Member Partner are collectively referred to as the “Parties”.

**RECITALS**

- A. GLWA leases, operates, and maintains the public water supply system owned by the City of Detroit (“System”); and
- B. On November 20, 2009, the Parties entered a Water Service Contract (“Contract”) reflecting the terms and conditions governing the delivery and purchase of potable water, as subsequently amended and assigned; and
- C. GLWA has determined that its charge methodology renders irrelevant the “minimum take or pay” terms of Section 5.06 of the Contract; and
- D. Article 15 of the Contract permits the Parties to amend the Contract by mutual agreement; and
- E. In consideration of the mutual undertakings of the Parties and for the benefit of the public, it is the mutual desire of the Parties to enter this Amendment to amend the Contract as set forth in detail in the following sections.

**ACCORDINGLY, THE PARTIES AGREE AS FOLLOWS:**

- 1. Section 5.06 of the Contract is deleted in its entirety.
- 2. Exhibit B of the Contract is amended by deleting in its entirety the existing Exhibit B and substituting the attached Exhibit B in its place.
- 3. Except for the provisions of the Contract specifically contained in this Amendment, all other terms, conditions, and covenants contained in the Contract shall remain in full force and effect and as set forth in the Contract.
- 4. This Amendment to the Contract shall be effective and binding upon the Parties when it is signed and acknowledged by the duly authorized representatives of both Parties and is approved by Member Partner’s governing body and the GLWA Board of Directors.

*(Signatures appear on next page)*

Accordingly, GLWA and Member Partner, by and through their duly authorized officers and representatives, have executed this Amendment.

**George W. Kuhn Drainage District:**

By: \_\_\_\_\_  
Jim Nash  
Oakland County Water Resources Commissioner, and  
Chairperson of the GWK Drainage Board

APPROVED BY  
GEO. W. KUHN DRAINAGE BOARD ON: \_\_\_\_\_  
Date

**Great Lakes Water Authority:**

By: \_\_\_\_\_  
Suzanne R. Coffey, P.E.  
Interim Chief Executive Officer

Dated: \_\_\_\_\_

APPROVED BY  
GLWA BOARD OF DIRECTORS ON: \_\_\_\_\_  
Date

APPROVED AS TO FORM BY  
GLWA GENERAL COUNSEL ON: \_\_\_\_\_  
Signature/Date

## EXHIBIT B

Projected Annual Volume and Minimum Annual Volume (Table 1)  
Pressure Range and Maximum Flow Rate (Table 2)  
Flow Split Assumptions (Table 3)  
Addresses for Notice (Table 4)

Table 1 and Table 2 set forth the agreed upon Projected Annual Volumes, Minimum Annual Volumes, Pressure Ranges and Maximum Flow Rates for the term of this Contract provided that figures in bold type face are immediately enforceable pursuant to the terms of Section 5.07 and italicized figures are contained for planning purposes only but will become effective absent the negotiated replacements anticipated in Section 5.07.

The approximate rate of flow by individual meter set forth in Table 3 is the assumption upon which the Pressure Range commitments established in Table 2 have been devised. Should Customer deviate from these assumptions at any meter(s), the Board may be unable to meet the stated Pressure Range commitments in this Contract or in the contract of another customer of the Board and Section 5.08 of this Contract may be invoked.

EXHIBIT B

Table 1  
 Projected Annual Volume and Minimum Annual Volume

Fiscal Year Ending June 30	Projected Annual Volume (Mcf)	Minimum Annual Volume (Mcf)
2010	<b>10,000</b>	<b>5,000</b>
2011	<b>10,000</b>	<b>5,000</b>
2012	<b>12,000</b>	<b>6,000</b>
2013	<b>12,000</b>	<b>6,000</b>
2014	<b>12,000</b>	<b>6,000</b>
2015	<b>7,200</b>	<b>3,600</b>
2016	<b>7,200</b>	<b>3,600</b>
2017	<b>7,200</b>	<b>3,600</b>
2018	<b>7,200</b>	<b>3,600</b>
2019	<b>7,200</b>	<b>3,600</b>
2020	<b>9,000</b>	<b>4,500</b>
2021	<b>9,000</b>	<b>4,500</b>
2022	<b>9,000</b>	<b>4,500</b>
2023	<b>9,000</b>	<b>4,500</b>
2024	<b>9,000</b>	<b>4,500</b>
2025	<b>9,000</b>	<b>4,500</b>
2026	<b>9,000</b>	<b>4,500</b>
2027	<b>9,000</b>	<b>4,500</b>
2028	<i>9,000</i>	<i>4,500</i>
2029	<i>9,000</i>	<i>4,500</i>
2030	<i>9,000</i>	<i>4,500</i>
2031	<i>9,000</i>	<i>4,500</i>
2032	<i>9,000</i>	<i>4,500</i>
2033	<i>9,000</i>	<i>4,500</i>
2034	<i>9,000</i>	<i>4,500</i>
2035	<i>9,000</i>	<i>4,500</i>
2036	<i>9,000</i>	<i>4,500</i>
2037	<i>9,000</i>	<i>4,500</i>
2038	<i>9,000</i>	<i>4,500</i>
2039	<i>9,000</i>	<i>4,500</i>

EXHIBIT B

Table 2  
Pressure Range and Maximum Flow Rate

Calendar Year (Reopener Schedule in bold type)	Pressure Range (psi) Meter OC-01		Maximum Flow Rate (mgd)	
	<u>Min</u>	<u>Max</u>	<u>Max Day</u>	<u>Peak Hour</u>
2009	<b>58</b>	<b>80</b>	<b>0.33</b>	<b>0.33</b>
2010	<b>58</b>	<b>80</b>	<b>0.33</b>	<b>0.33</b>
2011	<b>53</b>	<b>80</b>	<b>0.25</b>	<b>0.25</b>
2012	<b>53</b>	<b>80</b>	<b>0.25</b>	<b>0.25</b>
2013	<b>53</b>	<b>80</b>	<b>0.25</b>	<b>0.25</b>
2014	<b>58</b>	<b>80</b>	<b>0.148</b>	<b>0.148</b>
2015	<b>58</b>	<b>80</b>	<b>0.148</b>	<b>0.148</b>
2016	<b>58</b>	<b>80</b>	<b>0.148</b>	<b>0.148</b>
2017	<b>58</b>	<b>80</b>	<b>0.148</b>	<b>0.148</b>
<b>2018</b>	<b>58</b>	<b>80</b>	<b>0.148</b>	<b>0.148</b>
2019	<b>58</b>	<b>80</b>	<b>0.184</b>	<b>0.184</b>
2020	<b>58</b>	<b>80</b>	<b>0.184</b>	<b>0.184</b>
2021	<b>58</b>	<b>80</b>	<b>0.184</b>	<b>0.184</b>
<b>2022</b>	<b>58</b>	<b>80</b>	<b>0.184</b>	<b>0.184</b>
2023	<b>58</b>	<b>80</b>	<b>0.204</b>	<b>0.204</b>
2024	<b>58</b>	<b>80</b>	<b>0.204</b>	<b>0.204</b>
2025	<b>58</b>	<b>80</b>	<b>0.204</b>	<b>0.204</b>
<b>2026</b>	<b>58</b>	<b>80</b>	<b>0.204</b>	<b>0.204</b>
2027	58	80	0.204	0.204
2028	58	80	0.204	0.204
2029	58	80	0.204	0.204
<b>2030</b>	58	80	0.204	0.204
2031	58	80	0.204	0.204
2032	58	80	0.204	0.204
2033	58	80	0.204	0.204
<b>2034</b>	58	80	0.204	0.204
2035	58	80	0.204	0.204
2036	58	80	0.204	0.204
2037	58	80	0.204	0.204
<b>2038</b>	58	80	0.204	0.204

EXHIBIT B

Table 3  
Flow Split Assumptions

<b>Meter</b>	<b>Assumed Flow Split (2023-2026)</b>
OC-01	100%

Table 4  
Addresses for Notice

<b>If to the Board:</b>	<b>If to Customer:</b>
General Counsel Great Lakes Water Authority 735 Randolph, Suite 1901 Detroit, Michigan 48226	Oakland County Water Resources Commissioner Oakland County Water Resources Commissioner's Office One Public Works Drive Waterford, Michigan 48328-1901  Cc: RTB Chief Engineer

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

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

**FROM:** John Basch, Senior Attorney

**SUBJECT:** Property Transfer for a Portion of the Allen Branch of the Royal Oak Drain  
from the State of Michigan to the George W. Kuhn Drain Drainage District

**DATE:** June 28, 2022

The Michigan Department of Natural Resources has offered to transfer to the George W. Kuhn Drain Drainage District, four parcels of land owned by the state that are part of the Edgewood Park subdivision plat and identified on the plat as "Allen Drain." The intent of these parcels being shown on the subdivision plat is believed to be to reserve property for the operation and maintenance of the Allen Branch of the Royal Oak Drain. The transfer would be made at no cost to the district.

Initially, these four, 26-foot-wide platted strips of land were part of a 1925 Chapter 4 drain intended to serve a Royal Oak neighborhood situated between Woodward Avenue to the west, Washington Street to the east, Farnum Avenue to the north, and about a block from 11-Mile Road to the south. A map showing the precise location and a legal description of the parcels are attached.

Because this board is responsible for the operation and maintenance of this drain, acquiring ownership of these state-owned parcels is reasonable. Further, while the drainage district has easements over the Allen Branch of the Royal Oak Drain, many of these easements were granted before the Michigan Drain Code came into existence in 1956 and not discoverable in a customary title-search. Further, by assuming ownership of these parcels the drainage district will have greater control over the property's future use.

**Requested Action: Accept the above-mentioned transfer of four parcels associated with the Allen Branch of the Royal Oak Drain from the State of Michigan at no cost to the district and authorize the chairperson, on behalf of the district, to execute all appropriate documents to finalize ownership of the parcels.**

## Legal Description of the four parcels in Royal Oak currently owned by the State of Michigan

### **DNR PAR # 302834**

A part of the Allen Drain 26 ft wide as designated on the plat of Edgewood Park Subdivision of a part of the SW1/4 of the SE1/4 of Sec. 16 T 1 NR 11 E recorded in Liber 14 of Plats on Page 22, Oakland County, Michigan Records described as being that part of the said Allen Drain bounded on the S by the N line of Oakland Avenue on the W by the Ely line of Lot 119 of said Edgewood Park Subdivision on the N by the N line of said Lot 119 extended Ely and on the E by the Wly line of Lot 118 of said Edgewood Park Subdivision

### **DNR PAR # 302835**

A part of the Allen Drain 26 ft. wide as designated on the Plat of Edgewood Park Subdivision of part of the SW1/4 of the SE1/4 of Sec. 16, T1N,R11E, recorded in Liber 14 of Plats on Page 22, Oakland County, Michigan records, described as being that part of the said Allen Drain bounded on the W by the E'ly line of Lot 23 of said Edgewood Park Subdivision, on the S by the N'ly line of Lot 25 extended E'ly of said Edgewood Park Subdivision and on the E by the W'ly line of Lot 24 of said Edgewood Park Subdivision and the W line of North West Street

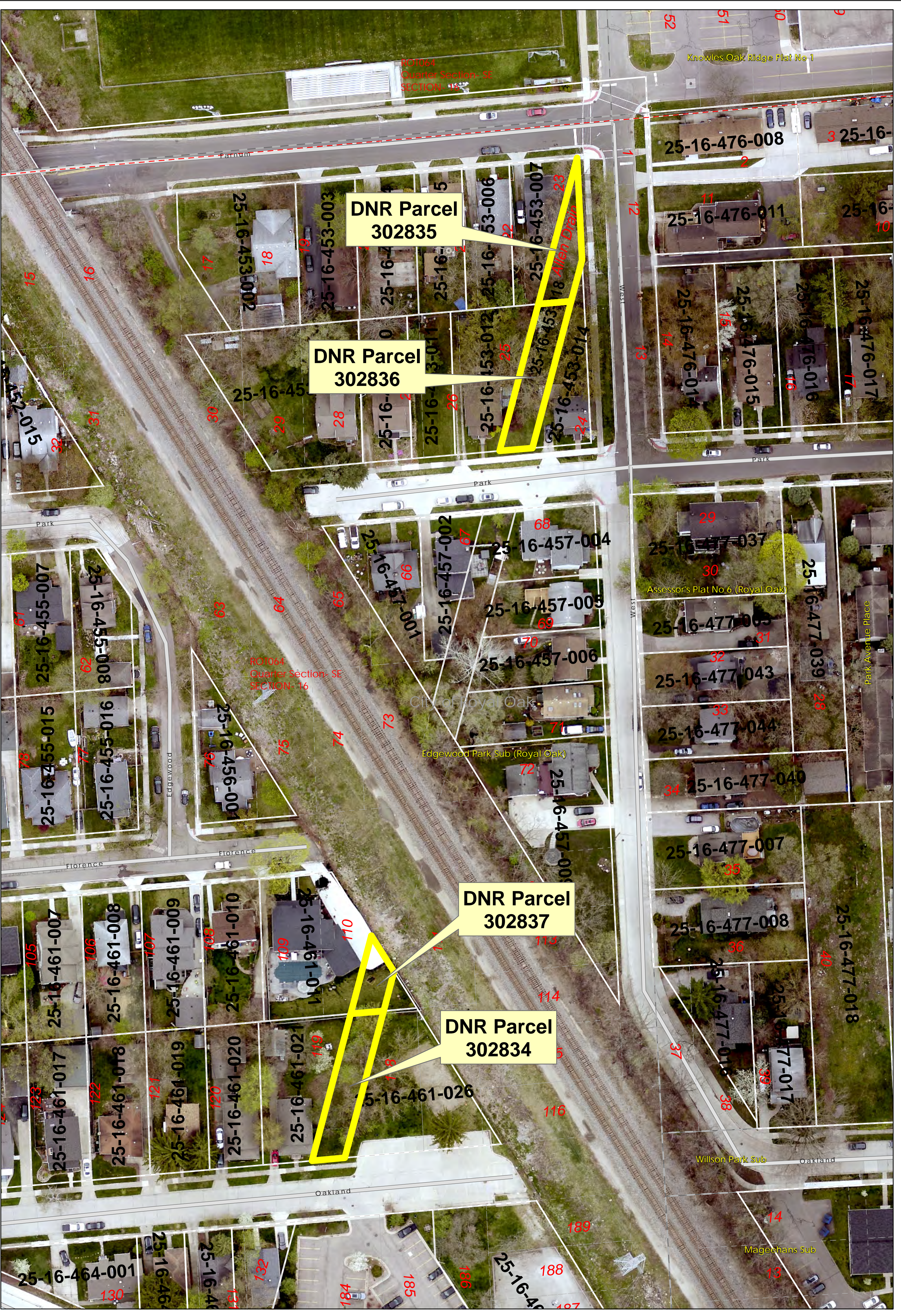
### **DNR PAR # 302836**

A part of the Allen Drain 26 ft. wide as designated on the Plat of Edgewood Park Subdivision of Part of the SW1/4 of the SE1/4 of Sec.16, T1N, R11E, recorded in Liber 14 of Plats on Page 22, Oakland County, Michigan records, described as being that part of the said Allen Drain bounded on the S by the N line of Park Avenue, on the W by the E'ly line of Lot 25 of said Edgewood Park Subdivision on the N by the N'ly line of said Lot 25,extended E'ly and on the E by the W'ly line of Lot 24 of said Edgewood Park Subdivision

### **DNR PAR # 302837**

A part of the Allen Drain 26 ft. wide as designated on the Plat of Edgewood Park Subdivision of Part of the SW1/4 of the SE1/4 of Sec. 16, T1N, R11E, recorded in Liber 14 of Plats on Page 22, Oakland County, Michigan records described as being that part of the said Allen Drain bounded on the W by the E'ly line of Lot 110 of said Edgewood Park Subdivision on the S by the S line of said Lot 110 extended E'ly on the E by the W'ly line of Lot 111 of said Edgewood Park Subdivision and on the N by the W'ly line of the GTW RR R/W





**DISCLAIMER:**  
The information displayed in this map is compiled from recorded deeds, plats, tax maps, surveys and other public records. Although this information is intended to accurately reflect public information, it is not a legally recorded map or survey and is not intended to be used as one. Users should consult primary/original information sources where appropriate.

WO 721381 Allen Branch of Royal Oak Drain  
CITY OF ROYAL OAK  
Oakland County, Michigan

One Public Works Drive  
Building 95 West  
Waterford, Michigan  
48328-1907

**WRC**  
WATER RESOURCES COMMISSIONER  
Jim Nash

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

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

**FROM:** George P. Nichols, P.E., Civil Engineer III *GPN*

**SUBJECT:** George W. Kuhn CCTV Program  
Fund #58510

**DATE:** June 28, 2022

Recommendations for cleaning and televising (CCTV) the sewers within the George W. Kuhn Drain are continually being identified, evaluated, and planned for by WRC staff including the asset management group, staff engineers and engineering consultants.

Based on discussion and review of the past sewer evaluations, it is recommended to establish two separate programs to accomplish this task.

Program No. 1

Our office will generate the required specifications and documents to obtain quotes from our as-needed contractor who specialize in CCTV services. The drains that will be bid under this program are the Baldwin Drain, Campbell Drain, Lawson Drain and Twelve Towns Middle Drain. It is anticipated that bids will be obtained within six weeks of Board approval and a recommendation of award will be requested at the August Board meeting.

Program No. 2

Establish a 5-year Capital Improvement Plan that will identify and prioritize recommended rehabilitation and replacement projects throughout the entire GWK system. Evaluation of recent CCTV data will also be evaluated and incorporated into the overall prioritization list.

In order to proceed with these two programs, authorization of \$610,000 is needed from the Drainage Board. This amount has already been included within the Major Maintenance Expense Budget for FY2022 that was previously approved. This work is part of the collection system and not the basin.

The GWK Drainage District Sewage Disposal fund has the necessary funds available to participate in this project.

**Requested Action:**

**Authorization to proceed with generating specifications and obtaining quote(s) for CCTV services and establishing a 5-year capital improvement plan, and to authorize the allocation of \$610,000.00 from the GWKDD Sewage Disposal Fund.**

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

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

**FROM:** George P. Nichols, P.E., Civil Engineer III *GPN*

**SUBJECT:** George W. Kuhn 5-Year Capital Improvement Plan  
Fund #58510

**DATE:** June 28, 2022

Recommendations and discussions for establishing a 5-Year Capital Improvement Plan (CIP) within the George W. Kuhn Drain have been ongoing with WRC staff including the asset management group, and staff engineers. Based on these discussions, it was recommended that an engineering consultant be hired to assist with creating and operating a capital improvement plan.

Discussions with Hubbell, Roth and Clark (HRC) took place as they have assisted our office with past CIP programs and are familiar with the operations and requirements of WRC. As outlined in their attached proposal letter (dated June 13, 2022), their scope of services include:

1. Kickoff Meeting and Receive Data and Media
2. Review of Inspection Data and Update of Asset Database
3. Coordination of Other Infrastructure Projects
4. Develop a 1-Year CIP Projects
5. Develop 2 to 5 Year CIP Projects
6. Report and Deliverables

Upon the asset management group review of HRC's proposal, we feel confident that they will provide us with the needed services to establish the required CIP program. We also feel that their cost for services is reasonable for the required work needed.

In order to proceed with this project, authorization of \$45,300 is needed from the Drainage Board. This amount is part of the \$610,000 that was recently approved and is included within the Major Maintenance Expense Budget for FY2022. This work is part of the collection system and not the basin

The GWK Drainage District Sewage Disposal fund has the necessary funds available to participate in this project.

**Requested Action:**

**It is recommended that the Board retain the services of Hubbell, Roth and Clark to proceed with establishing a 5-year Capital Improvement Plan for the not to exceed amount of \$45,300, and to authorize the Chairperson to sign the proposal on behalf of the Drainage Board.**



June 13, 2022

Oakland County Water Resources Commissioner  
One Public Works Drive  
Waterford, Michigan 48328

Attn: Mr. George Nichols, P.E.

Re: George W. Kuhn Drain Combined Sewers  
Proposal for Engineering Services, 5-Year Capital Improvement Plan

HRC Project No. 20220486

Dear Mr. Nichols:

As requested, HRC is pleased to provide this proposal for engineering assistance related to the development of a 5-year Capital Improvement Plan (CIP) for portions of the combined sewer system tributary to the George W. Kuhn Drain (GWK). We would propose that these services be provided under the terms and conditions of our existing as-needed Engineering Services Contract.

### **BACKGROUND AND PROJECT UNDERSTANDING**

The office of the Oakland County Water Resources Commissioner (OCWRC) owns, operates and maintains the GWK Drain, which is located within Oakland County and spans over 14 communities. The Drain system includes a large Retention Treatment Facility and 2 lift/pumping stations as well as the sewerage collection system. The collection system only is the focus of this project and includes the sewers, manholes, inlets, catch basins, and siphons that collect combined and sanitary sewage and stormwater from the service area and convey it to the RTF and/or sanitary interceptors. Installation dates range from 1919 to 2001.

OCWRC has completed significant amounts of sewer televising and manhole inspections to determine the condition of the system. In addition, OCWRC received a Stormwater, Asset Management, and Wastewater (SAW) grant to prepare an Asset Management Plan (AMP) for the system. Based on the age of the system and the data collected to date, it appears some of the assets are approaching the end of their expected useful life and therefore some maintenance, rehabilitation and replacement of the collection system assets are required.

We understand that OCWRC would like assistance in reviewing the AMP and recently collected CCTV sewer inspection data and manhole inspection data to identify projects for improvements to the collection system sewer pipes and manholes, generally on an annual basis, with a focus on the next five years. We also understand the lift/pumping stations and RTF are being evaluated separately.

The identification and prioritization of recommended rehabilitation and replacement projects will include the following considerations:

- Addressing assets with the overall highest Business Risk Evaluation (BRE) using OCWRC's infrastructure optimization software, which will provide BRE scores using your "Common to All" AMP methodology.

- Coordinating any recommended projects with other infrastructure projects, including road projects that are planned by the the Road Commission for Oakland County and/or the Michigan Department of Transportation. Other potential infrastructure projects to be considered include drinking water system improvements, residential lead service line abatement and/or local road projects if that information is provided by OCWRC.

We understand OCWRC staff has performed basic Quality Control and Quality Assurance (QA/QC) on the sewer and manhole inspections. In some cases, OCWRC staff may have also reviewed some of the sewer inspection data and may have provided some recommendations to address the sewers in the worst condition (NASSCO 4 or 5 defects). However, it is our understanding that the OCWRC would like to take a more holistic approach to this review and ensure that projects reflect the additional factors listed above and be coordinated in a systemic manner. The recommendations will identify the areas for repairs based on the currently available budget, and also determine if additional budget may be recommended for future years in order to have the system meet the required level of service.

As discussed, OCWRC will provide database exports (Excel format) of the sewer and manhole assets to be reviewed with key attributes for each asset (“Gravity Main Events” and “Manhole Events” spreadsheets). HRC will review each sewer asset and respond with one or more of the following recommendations: Inspect, Trenchless, Excavating Point Repair, Grouting, Full Liner, Full Replacement, and Review Video. Similarly, for the manhole database, we understand the export will include assets flagged as “needs repair” by OCWRC staff, and HRC will review each sewer asset and respond with one or more of the following recommendations: Inspect, Grout, Rehab, Lining, Replacement, and Review Inspection. A database of currently proposed projects in the system will also be provided (“Projects List Export for 5 Year Planning” spreadsheet) and updated by HRC to reflect the 5-Year CIP recommendations.

## **SCOPE OF SERVICES**

### **Preliminary Engineering (Study Phase)**

#### *Task 1 – Kickoff Meeting and Receive Data and Media*

A kickoff meeting will be held with OCWRC and HRC staff to confirm the scope, budget and schedule. At that time, a list of needed items will be prepared. HRC will review the database exports and other data and media provided by OCWRC to ensure all required data is received in an accessible format.

#### *Task 2 – Review of Inspection Data and Update of Asset Database*

While it is our understanding that OCWRC has already performed basic QA/QC of the sewer televising and manhole inspection data, additional review is necessary to confirm individual defect severity and to make recommendations for repair, rehabilitation and/or replacement of the assets for inclusion in the CIP. We understand OCWRC will provide the condition, risk and BRE scores for all pipes in potential project areas for assistance in creating proposed projects. **We have sufficient budget included for review of up to 250 sewer CCTV segments and/or manhole inspections.**

#### *Task 3 – Coordination of Other Infrastructure Projects*

HRC will use the information provided to determine recommendations for individual assets as well as areas of the system where repair, rehabilitation and/or replacement are recommended. As discussed in the background section, OCWRC is interested in doing a more comprehensive program, rather just addressing the worst condition pipe. HRC will review the scores of pipes and manholes in the vicinity of proposed projects, both condition and risk, to determine where it would be more cost effective to include additional assets in a proposed project to prevent the need for coming back to do work in a given area again in the near future. HRC will also use internal resources to identify other types of infrastructure projects that are currently proposed in the study area. This will include, at a minimum, RCOC and MDOT road projects and any other local project information provided by OCWRC.

Once this is complete, HRC staff will meet with OCWRC staff to confirm the areas that may be impacted by other construction and align any sewer projects with the other proposed projects. By performing this coordination, a “dig once” approach can be used to reduce the cost of and need to restore areas impacted by construction. It also reduces the overall impact of construction disruption on the residents and community.

#### *Task 4 – Develop a 1-Year CIP Projects*

It is anticipated that there will be enough areas requiring rehabilitation that work must be phased over at least 5 years to meet the current projected budgets. Priority will be given to identifying projects for the first year of the CIP. The proposed projects will be reported back to OCWRC by updating the existing project database for the system.

#### *Task 5 – Develop 2 to 5 Year CIP Projects*

This task will continue from the previous task by identifying and prioritizing projects for inclusion in years 2 to 5 of the CIP. The work will also review and make recommendations for future budgets beyond the first five years, based on extrapolating the condition of the assets reviewed to other parts of the system. The proposed projects will be reported back to OCWRC by updating the existing project database for the system.

#### *Task 6 – Report and Deliverables*

The deliverables will include a brief report with summarizing the scope of work, type of evaluations performed, other infrastructure projects reviewed, and recommendations for projects proposed to be implemented over the next 5 years with prioritization and estimated construction costs. The report will also review if the current budgets are sufficient to work toward restoring the system to the required level of service. Additional deliverables include updating the database of assets provided by OCWRC with the individual asset recommendations, providing a complete list of assets included in each of the projects in the 5-year CIP, and updating OCWRC’s existing project database for the system with the recommended projects for creation of OCWRC’s internal “project cut sheets.”

**ANTICIPATED PROJECT SCHEDULE**

We understand that the OCWRC would like to produce a 5 Year CIP document by approximately the fall of 2022, we anticipate the following schedule to finalize this work:

- Schedule kickoff meeting and begin review of available data – within two weeks of approval.
- Complete 5 Year CIP projects deliverable, September 2022.

**FEES FOR SERVICES**

**Our costs to complete this work will not exceed \$45,300.00** per the attached breakdown of hours and dollars. The fee will be billed monthly on a time and material basis under the terms and conditions of our engineering services agreement with OCWRC. We appreciate the opportunity to work with OCWRC on this important project. If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.



Daniel Mitchell, P.E.  
President.



Karyn Stickel, P.E.  
Senior Associate

/s/d

Attachment

pc: OCWRC; Gary Nigro, Jason Say, Jenny Shaw  
HRC; Sally Duffy, File

Accepted By:

Signature: \_\_\_\_\_

Written Name: \_\_\_\_\_

Title: \_\_\_\_\_

Dated: \_\_\_\_\_

**OAKLAND COUNTY WATER RESOURCES COMMISSIONER  
 GWK DRAIN SEWAGE COLLECTION SYSTEM  
 SEWER AND MANHOLE REHABILITATION PROGRAM**

**TABLE 1  
 ESTIMATED HOURS AND FEES**

June 13, 2022

HRC Job No. 20220486

Task Description	Associate/ Managing Engineer	Senior Project Engineer	Staff Engineer	Designer (CADD/GIS)	Total Hours	Estimated Fees (Rounded)
	\$ 170	\$ 165	\$ 125	\$ 140		
<b><i>Preliminary Engineering (Study Phase)</i></b>						
1 Kickoff Meeting and Receiving Data and Media	4	4	15		23	\$ 3,215
2 Review of Inspection Data and Update of Asset Database*	4	20	50		74	\$ 10,230
3 Coordination of Other Infrastructure Projects	4	10	40	6	60	\$ 8,170
4 Develop 1 Year CIP Projects for CWSRF Project Plan	4	10	40	10	64	\$ 8,730
5 Develop 2-5 Year CIP Projects	4	10	30	10	54	\$ 7,480
6 Report and Deliverables	4	10	30	10	54	\$ 7,480
<b>PROJECT TOTALS</b>	<b>24</b>	<b>64</b>	<b>205</b>	<b>36</b>	<b>329</b>	<b>\$ 45,300</b>

\* About 6 pipes/manholes per hour by Staff Engineer for a total of 250 pipe/MH segments

**ESTIMATED FEE SUMMARY**

PERSONNEL	HOURS	RATE	TOTAL
Associate/Managing Engineer	24	\$ 170.00	\$ 4,080.00
Senior ProjectEngineer	64	\$ 165.00	\$ 10,560.00
Staff Engineer	205	\$ 125.00	\$ 25,625.00
Designer (CADD/GIS)	36	\$ 140.00	\$ 5,040.00

**TOTAL ESTIMATED HRC LABOR COST (Rounded ) \$ 45,300.00**

**TOTAL SUBCONSULTANT FEES \$ -**

**TOTAL LUMP SUM NOT-TO-EXCEED \$ 45,300.00**





**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

**DATE:** June 22, 2022

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

Payable To	Ref No.	For	Amount
Dickinson Wright, PLLC	TBP	Invoice # 1691422 - Legal Services - 02/28/2022	\$ 26,664.76
Dickinson Wright, PLLC	TBP	Invoice # 1696962 - Legal Services - 04/30/2022	32,313.26
Orchard Hiltz & McCliment Inc	TBP	Invoice # 46333 - Contracted Services - 11/20/21	2,520.25
Orchard Hiltz & McCliment Inc	TBP	Invoice # 48352 - Contracted Services - 01/29/21	2,706.00
ICS Integration Services LLC	TBP	Invoice # 2361 - Contracted Services	1,962.52
ICS Integration Services LLC	TBP	Invoice # 2373 - Contracted Services	12,138.00
ICS Integration Services LLC	TBP	Invoice # 2346 - Contracted Services	18,875.07
ICS Integration Services LLC	TBP	Invoice # 2358 - Contracted Services	2,703.71
ICS Integration Services LLC	TBP	Invoice # 2359 - Contracted Services	12,396.23
<b>Total</b>			<b><u>\$ 112,279.80</u></b>

**7. Evergreen-Farmington  
Sanitary Drain**

## AGENDA

### DRAINAGE BOARD FOR THE EVERGREEN-FARMINGTON SANITARY DRAIN

June 28, 2022

1. Call meeting to order
2. Approve minutes of meeting of May 24, 2022
3. Public Comments
4. Present Memorandum from Ben Lewis, P.E. Manager, dated June 28, 2022, requesting the Board approve the proposed revised operating budget and sewer charges for the rate year beginning July 1, 2022
5. Present Memorandum from Phillip Kerby, Operations Engineer, dated June 28, 2022, requesting the Board approve the addition of the Bloomfield Township 087 18-in corrugated metal pipe rehab as a project to the capital improvement plan with a budget of \$30,000 and award engineering services to FK Engineering Associated in the amount of \$23,250
6. Present Memorandum from Evans Bantios, P.E., Project Engineer, dated June 28, 2022, requesting the Board receive and file the 8 Mile Conveyance Corrective Action Plan project cost summary
7. Present Memorandum from Evans Bantios, P.E., Project Engineer, dated June 28, 2022, requesting the Board authorize Walsh Construction to award a contract to Cummins for a 20-megawatt generator for the Drainage District's 8 Mile Outlet Conveyance Corrective Action Plan project and pay for the generator using undesignated funds
8. Present Engineering Work Order for Fishbeck regarding the request for evaluation of force main pipe products and crane design for the 8 Mile Corrective Action Plan
9. Present Change Order No. 1 from Walsh Construction for construction of the 8 Mile Corrective Action Plan – Phase 1 for a net increase in the amount of \$1,295,213.13
10. Present Construction Estimate No. 5 from Pipeline Management Company, LLC for the South Evergreen Interceptor Rehabilitation project in the amount of \$ 152,259.70
11. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$124,203.30
12. Other business
13. Approve pro rata payment to Drainage Board members
14. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD  
FOR THE EVERGREEN -FARMINGTON SANITARY DRAIN**

May 24, 2022

A meeting of the Drainage Board for the Evergreen-Farmington Sanitary 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 24<sup>th</sup> day of May 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

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

David Woodward, Chairperson of the Oakland County Board of Commissioners

ABSENT: None.

Minutes of the meeting held April 26, 2022, were presented for consideration. It was moved by Markham, supported by Nash that the minutes be approved.

ADOPTED: Yeas - 3  
Nays - 0

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

The matter of the GLWA/Highland Park litigation was presented. A motion was made by Woodward, supported by Markham, to enter into a closed session at 2:37 p.m. to discuss legal considerations and matters with the Drainage District's attorney as permitted under section 8(h) of the Open Meetings Act and exempt from disclosure as subject to the attorney-client privilege pursuant to section 13(1)(g) of the Freedom of Information Act.

ADOPTED: Yeas - 3  
Nays - 0

Chairperson Nash declared closed session ended at 3:20 p.m.

It was moved by Markham, supported by Nash, to authorize action consistent with the recommendation of legal counsel made in closed session.

ADOPTED: Yeas - 3  
Nays - 0

A memorandum from Evans Bantios, P.E. Project Engineer, dated May 24, 2022, requesting the Board to authorize Walsh Construction to obtain bids for the pumps and electrical equipment for the 8 Mile Outlet Corrective Action Plan project and pay for the equipment using undesignated funds was presented. It was moved by Markham, supported by

Woodward to authorize Walsh Construction to obtain bids for the pumps and electrical equipment for the 8 Mile Outlet Corrective Action Plan project and pay for the equipment using undesignated funds as presented.

ADOPTED: Yeas - 3  
Nays - 0

A memorandum from Carrie Cox, Chief Engineer, dated May 24, 2022, requesting the Board to approve the proposed resolution adopting the Drainage District's 2022 Clean Water State Revolving Fund Project Plan and designating an authorized project representative was presented. It was moved by Markham, supported by Woodward, to approve the proposed resolution adopting the Drainage District's 2022 Clean Water State Revolving Fund Project Plan and designating an authorized project representative as presented.

ADOPTED: Yeas - 3  
Nays - 0

Construction Estimate No. 4 for Pipeline Management Company, LLC in the amount of \$325,219.93 with a transfer to the Oakland County Treasurer in the amount of \$7,053.07 was presented. It was moved by Markham, supported by Woodward, to approve Construction Estimate No. 4 for Pipeline Management Company, LLC in the amount of \$325,219.93 with a transfer to the Oakland County Treasurer in the amount of \$7,053.07 as presented.

ADOPTED: Yeas - 3  
Nays - 0

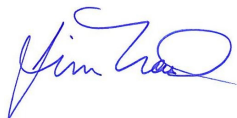
A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$10,668.25 (as attached) was presented. It was moved by Markham, supported by Woodward, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$10,668.25.

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.



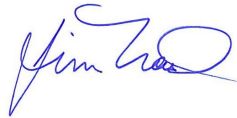
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Jim Nash, Chairperson

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 for the Evergreen-Farmington Sanitary Drain, Oakland County, Michigan, held on the 24<sup>th</sup> day of May 2022, 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 Evergreen-Farmington Sanitary Drain Drainage District.



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Jim Nash, Chairperson

Dated: May 24, 2022

**OAKLAND COUNTY  
WATER RESOURCES COMMISSIONER**

**MEMORANDUM**

**TO:** Jim Nash, Chairperson  
Evergreen-Farmington Sanitary Drain Drainage District

**FROM:** Ben Lewis, P.E., Manager

**SUBJECT:** FY 2022-2023 Revised Rate Recommendation

**DATE:** June 28, 2022

The purpose of this memorandum is to communicate a revised recommendation to the Board of the Evergreen Farmington Sanitary Drain Drainage District (EFSD) detailing the proposed monthly charges to our customer communities based on approved Great Lakes Water Authority (GLWA) monthly charges for its fiscal 2022-23 rate year.

On June 2, 2022, GLWA approved the removal of the fiscal year 2023 Highland Park bad debt charges from the revenue requirements of the wholesale sewer customers. Attached is a revised operating budget for fiscal year 2023 reflecting this change.

The revised budget and sewer charges are attached in Exhibit A. The total annual charge to communities will increase 3.4% to \$50,406,480.

**Recommended Action: Approve the proposed revised operating budget and sewer charges (Exhibit A), for the rate year beginning July 1, 2022, as presented.**

EXHIBIT A

PROPOSED OPERATING BUDGET  
AND SEWER CHARGES



**Evergreen Farmington Sewage Disposal System**  
58410  
**Financial Summary**

	2021 Actual	2022 Budget	2023 Forecast	Inc / (Dec)	% Variance
<b><u>Operating Revenues</u></b>					
Operating Rate Revenue	\$ 39,910,022.31	\$ 40,815,790.00	\$ 41,558,580.00	\$ 742,790.00	1.8%
Operating Non-Rate Revenue	640,801.13	728,600.00	523,210.00	(205,390.00)	-28.2%
<b>Operating Revenues</b>	<b>\$ 40,550,823.44</b>	<b>\$ 41,544,390.00</b>	<b>\$ 42,081,790.00</b>	<b>\$ 537,400.00</b>	<b>1.3%</b>
<b><u>Operating Expenses</u></b>					
Sewage Treatment	\$ 35,383,906.75	\$ 35,766,000.00	\$ 36,195,600.00	\$ 429,600.00	1.2%
Sewer System Maintenance	467,174.00	547,600.00	491,940.00	(55,660.00)	-10.2%
Sewer System Engineering	305,188.74	293,110.00	330,460.00	37,350.00	12.7%
Water Purchases	-	-	-	-	
Water Maintenance Unit	-	-	-	-	
Water Systems Engineering	-	-	-	-	
Septage Unloading Facility	266,208.50	344,900.00	278,200.00	(66,700.00)	-19.3%
Pump Maintenance Unit	1,196,678.70	1,201,250.00	1,250,120.00	48,870.00	4.1%
Systems Control Unit	1,672,821.88	1,837,170.00	1,552,240.00	(284,930.00)	-15.5%
Plan Review and Permitting	176,183.27	93,880.00	130,680.00	36,800.00	39.2%
Inspection	8,444.48	7,590.00	12,350.00	4,760.00	62.7%
IPP	-	-	-	-	
Laboratory	-	-	-	-	
Mapping Unit	33,967.63	23,700.00	46,920.00	23,220.00	98.0%
Miss Dig	1,480.91	230.00	790.00	560.00	243.5%
Billing Services Unit	-	-	-	-	
General and Administrative	3,739,357.62	1,428,960.00	1,792,490.00	363,530.00	25.4%
<b>Total Operating Expenses</b>	<b>43,251,412.48</b>	<b>41,544,390.00</b>	<b>42,081,790.00</b>	<b>537,400.00</b>	<b>1.3%</b>
<b>Net Income</b>	<b>\$ (2,700,589.04)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
Depreciation	(860,606.52)	(852,990.00)	(858,930.00)	(5,940.00)	0.7%
<b><u>Reserves</u></b>					
Non-Operating Revenue	\$ 1,332,396.56	\$ 1,250,250.00	\$ 1,256,440.00	\$ 6,190.00	0.5%
Non-Operating Expense	3,344,814.76	(256,150.00)	(235,110.00)	21,040.00	-8.2%
Major Maintenance Reserve Revenue	1,361,062.50	1,391,460.00	1,391,460.00	-	0.0%
Major Maintenance Reserve Expense	(1,091,165.43)	(2,230,520.00)	(3,013,680.00)	(783,160.00)	35.1%
Emergency Reserve Revenue	-	-	-	-	
Emergency Reserve Expense	(30,013.74)	-	-	-	
Capital Reserve Revenue	5,423,512.78	6,389,050.00	6,200,000.00	(189,050.00)	-3.0%
Capital Reserve Expense	(4,347,271.36)	(8,020,750.00)	(11,080,470.00)	(3,059,720.00)	38.1%
<b>Change in Net Assets</b>	<b>\$ 2,432,140.51</b>	<b>\$ (2,329,650.00)</b>	<b>\$ (6,340,290.00)</b>	<b>\$ (4,010,640.00)</b>	<b>172.2%</b>
<b><u>Rate Revenue</u></b>					
Revenue Requirements:					
Operating Expense	\$ 43,251,412.48	\$ 41,544,390.00	\$ 42,081,790.00	\$ 537,400.00	1.3%
Non-Operating	1,332,396.56	1,250,250.00	1,256,440.00	6,190.00	0.5%
Major Maintenance	1,361,062.50	1,391,460.00	1,391,460.00	-	0.0%
Emergency Maintenance	-	-	-	-	
Capital	5,423,512.78	6,389,050.00	6,200,000.00	(189,050.00)	-3.0%
<b>Total Revenue Requirements</b>	<b>\$ 51,368,384.32</b>	<b>\$ 50,575,150.00</b>	<b>\$ 50,929,690.00</b>	<b>\$ 354,540.00</b>	<b>0.7%</b>
Non-Rate Revenue	\$ (974,815.25)	\$ (1,828,600.00)	\$ (523,210.00)	\$ 1,305,390.00	-71.4%
<b>Rate Required Revenue</b>	<b>\$ 50,393,569.07</b>	<b>\$ 48,746,550.00</b>	<b>\$ 50,406,480.00</b>	<b>\$ 1,659,930.00</b>	<b>3.4%</b>

**Evergreen Farmington Sanitary Drainage District, GLWA FY 2022-23**  
**Monthly Charge Breakdown**

<b>GLWA FY 2022-23</b>	
GLWA Fixed Charge	\$ 36,195,600.00
OCWRC Fixed Charge <sup>(1)</sup>	5,886,190.00
Non-Operating	1,256,440.00
Major Maintenance Reserve	1,391,460.00
Emergency Reserve	-
Capital Improvement Reserve	6,200,000.00
Misc Revenue	(523,210.00)
<b>Total Charge:</b>	<b>50,406,480.00</b>

	<b>GLWA FY 2022-23</b>	<b>GLWA FY 2022-23</b>
	<b>Annual Charge</b>	<b>Monthly Charge</b>
Auburn Hills	\$ 381,577	\$ 31,798.09
Beverly Hills	2,235,527	186,293.92
Bingham Farms	289,334	24,111.16
Birmingham	3,709,916	309,159.68
Bloomfield Hills	1,227,902	102,325.16
Bloomfield Township	8,743,005	728,583.75
Franklin	261,105	21,758.75
Lathrup Village	1,044,422	87,035.16
Southfield	9,544,971	795,414.24
Troy	2,120,601	176,716.75
Farmington	393,170	32,764.18
Farmington Hills	11,818,808	984,900.66
Keego Harbor	420,390	35,032.50
Orchard Lake Village	451,642	37,636.83
West Bloomfield Township	6,361,298	530,108.16
Acacia Park RTB	415,855	34,654.58
Birmingham RTB	428,454	35,704.50
Bloomfield RTB	558,503	46,541.91
<b>Total</b>	<b>\$ 50,406,480</b>	<b>\$ 4,200,539.98</b>

**Evergreen Farmington Sanitary Drainage District, GLWA FY 2022-23**  
**Share & Monthly Charge Comparison**

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	GLWA FY 2021-22		GLWA FY 2022-23		% Change Mthly Charge
	Share % of System	Monthly Charge	Share % of System	Monthly Charge	
Auburn Hills	0.760%	\$ 30,872.83	0.757%	\$ 31,798.09	3.0%
Beverly Hills	4.423%	179,671.67	4.435%	186,293.92	3.7%
Bingham Farms	0.593%	24,088.83	0.574%	24,111.16	0.1%
Birmingham	7.153%	290,570.01	7.360%	309,159.68	6.4%
Bloomfield Hills	2.451%	99,564.92	2.436%	102,325.16	2.8%
Bloomfield Township	17.280%	701,950.33	17.345%	728,583.75	3.8%
Franklin	0.514%	20,879.75	0.518%	21,758.75	4.2%
Lathrup Village	2.168%	88,068.75	2.072%	87,035.16	-1.2%
Southfield	19.535%	793,553.16	18.936%	795,414.24	0.2%
Troy	4.179%	169,759.83	4.207%	176,716.75	4.1%
Farmington	0.766%	31,116.59	0.780%	32,764.18	5.3%
Farmington Hills	22.964%	932,846.42	23.447%	984,900.66	5.6%
Keego Harbor	0.853%	34,650.75	0.834%	35,032.50	1.1%
Orchard Lake Village	0.891%	36,194.33	0.896%	37,636.83	4.0%
West Bloomfield Township	12.686%	515,332.33	12.620%	530,108.16	2.9%
Acacia Park RTB	0.819%	33,269.58	0.825%	34,654.58	4.2%
Birmingham RTB	0.850%	34,528.75	0.850%	35,704.50	3.4%
Bloomfield RTB	1.115%	45,293.67	1.108%	46,541.91	2.8%
Total	100.00%	\$ 4,062,212.50	100.00%	\$ 4,200,539.98	3.4%

Charges have been rounded

**EVERGREEN FARMINGTON SANITARY DRAINAGE DISTRICT  
SCHEDULE OF RATES AND CHARGES  
EFFECTIVE JULY 1, 2022**

**1. Wastewater Disposal Charge**

Each community shall pay monthly, a charge in accordance with schedule below:

	<b>GLWA FY 2022-23 Monthly Charge</b>
Auburn Hills	\$ 31,798.09
Beverly Hills	186,293.92
Bingham Farms	24,111.16
Birmingham	309,159.68
Bloomfield Hills	102,325.16
Bloomfield Township	728,583.75
Franklin	21,758.75
Lathrup Village	87,035.16
Southfield	795,414.24
Troy	176,716.75
Farmington	32,764.18
Farmington Hills	984,900.66
Keego Harbor	35,032.50
Orchard Lake Village	37,636.83
West Bloomfield Township	530,108.16
Acacia Park RTB	34,654.58
Birmingham RTB	35,704.50
Bloomfield RTB	<u>46,541.91</u>
Total:	\$ 4,200,539.98

**2. Industrial Surcharge**

In accordance with current Great Lakes Water Authority (GLWA) standards and rates, the following industrial surcharges shall be levied against industrial and commercial customers contributing sewage to the System with concentrations of pollutants exceeding the levels described as follows:

Effective July 1, 2022

<b>INDUSTRIAL SURCHARGE RATE, PER EXCESS POUND</b>	<b>GLWA FY 2022-23 \$/LB</b>
Biochemical Oxygen Demand (BOD) in excess of 275 mg/l	\$0.351
Total Suspended Solids (TSS) in excess of 350 mg/l	0.482
Phosphorus (PHOS) in excess of 12 mg/l	6.448
Fats, Oil, & Grease (FOG) in excess of 100 mg/l	0.112

### 3. **Industrial Waste Control Charge (IWC)**

Each community shall report monthly the total number and size of water meters used by non-residential users of the System. Where metered water is not available, the community shall report monthly the "Assigned Water Meter Size" of non-residential users of the System as determined by WRC via Residential Equivalency Units (REU) equivalents or use of AWWA M22 (Chapter 5 – Sizing the Customer's Service and Meter).

Based on the reported number of water meter sizes, actual and assigned, for non-residential users of the System, each community shall pay a monthly IWC in accordance with the following schedule:

Effective July 1, 2022

<b>METER SIZE</b>	<b>GLWA FY 2022-23 MONTHLY IWC CHARGE</b>
5/8"	\$3.58
3/4"	5.37
1"	8.95
1 1/2"	19.69
2"	28.64
3"	51.91
4"	71.60
6"	107.40
8"	179.00
10"	250.60
12"	286.40
14"	358.00
16"	429.60
18"	501.20

Non-residential users shall be defined as all users other than those in single family houses, apartment buildings, condominiums, town houses, mobile homes, schools, churches and municipal buildings.

### 4. **Penalty**

The sewage disposal service charge shall be payable monthly. If any municipality does not pay its service charge by the due date, there will be a penalty of one (1) percent for each month or a fraction thereof for which the charge remains.

# EVERGREEN-FARMINGTON SEWAGE DISPOSAL RATES

Effective Date: July 1, 2022

Created by: \_\_\_\_\_  
Engineering Technician

Approved by: Raphael Chirolla Digitally signed by Raphael Chirolla  
Date: 2022.06.14 16:01:01 -0400  
Financial Supervisor

Approved by: Ben L Lewis  
Manager

**NOTE:**

**Approvals on this form represent authorization from WRC to allow Fiscal Services to invoice communities AND to pay invoices from the wholesale provider as detailed below. Any deviation in the amounts must be reviewed and approved by WRC.**

**1. Sewage Disposal Standard Fixed Charge (Billed Monthly)**

Account #	632086	632086	632086	632086	630462	
Program #	149030	149666	149662	149667	149999	Total
Auburn Hills	\$ 26,216.59	\$ -	\$ 877.75	\$ 3,911.17	\$ 792.58	\$ 31,798.09
Beverly Hills	153,593.59	-	5,142.58	22,914.17	4,643.58	186,293.92
Bingham Farms	19,878.91	-	665.58	2,965.67	601.00	24,111.16
Birmingham	254,892.59	-	8,534.25	38,026.67	7,706.17	309,159.68
Bloomfield Hills	84,363.91	-	2,824.67	12,586.00	2,550.58	102,325.16
Bloomfield Township	600,694.67	-	20,112.42	89,615.83	18,160.83	728,583.75
Franklin	17,939.42	-	600.67	2,676.33	542.33	21,758.75
Lathrup Village	71,757.83	-	2,402.58	10,705.33	2,169.42	87,035.16
Southfield	655,794.41	-	21,957.25	97,836.00	19,826.58	795,414.24
Troy	145,697.50	-	4,878.25	21,736.17	4,404.83	176,716.75
Farmington	27,013.09	-	904.42	4,030.00	816.67	32,764.18
Farmington Hills	812,020.00	-	27,188.00	121,142.83	24,549.83	984,900.66
Keego Harbor	28,883.17	-	967.08	4,309.00	873.25	35,032.50
Orchard Lake Village	31,030.33	-	1,039.00	4,629.33	938.17	37,636.83
West Bloomfield Township	437,057.75	-	14,633.50	65,203.33	13,213.58	530,108.16
Acacia Park RTB	28,571.58	-	956.67	4,262.50	863.83	34,654.58
Birmingham RTB	29,437.25	-	985.58	4,391.67	890.00	35,704.50
Bloomfield RTB	38,372.41	-	1,284.75	5,724.67	1,160.08	46,541.91
	<u>\$ 3,463,215.00</u>	<u>\$ -</u>	<u>\$ 115,955.00</u>	<u>\$ 516,666.67</u>	<u>\$ 104,703.31</u>	<u>\$ 4,200,539.98</u>

**2. High Strength Industrial Surcharge**

**Effective: July 1, 2022**

Billed by GLWA (not handled by OCWRC Billing Services Unit)

Pollutants	Excess Pollutants
BOD	\$0.351
TSS	0.482
P	6.448
FOG	0.112

**3. Industrial Waste Control (IWC)**

**Effective: July 1, 2022**

Revenue Account #: 630953  
 Program Number: 149120  
 Program Name: General & Administrative

Meter Size	Monthly IWC Charge
5/8"	\$ 3.58
3/4"	5.37
1"	8.95
1-1/2"	19.69
2"	28.64
3"	51.91
4"	71.60
6"	107.40
8"	179.00
10"	250.60
12"	286.40
14"	358.00
16"	429.60
18"	501.20

**4. Penalty Fee** 1% for each month or fraction thereof on unpaid balance

**5. Revision Log:**

Date:	Description of Revision	Approval Signatures:

**Distribution:**  
 Billing Services  
 Fiscal Services  
 Rates and Charges

**OAKLAND COUNTY  
WATER RESOURCES COMMISSIONER**

**MEMORANDUM**

**TO:** Jim Nash, Chairperson  
Evergreen-Farmington Sanitary Drain Drainage District

**FROM:** Philip Kerby P.E., Operations Engineer

**SUBJECT:** 18-inch Corrugated Metal Pipe (CMP) Rehabilitation  
Lasher Road Between Quarton and Long Pine Roads  
Bloomfield Township

**DATE:** June 28, 2022

WRC performed CCTV inspection of the existing 18-inch sanitary sewer along the east side of Lasher Rd. between Quarton Rd. and Long Pine Rd. in Bloomfield Twp. It has been determined that approximately 640 feet of the corrugated metal pipe (CMP) requires rehabilitation after review of the inspection video.

This stretch of sewer was put into service in 1960 and the CMP was lined with a protective asphaltic coating. The inspection video shows deterioration of the invert along the length of the pipe, delamination of the asphaltic coating, and infiltration. Previous repairs to this pipe have changed the internal diameter of the sewer. As such, it is recommended that a laser profiling scan of the sewer be performed to best determine the appropriate rehabilitation method for this stretch of pipe.

This rehabilitation was planned this fiscal year in the EFSD Long Range Plan as a capital improvement project. It's recommended to approve \$30,000 for the design phase of this project. The design phase will include conducting laser profiling scanning and development of plans and specifications for the rehabilitation.

We are recommending award of engineering services to FK Engineering Associates in the amount of \$23,250 per the attached proposal and the terms of their existing contract with the County.

The following is a breakdown of the estimated expenses for the design phase of this project:

Contracted Services:	\$23,250
WRC Engineering:	\$3,500
Contingency:	\$3,250
<b>TOTAL:</b>	<b>\$30,000</b>

**RECOMMENDED ACTION:** Approval to add EFSD BLT087 18-in CMP Rehab as a project to the capital improvement plan with a budget of \$30,000 AND award engineering services to FK Engineering Associates in the amount of \$23,250.





**Deteriorated Invert**



**Existing Pipe Patch Rehab**



**Infiltration**

**OAKLAND COUNTY  
WATER RESOURCES COMMISSIONER**

**MEMORANDUM**

**TO:** Jim Nash, Chairperson of the Evergreen Farmington Sanitary Drain Drainage Board

**FROM:** Evans Bantios, P.E. Project Engineer

**SUBJECT:** 8 Mile CAP – Project Summary Cost

**DATE:** June 28, 2022

The attached project cost summary for the 8 Mile CAP project. This cost is based on the current available data. This includes construction cost estimates provided by the CMAR and project duration. The project cost is significantly larger than what was presented when the Drain was established. The current project cost is \$83,749,711.

**8 Mile Conveyance Project**  
**SRF Cost Estimate**  
**Revised: 3/17/2022**

	<b>Project Costs</b>
<b>1) Contracted Services: Construction Cost</b>	
a Engineers Estimate Pump Station & SSO	\$ 43,697,331
b Engineers Estimate Forcemain	\$ 12,337,660
<b>Subtotal Construction Cost</b>	<b>\$ 56,034,991</b>
<b>2) Engineering Consultants</b>	
a Design Phase	\$ 3,058,813
b Construction Administration	\$ 3,058,813
c Scheduling Consultant	\$ 327,730
d Preconstruction for Walsh	\$ 849,980
<b>Subtotal Engineering Consultants</b>	<b>\$ 7,295,336</b>
<b>3) Legal &amp; Financial (Examples)</b>	
a Easements	\$ 300,000
b Legal Costs	\$ 280,175
c Financial Consultant	\$ 100,000
d Bond Counsel	\$ 470,000
e OCIP Insurance	\$ 2,650,000
f Official Statement	\$ 40,000
g Wetland Mitigation	\$ -
<b>Subtotal Legal &amp; Financial</b>	<b>\$ 3,840,175</b>
<b>4) County Services: (Examples)</b>	
a Administration & General (ADM)	\$ 560,350
b Engineering (ENG)	\$ 2,801,750
c Right-Of-Way (ROW)	\$ 280,175
d Construction Inspection (INS)	\$ 4,482,799
e GIS Mapping (ADM)	\$ 280,175
f Operation Staff (STD)	\$ 280,175
g Survey (SUR)	\$ 280,175
<b>Subtotal County Services</b>	<b>\$ 8,965,599</b>
<b>Project Subtotal</b>	<b>\$ 76,136,101</b>
<b>5) 10% Project Contingency</b>	<b>\$ 7,613,610</b>
<b>6) Less Anticipated Grant Funds</b>	
<b>7) Total Project Cost as of</b>	<b>\$ 83,749,711</b>

I hereby certify that the useful life of these facilities is 30 years or greater. Evangelos Bantios  
(Engineer)

**OAKLAND COUNTY  
WATER RESOURCES COMMISSIONER**

**MEMORANDUM**

**TO:** Jim Nash, Chairperson of the Evergreen Farmington Sanitary Drain Drainage Board

**FROM:** Evans Bantios, P.E. Project Engineer

**SUBJECT:** Award contract for prepurchase of generator for the EFSD 8 Mile Outlet Conveyance CAP Project

**DATE:** June 28, 2022

As part of this project, we are using a Construction Manager at Risk (CMAR). Walsh was brought on a few months ago to assist during the design phase of the project. The current schedule has Walsh providing a guaranteed maximum price (GMP) by November of 2022. Some of their scope of work includes providing preliminary cost estimates and construction schedules. The critical path schedule requires the need for a new generator prior to starting any of the major work which includes upgrades to the electrical system and new larger pumps. We have obtained two bids for the new generator and docking station from Michigan CAT and Cummins. The bid totals are below which include taxes, insurance requirements not covered by the OCIP and Walsh's overhead and profit.

<b>Bids</b>	<b>Michigan CAT</b>	<b>Cummins</b>
Total Contract Value	\$1,263,099.20	\$1,210,112.00

The price doesn't include unloading or installing the new equipment. This will be covered under a separate subcontract. The prices doesn't include removal of the existing generator but we are receiving a credit of \$25,000 for the existing generator. Liquidated damages has been excluded by both companies. The estimated lead time is 82 to 86 weeks.

**Requested Action: Authorize Walsh to award a contract to Cummins for a 2-megawatt generator for the EFSD 8 Mile Outlet Conveyance CAP project and pay for the generator using undesignated funds.**



**WALSH CONSTRUCTION II LLC.**

**8 Mile Road Pump Station & SSO Chamber Improvements Phase 1**

**Reference: Generator & Docking Station Purchase & Removal of Existing Generator Bid Package**

**Date of Recommendation: 6-17-2022**

**Summary:** After review of the bid's received for the new generator & docking station Walsh recommends the purchase of the Cummins Generator. Cummins is the low bidder for the bid package & had the below benefits when compared to the other bidders. Walsh feels like with the help of WRC relative to OCIP, Liquidated Damages & negotiating payment terms Walsh can successfully execute a contract with Cummins for the work associated with this bid package.

- 1. Following the bid form & provided backup relative to SRF's USA Steel, excluding OCIP & liquidated damages.
- 2. Holding price for 120 days & included all associated inflation in their base bid.
- 3. Payment terms are net 60 with flexibility on a negotiated schedule of values.

<b>Bidder</b>	<b>Michigan CAT</b>	<b>Cummins</b>
Base Bid (Generator & Docking Station)	\$1,196,320.00	\$1,235,112.00
Add for Tax	\$71,779.20	\$0 (Included in Base Bid)
Subtotal	\$1,268,099.20	\$1,235,112.00
Deduct for Removal of Existing Generator	-\$5,000.00	-\$25,000.00
<b>Total Contract Value (Not including Walsh MU. &amp; Ins.)</b>	<b>\$1,263,099.20</b>	<b>\$1,210,112.00</b>
<b>Notes:</b>		
Estimated Equipment Lead Time (In Weeks)	60-64	82-86
Liquidated Damages	Excluded	Excluded
OCIP	No Response	Excluded w/ proper letter as backup
Payment Terms	Net 30 Days- 30% Submittals, 60% before shipment, 10% after startup	Net 60 Days- Payment amount subject to negotiation
Response to Bid Package & Walsh Subcontract	Excluded	16 items they wish to negotiate



## Request for Bids: 8 Mile Outlet Conveyance Project

### **Bid Package: Diesel Engine Generator (26 32 13) & Generator Docking Station (26 36 23)**

Walsh Construction Company II LLC (Walsh) is issuing this Request for Bid for qualified suppliers to provide goods/services for Evergreen Farmington Sanitary Drain Drainage District c/o Oakland County Water Resources Commissioner (Oakland County) 8 Mile Outlet Conveyance Project (Project). Walsh reserves the right to issue addendums at any time. Changes from the last request for bids have been highlighted.

**Solicitation Date:** Monday June 13th, 2022 via Smartbid for Invite email [rbeaudrie@walshgroup.com](mailto:rbeaudrie@walshgroup.com)

**Issued By:** Walsh Construction II LLC.

**Project Address:** 22500 W Eight Mile Rd Southfield, MI 48033

**Site Visit:** None

**Questions/Inquiries:** None

**Due Date:** Due Thursday June 16<sup>th</sup>, 2022, at 9AM (EST), Late proposals **will not** be accepted.

**Proposal:** Electronically submitted via email to Ryan Beaudrie and cc Evans Bantios and cc Joe Siwek:

To: Ryan Beaudrie: [rbeaudrie@walshgroup.com](mailto:rbeaudrie@walshgroup.com)  
cc: Evans Bantios: [bantiose@oakgov.com](mailto:bantiose@oakgov.com)  
cc: Joe Siwek: [jsiwek@fishbeck.com](mailto:jsiwek@fishbeck.com)

**Overall Project Duration:** 49 Months from May 4th 2022.

**Owner:** Evergreen Farmington Sanitary Drain Drainage District c/o Oakland County Water Resources Commissioner (Oakland County)

**Construction Manager:** Walsh Construction Company II LLC. (Walsh)

**Engineer:** Fishbeck (Engineer)

**BID Bond:** None (Still have to provide a bond for the project per line 3.7, include cost in your bid)



## Table of Contents

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**2: Description of the Project .....5**

**3: Scope of Work .....5**

**4: Best Value .....6**

**5: Bid Proposal Form .....7**

**6: Previously Issued Questions & Answers.....7**

### **Attachments:**

**Attachment 1: Bid Package Contract Drawings**

**Attachment 2: Bid Package Contract Specification**

**Attachment 3: Subcontractor Sample Contract**

**Attachment 4: Walsh and Oakland County Executed Contract**

**Attachment 5: Owner Controlled Insurance Program (OCIP)**

**Attachment 6: State Revolving Fund (SRF) Funding Requirements for Alternate Pricing**

**Attachment 7: No Bid Bond (This was the requirements for the bid bond)**

**Attachment 8: Existing Generator System Information for Alternative Credit**



## **1-Instructions to Bidders**

### **General Information**

- 1.1 Walsh respectfully invites you to submit a bid for the 8 Mile Outlet Conveyance Project for the above referenced bid package. Proposals shall be in accordance with the bid package scope as further described in the request for proposal. All proposals shall be in accordance with the drawings, specifications, and subsequent addendums as prepared by Walsh, Oakland County and Fishbeck. Proposals shall acknowledge receipt of all such Addenda if applicable.
- 1.2 Below you will find the instruction to bidders for the project, all addendums will be issued via smart bid.
- 1.3 The project delivery method is Construction Manager at Risk. (CMAR)
- 1.4 Late bids **will not** be accepted
- 1.5 After the time for receiving proposals has expired, no modifications, alteration, or revision to any vendor's bid in any form will be accepted, nor will a bidder be allowed to withdraw its bid and submit another proposal for the work.
- 1.6 Bids for the above referenced bid package are to be based on ALL the information included in the Request for Proposal & associated attachments as outlined in the table of contents.
- 1.7 **All bids shall be valid for acceptance for a period of at least One Hundred & Twenty (120) calendar days after the bid date.**
- 1.8 **Bidders to review the contract terms and conditions & provide any requested red line markups with their bid for review.**

### **Questions & Inquiries**

#### **1.9 No Questions**

- 1.10 Only written notices or addendum issued by Walsh, Oakland County & Fishbeck shall constitute revisions to the request for proposal & the associated contract documents.
- 1.11 Should bidders be in doubt as to the true meaning of any portion of this request for proposal, find any ambiguity, inconsistency, or omission herein, or intend to take





exception to any requirement of the solicitation, the bidder must make a written request for an official interpretation of correction by the questions & answer process outlined above.

### **Site Visit**

No site visit.

### **Project Tax & General Requirements**

- 1.12 **The project is subject to all applicable taxes, bidders are to include all applicable tax in their bid. No Exemption Form is available.**
- 1.13 Liquidated Damages for delay will be assessed at **\$3,000.00 per each calendar day** that the project is delayed. The work associated with this bid package is on the critical path of the project and any delay in submittals or fabrication/ delivery above the quantity or weeks quoted on the bid form will apply for liquidated damages. Liquidated damages outlined above supersede any liquidated damages outlined in the sample contract or the signed contract between Oakland County & Walsh.
- 1.14 The project is accepting pricing on non SRF funding requirements (Base Bid) & SRF funding requirements (Alternate Pricing). A price for both options must be included on the bid form for the owner's review, see Attachment 6 for SRF requirements. Failure to do so will be considered non-responsive.
- 1.15 The project does not provide any bid stipends or reimbursable costs associated with bidding the project.
- 1.16 All lump sum base bid prices from the supplier to be fully inclusive & include the cost of the associated permits with delivering the equipment to the project site at any time of the year on a flatbed semi-trailer. Bid pricing shall include but not be limited to permits, insurance, bond, sales tax, other applicable taxes per the Request for Proposal & associated Attachments, all escalation, pandemic impacts & global economic impacts. Work is to be performed in accordance with the information & attachments provided in this request for proposal.
- 1.17 Project work hours are to be Monday thru Friday from 7am to 4pm unless otherwise agreed upon by all parties.

### **Bid Deadline & Instruction**

- 1.18 The bids will be turned in electronically via email, but Walsh & Oakland County reserves the right to request a hard copy of the bid.



**1.19 The bid packages are due, Thursday June 16<sup>th</sup>, 2022, at 9 AM (EST)**

The completed bid form to be emailed in PDF format to all persons listed below. Email also to include PDF of company proposal & any exceptions noted or red line requested markups of the contract terms & conditions.

**Subject of email to be:** Oakland County 8 Mile – (Insert Number of Bid Pack) - (Company Name)

To: Ryan Beaudrie: [rbeaudrie@walshgroup.com](mailto:rbeaudrie@walshgroup.com)

cc: Evans Bantios: [bantiose@oakgov.com](mailto:bantiose@oakgov.com)

cc: Joe Siwek: [jsiwek@fishbeck.com](mailto:jsiwek@fishbeck.com)

## **2-Description of the Project**

- 2.1 The 8 Mile Outlet Conveyance Project involves the design and construction of pump station improvements to increase the facilities outlet capacity.
- 2.2 To facilitate the replacement of the pumps the electrical system is being completely replaced & the existing diesel generator does not meet the new project requirements. A new diesel engine generator & generator docking station is required for the project which will be located outside on a concrete pad to back feed the pump station's electrical system per the design. The construction manager at risk will use the new generator to facilitate startup & sequencing of the overall construction project.

## **3-Scope of Work**

- 3.1 The bid includes all work associated included within the request for bid & associated attachments to provide a fully functional equipment/system. Bidders should review the associated specifications section(s) associated with their work & division 1 in its entirety, all pages of the request for proposal & included attachments.
- 3.2 Scope to include but not limited to signing the attached sample contract, providing full shop drawings, equipment that meets the project contract documents, O&M manuals, training, training documents, warranty, startup & testing of equipment, startup reports, fabrication & delivery of equipment & all associated work to provide a complete & operable system.
- 3.3 All work associated with constructing the foundation, unloading, setting, wiring, etc. of the equipment will be included in other future bid packages & is not to be included in this bid. Install assistance in answering any install questions & provided proper instructions for install is required by the equipment supplier as part of this bid.
- 3.4 Comply with all federal, state, local & project safety requirements.



- 3.5 Include all cost associated with the compliance of all COVID-19 health and safety rules and regulations issued by Federal, State and Local agencies.
- 3.6 Participation in the Owner Controlled Insurance Program (OCIP) is required for onsite work only, refer to attachment #5.
- 3.7 Bidders provide required bonds & insurance as outlined in the request for proposals Attachment #3 Exhibit D & Exhibit H.

#### **4-Best Value**

- 4.1 Oakland County & Walsh will evaluate responsive bids for best value based on the following criteria:
  - Overall price (Include tax)
  - Lead Time commitment from delivery of contract to full comprehensive submittals delivered to Walsh for engineer review & from date of approved submittals to delivery of equipment to project site in Southfield, Michigan, or storage facility within 50 miles of the site.
  - Confirming the acceptance of contract terms or reviewing & negotiating red lines of the proposed contract.
  - Confirmation & negotiation of scope provided which may involve in person or phone interviews.
  - Review of proposed payment terms & reviewing & negotiating any proposed exclusions.
- 4.2 Oakland County and/or Walsh reserves the right to request from any bidder written clarifications or request additional information, reject any or all proposals, waive any non-conformance, defect, or informality in any proposal, and/or determine which proposal best serves its needs.
- 4.3 Should Oakland County and/or Walsh determine, in its sole judgment, that contract negotiations are unproductive, Oakland County and/or Walsh reserves the right to cease negotiations with this vendor and initiate negotiations with another vendor or rebid the request for proposal.
- 4.4 The contract award is subject to board approval.
- 4.5 The supplier to whom the contract is awarded will be required to negotiate in good faith.
- 4.6 No bid bond-attachment #7 has been deleted/ not included.



## **5-Bid Proposal Form/Package**

- 5.1 The bid form is included on the next page. It is to be completed in its entirety & not to be modified in any way.

## **6-Previously Issued Questions & Answers**

Question #1: Can you utilize a non-Union contractor for the decommissioning of the CAT/Tank equipment?

Answer #1: The supplier can utilize a Non-Union contractor to remove the existing generator system but the wage rates at the time of the work must be equal to or greater than the prevailing wages as outlined in the Davis-Bacon Act.

Question #2: What is the minimum kW that can be used to verify the new Triple Switch functionality?

Answer #2: *As part of testing and demonstrating operation of the portable generator connection of the new manual transfer switch dual-purpose docking station, furnish an appropriately sized portable generator to demonstrate operation of existing Pump P-4 (350 HP, 504-amps at full load) and 50 KVA of miscellaneous load inside the existing pump station. After the new generator has been proven out to be able to back feed the existing plant electrical system then the testing & demonstration of the docking station will occur. Portable generator to be connected to existing power distribution system (i.e., existing generator circuit breaker in existing main switchboard) via new docking station. (Wire from the docking station to the buss bar cabinet & to the existing main switchboard will be by the electrical contractor & part of the new electrical system.) Connection to existing generator circuit breaker will consist of 6 parallel sets of (3-500kcmil,250kcmilG) conductors. Pump P-4 is controlled via a variable frequency drive (VFD). The configuration of the existing VFD (e.g., number of pulses, line reactors, etc.) to be field verified. Minimum portable generator size shall be 600 KW. A photo of the motor nameplate for Pump P-4 is included on the next page.*



## Bid Proposal Form

The undersigned, as bidder declares that they have carefully examined all bid documents & hereby proposes to furnish all items required per the bid package & included attachments. The completed bid form to be emailed in PDF format to all persons listed in the bidding instructions.

Bidding Supplier: Cummins

Bid Pack Bidding: Generator & Docking Station

Contact Name: Dennis Robak

Phone: 248-207-2876

Email: dennis.robak@cummins.com

Date: 6/15/2022

Signature: Dennis L Robak

### All Bids & Alternate Pricing Held for 120 Calendar Days (Price both options below)

#### Base Bid

Bid (Including all Taxes, Bond, Insurance) \$ 1,235,112.00

Bid amount write out: One million two hundred thirty-five thousand one hundred twelve (US) Dollars

#### Alternate Pricing (SRF Funding Requirements)

Bid (Including all Taxes, Bond, Insurance) \$ 1,235,112.00

Bid amount write out: One million two hundred thirty-five thousand one hundred twelve (US) Dollars

#### Lead Times (In Weeks)

Lead Time from execution of contract to full submittal delivered to Walsh for engineer review.

6-8 Weeks (Base Bid)                      6-8 Weeks (Alternate Pricing)

Lead Time from approved submittal to delivery of all equipment to the project address in Southfield, Michigan, or storage facility within 50 miles of the site.

82-86 Weeks                                      82-86 Weeks (Alternate Pricing)

#### Credit for Receiving Existing Generator Package After New Generator Package is Started Up & Operational

Credit (Including all dismantle, removal, loading, shipping, etc.) \$ 25,000.00

Bid amount write out: Twenty-Five Thousand and zero (US) Dollars

**\*Initial on the line to confirm including/attaching written proposal & bidder has reviewed the contract terms and conditions & provide any requested red line markups with their bid for review. Initial** dlr



## **Payment Terms**

In the space below or on attached proposal please describe the proposed payment terms.

Net 60 days

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## **Exclusions**

In the space below or on attached proposal please describe any proposed exclusions.

See attached exceptions. Cummins would not accept any LD's. Cummins does not give up slots once the order has been entered. Dates may change, but it is due to supply chain issues.

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**OAKLAND COUNTY WATER RESOURCES COMMISSIONER**

One Public Works Drive

Phone: (248) 858-0958

Waterford, Michigan 48328-1907

No.   D-437  **ENGINEERING WORK ORDER**FOR:   EFSD 8 Mile CAP    Addition to Contract # 6321 for Request for Technical Submission (RFTS) & Crane Design  TO:   Fishbeck  DATE:   June 17, 2022  **DESCRIPTION**

Fishbeck's subcontractor NTH Consultants, Ltd (NTH) will conduct a desktop study of various forcemain materials to be used as part of the 8 Mile CAP project. In addition, Fishbeck will hire Royal Arc to design a crane system that will be constructed as part of the improvements to the 8 Mile Pump Station. The scope of work is discussed below:

**Request for Technical Submission for 54-inch Diameter Forcemain**

NTH Consultants, Ltd. (NTH) will conduct a desktop study and evaluation of various 54-inch diameter forcemain pipe products available in the market for the 8 Mile Pump Station Forcemain project. The purpose of the study is to obtain sufficient information to evaluate the suitability of current forcemain pipe products and technologies. The scope of work for NTH is as follows:

Review the available project design documents and prepare an RFTS package. In addition to providing project background, the RFTS package will include a list of critical design parameters to consider in the selection of the forcemain system such as pipe size, depth, alignment and profile, construction technique, design pressures, relevant technical specifications, subsurface soil/environmental conditions, and other parameters. The design parameters will be provided by Fishbeck.

Research up to ten forcemain products that may qualify and potentially be used for the project. This research will include forcemain pipe materials such as FRP, Steel, Ductile Iron, Concrete with Liner, and HDPE. The preliminary list includes the following suppliers: Permalock T-7 (steel); Thompson Pipe (RFP and PCCP); QuakeWrap Stifpipe (FRP); Hobas Pipe (FRP); American CIPCO (Ductile Iron); US Pipe (Ductile Iron); Agru (HDPE); Diamond Plastics Corporation (PVC); and Foreterra Pipe (PCCP).

Coordinate and schedule up to six online technical presentations by the product manufacturers/suppliers to present their understanding of the project and product capabilities. Invite the Owner and the project design team to attend the presentations.

Preliminary data collection of the products will be based on desktop study, meetings/discussions with product manufacturers, presentations, and technical product data sheets. Also, they will request for and compile successful product installation case histories/experience from the product manufacturers to validate the functionality and performance of the product in conditions similar to this project.

After collecting the data, the products will be evaluated based on their relative performance with respect to proven history of applications, constructability, corrosion resistance, service life, warranty, and cost.

After compiling the data, we will coordinate and schedule one workshop with the Owner and design team to review the various product's capabilities.

NTH will tabulate the data and prepare a summary memorandum detailing our evaluation and provide recommendations.

**8 Mile Pump Station Crane Design**

This Engineering Work Order (EWO) is for the crane design for the new pumps at the 8 Mile Pump Station as part of the EFSD 8 Mile CAP Conveyance project.

Royal Arc will conduct an engineering study to determine the feasibility of a crane system at the pump room floor. They will design and provide stamped drawings for a new crane system that will move pumps from the current opening to their final location.

Fees for this Engineering Work Order shall be billed on a time and material basis according to the contract standard fee and schedule. The total amount of this Engineering Work Order is \$59,263.60. The proposals for NTH and Royal Arc are included for reference. This amount is not to be exceeded without written authorization. Fishbeck will bill OCWRC for actual services rendered in accordance with Contract No. 6321.

**RECOMMENDED** \_\_\_\_\_ **ACCEPTED** \_\_\_\_\_ **DATE:** \_\_\_\_\_

By: \_\_\_\_\_  
 Evangelos Bantios, P.E.  
 Project Engineer  
 OCWRC

By: \_\_\_\_\_  
 Maria Sedki, P.E.  
 Vice President  
 Fishbeck

**APPROVED** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **APPROVED** \_\_\_\_\_ **DATE:** \_\_\_\_\_

By: \_\_\_\_\_  
 Joel Brown, P.E.  
 Chief Engineer  
 OCWRC

By: \_\_\_\_\_  
 Sid Lockhart, P.E.  
 Special Projects Engineer  
 OCWRC

**Approved by Drainage Board on:** \_\_\_\_\_



**CHANGE ORDER NO. 1**

Jim Nash, Oakland County Water Resources Commissioner  
 For Construction of the 8 Mile Corrective Action Plan - Phase 1  
 Located in Southfield, Oakland County, Michigan

CONTRACTOR: Walsh Construction Company II, LLC  
 Address: 3031 W. Grand Blvd  
 Suite 640  
 Detroit, MI 48202

Authorization for Extras To & Changes In Contract

Change Order No: 1

Date: 6/22/2022

Auth No.	Location-Description-Reason	Unit Used	Est. Quant.	Unit Price	Amount Increase	Amount Decrease
1-1	<p><b>LOCATION:</b>                      8 Mile CAP (Preconstruction Services - Ref. attached Walsh Bid Package Docs)</p> <p><b>DESCRIPTION:</b>  <b>(Change/Add):</b>                      Grant Walsh authorization to to enter into a subcontract with Cummins, the low bidder, for a generator, generator enclosure and docking station which includes but is not limited to the following services:</p> <p>1. Procurement of a two megawatt generator with enclosure and docking station. Cummins will manufacture and deliver the generator, enclosure and docking station to the site. The generator will be installed by other.</p> <p>The total value of the change order is \$1,295,213.13 which consists of a base subcontract of \$1,210,112.00 to Cummins and Walsh's contractual 6.5% CMAR fee of \$78,657.28 and \$6,443.85 for supplemental insurance coverage outside OCIP. Work is contingent upon availability of funds.</p>	LS	1.00	\$1,295,213.13	\$1,295,213.13	---

CONTRACTOR: Walsh Construction Company II, LLC  
 Address: 3031 W. Grand Blvd  
 Suite 640  
 Detroit, MI 48202

Authorization for Extras To & Changes In Contract

Change Order No: 1

Date: 6/22/2022

Auth No.	Location-Description-Reason	Unit Used	Est. Quant.	Unit Price	Amount Increase	Amount Decrease
	<p><b>REASON:</b>                      The primary purpose of retaining Walsh as a construction manager at risk for this project was to expedite the procurement of the core materials and equipment with long lead times in an effort to reduce the overall project construction time. As such a series of material and equipment packages have been and continue to be let for subcontractors to bid on. The generator, electrical switchgear and transformer equipment, valves, pumps and VFDs are in need of replacement under this project and have the longest manufacturing lead times. The subcontractors were selected as the lowest responsive and responsible bidder. Work will progress based on availability of funds.</p>					
Totals					\$1,295,213.13	\$0.00
Net Increase					\$1,295,213.13	---

**JIM NASH**  
**OAKLAND COUNTY WATER RESOURCES COMMISSIONER**

**CHANGE ORDER NO. 1**

Jim Nash, Oakland County Water Resources Commissioner  
For Construction of the 8 Mile Pump Station Capital Improvements Projects  
Located in Southfield, Oakland County, Michigan

Prepared by: Evangelos Bantios Date: 6/22/2022  
Project Engineer – Evangelos Bantios, P.E. - OCWRC

Recommended by: \_\_\_\_\_ Date: \_\_\_\_\_  
Consulting Engineer – Joe Siwek, P.E. - Fishbeck

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
Chief Engineer – Joel Brown, P.E. - OCWRC

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

Accepted by: \_\_\_\_\_ Date: \_\_\_\_\_  
Josh Bohanon - Business Group Leader

of: Walsh Construction Company II, LLC

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
Manager - Sid Lockhart, P.E. - Special Projects Manager

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. 1 was approved by the Drainage Board on: \_\_\_\_\_

**Jim Nash, Oakland County Water Resources Commissioner  
S. Evergreen Interceptor Rehabilitation  
Beverly Hills, Birmingham & W. Bloomfield Township  
Oakland County, Michigan**

Regular Construction Estimate No. 5 ✓ May 1, 2022 to May 31, 2022 ✓  
 Department No.: 6010101 ✓ Account No.: 730373  
 Fund No.: 58410 Program No.: 149662  
 Project No.: 1-2914 Activity: FAC

Contractor: Account No.: 730373  
 Pipeline Management Company, LLC Date of Contract: January 10, 2022  
 2673 E. Maple Road Completion Date: June 10, 2022  
 Milford, MI 48381 Extended to: N/A

Original Contract Amount:		\$1,854,000.00
Previous Change Orders:	\$8,250.00	
Numbers: 1		
Change Orders This Estimate:	\$0.00	
Numbers:		
Total Net Change Orders:		\$8,250.00
<b>Adjusted Contract Amount:</b>		<b>\$1,862,250.00</b>

Sub-Total To Date: (Sheet 3 of 3 Column 7)	\$1,345,127.00	
Less Deductions: (Sheet 3 of 3 Column 7)	\$0.00	
Gross Estimate: (Work in Place)	72.23%	\$1,345,127.00
Less Amount Reserved: (10% of 1/2 Adjusted Contract Amount)		\$93,112.50
Total Amount Allowed To Date:	\$1,252,014.50	✓
Less Previous Estimates:	\$1,099,754.80	
Net Payment Request To Be Paid To Contractor:		\$152,259.70

Reserve Payment to Contractor		\$0.00
Balance of Contract To Date	\$517,123.00	Accounting Auditor: <i>BCE</i> 6/16/2022
Amount To Be Reserved (From Above)	\$93,112.50	✓
Less Previous Transfers To Reserve:	\$93,112.50	
Amount of Current Transfer:		\$0.00

Prepared by: Evangelos Bantios Date: 06/13/2022  
 Evangelos Bantios, P.E. - Project Engineer

Recommended by: Bradly Shepler Date: 06/14/2022  
 Bradly W. Shepler, P.E. - Hubbell, Roth & Clark, Inc.

Approved by: Joel Brown Date: 6/17/2022  
 Joel Brown, P.E. - Chief Engineer

Approved For Payment: Sid Lockhart Date: June 17, 2022  
 Sid Lockhart, P.E. - Special Project Manager

Regular Construction Estimate No. 5 Approved By Board On: \_\_\_\_\_

**Jim Nash, Oakland County Water Resources Commissioner  
S. Evergreen Interceptor Rehabilitation  
Beverly Hills, Birmingham & W. Bloomfield Township  
Oakland County, Michigan**

**Regular Construction Estimate No. 5**

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>Contract Item</b>		<b>Bid Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Quantity This Payment</b>	<b>Total Quantity Previous Estimate</b>	<b>Total Quantity to Date</b>	<b>Total Amount to Date</b>	<b>Total Amount This Estimate</b>
1	Mobilization, 5% Max	1	Lsume	\$65,000.00		1.00	1.00	\$65,000.00	0.00
2	Color Audio-Video Recording of Construction Areas	1	Lsum	\$5,000.00		1.00	1.00	\$5,000.00	0.00
3	Traffic Maintenance & Control	1	Lsum	\$83,000.00		1.00	1.00	\$83,000.00	0.00
4	Soil Erosion and Sedimentation Control	1	Lsum	\$40,000.00		1.00	1.00	\$40,000.00	0.00
5	HMA, Surface, Rem	584	Syd	\$25.00	484.30	0.00	484.30	\$12,107.50	12,107.50
6	Interceptor, Manhole Reconstruct	5	Ea	\$7,500.00		4.00	4.00	\$30,000.00	0.00
7	Tempoary Bypass Pumping Delivery System, Setup and Restore	1	Lsum	\$234,147.00	0.10	0.90	1.00	\$234,147.00	23,414.70
8	Bypass Pumping System, Pump Rental	70	days	\$4,000.00		61.00	61.00	\$244,000.00	0.00
9	Bypass Pumping System, Pump Operation	48	days	\$1,500.00		33.00	33.00	\$49,500.00	0.00
10	Birmingham Tunnel Diversion, Complete	1	Lsum	\$125,000.00	0.10	0.90	1.00	\$125,000.00	12,500.00
11	Internal Video Inspection 54-inch Dia, Sewer	4,148	Lft	\$10.00		4,148.00	4,148.00	\$41,480.00	0.00
12	Interceptor, Manhole Lining	475	Sft	\$80.00		816.40	816.40	\$65,312.00	0.00
13	Concrete Repair, Prep and Patch	33	Ea	\$1,500.00		30.00	30.00	\$45,000.00	0.00
14	Grouting System Setup, Joint (Incl. 4 Ports)	56	Ea	\$1,250.00		86.00	86.00	\$107,500.00	0.00
15	Chemical Grout	6,048	Gal	\$25.00		1,970.00	1,970.00	\$49,250.00	0.00
16	Aggregate Base, 21AA, 8 Inch, Special	584	Syd	\$25.00	484.30	0.00	484.30	\$12,107.50	12,107.50
17	HMA 5E3, Mod	203	Ton	\$200.00	160.65	0.00	160.65	\$32,130.00	32,130.00
18	Turf Restoration	1	Lsum	\$60,000.00	1.00	0.00	1.00	\$60,000.00	60,000.00
19	Permit Allowance Fee	1	Lsum	\$15,000.00		0.10	0.10	\$1,500.00	0.00
20	Exploratory Excavation for Utilities	10	Vft	\$600.00		0.00	0.00	\$0.00	0.00
21	Fracture Repair	50	Lft	\$150.00		0.00	0.00	\$0.00	0.00
22	Reinforcement Repair	20	Ea	\$1,750.00		0.00	0.00	\$0.00	0.00
23	Additional Grout Port	23	Ea	\$1.00		43.00	43.00	\$43.00	0.00
24	Concrete Repair, Prep and Patch, Directed	14	Ea	\$1,200.00		29.00	29.00	\$34,800.00	0.00
25	Chemical Grouting System Setup, Joint (Incl. 4 Ports), Directed	13	Ea	\$1,750.00		0.00	0.00	\$0.00	0.00
26	Chemical Grout, Directed	3,152	Gal	\$25.00		0.00	0.00	\$0.00	0.00
27	Cement Grout, Mobilization	1	Lsum	\$32,000.00		0.00	0.00	\$0.00	0.00
28	Cement Grout, De-Mobilization	1	Lsum	\$10,000.00		0.00	0.00	\$0.00	0.00
29	Cement Grout, Ports	50	Ea	\$500.00		0.00	0.00	\$0.00	0.00
30	Cement Grout	1,600	Cft	\$60.00		0.00	0.00	\$0.00	0.00
31	Spin-Cast Geopolymer Lining, 54 inch	25		\$1,500.00		0.00	0.00	\$0.00	0.00
32	Allowance for Odor Control	1	Lsum	\$50,000.00		0.00	0.00	\$0.00	0.00

**Change Orders:**

1A	Portable Changeable Message Signs	4	EA	\$1,500.00		4.00	4.00	\$6,000.00	0.00
1B	15 Type III signs	1	LS	\$2,250.00		1.00	1.00	\$2,250.00	0.00

**Stored Material:**

						0.00	0.00	\$0.00	0.00

SUB-TOTAL (Bid Items):

SUB-TOTAL (Change Orders):

SUB-TOTAL (Stored Material):

**SUB-TOTAL TO DATE**

\$1,336,877.00 152,259.70

\$8,250.00 0.00

\$0.00 0.00

**\$1,345,127.00 152,259.70**

**Deductions:**

						0.00	0.00	\$0.00	0.00

SUB-TOTAL (Deductions):

**\$0.00 0.00**

<u>Sub-Totals This Estimate</u>	
Bid Items	152,259.70
Change Orders	0.00
Stored Materials	0.00
Deductions	0.00
Payment this Estimate	152,259.70
Less Transfer to Reserve	0.00
<b>Net Payment</b>	<b>152,259.70</b>

**MEMO TO:** Mr. Jim Nash, Chairman  
of the Drainage Board for the EVERGREEN - FARMINGTON SANITARY DRAIN SYSTEM

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

**DATE:** June 28, 2022

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

<u>Date</u>	<u>Ref No.</u>	<u>Paid To</u>	<u>For</u>	<u>Amount</u>
	TBP	D'Angelo Brothers Inc	Invoice # 8309 - Contracted Services	\$ 448.00
	TBP	Walsh Construction Company	Invoice # 2220235- #3 - Contracted Services	\$ 123,755.30
			<b>Total</b>	<b><u><u>\$ 124,203.30</u></u></b>

## **8. Owens Relief Drain**

## **AGENDA**

### **DRAINAGE BOARD FOR THE OWENS RELIEF DRAINS**

June 28, 2022

1. Call meeting to order
2. Approve minutes of meeting of June 25, 2019
3. Public Comments
4. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$490.31
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn



**MINUTES OF THE MEETING OF THE DRAINAGE BOARD  
FOR THE OWENS RELIEF DRAINS**

June 25, 2019

A meeting of the Drainage Board for the Owens Relief Drains 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 25<sup>th</sup> 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 February 26, 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.

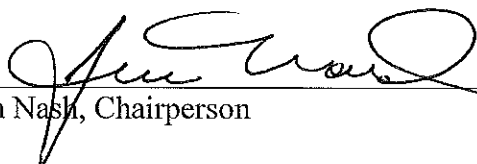
A request for reimbursement of the Drain Revolving Fund in the amount of \$555.88 (as attached) was presented. It was moved by Markham, supported by Woodward, that the Drain Revolving Fund be reimbursed in the amount of \$555.88.

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 Owens Relief Drains, Oakland County, Michigan, held on the 25<sup>th</sup> 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 Owens Relief Drains Drainage District.

  
\_\_\_\_\_  
Jim Nash, Chairperson

Dated: 7/3, 2019

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

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

**DATE:** June 28, 2022

**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 22, 2022.

<u>Date</u>	<u>Ref No.</u>	<u>Paid To</u>	<u>For</u>	<u>Amount</u>
	TBP	Metro Environmental Services Inc	Invoice # 74214 - Contracted Services	\$ 490.31
<b>Total</b>				<b>\$ 490.31</b>

## **9. Pebble Creek Drain**

## **AGENDA**

### **DRAINAGE BOARD FOR THE PEBBLE CREEK DRAIN**

June 28, 2022

1. Call meeting to order
2. Approve minutes of meeting of May 24, 2022
3. Public Comments
4. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$1,567.59
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD  
FOR THE PEBBLE CREEK DRAIN**

May 24, 2022

A meeting of the Drainage Board for the Pebble Creek 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 24<sup>th</sup> day of May 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

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

David Woodward, Chairperson of the Oakland County Board of Commissioners

ABSENT: None.

Minutes of the meeting held March 23, 2021, were presented for consideration. It was moved by Markham, 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 memorandum from Lynne Seymour, P.E., Chief Engineer, dated May 24, 2022, requesting the Board to authorize the Chairperson to sign the resolution adopting the final State Revolving Fund project plan was presented. It was moved by Markham, supported by Woodward, to authorize the Chairperson to sign the resolution adopting the final State Revolving Fund project plan as presented.

ADOPTED: Yeas - 3  
Nays - 0

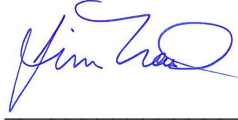
A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$1,439.44 (as attached) was presented. It was moved by Markham, supported by Woodward, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$1,439.44.

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.



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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 for the Pebble Creek Drain, Oakland County, Michigan, held on the 24<sup>th</sup> day of May 2022, 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 Pebble Creek Drain Drainage District.



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Jim Nash, Chairperson

Dated: May 24, 2022



**MEMO TO:** Mr. Jim Nash, Chairman  
of the Drainage Board for the PEBBLE CREEK DRAIN

**FROM:** Shawn Phelps, Chief of Fiscal Services  
Drain Accounting

**DATE:** June 28, 2022

**SUBJECT:** Request for Reimbursement of Drain Revolving Fund

Request for Board approval of payment of the following invoices:

<u>Payable To</u>	<u>Ref No.</u>	<u>For</u>	<u>Amount</u>
Marine Pollution Control	TBP	Invoice # 40117 - Professional Services	\$ 1,567.59
		<b>Total</b>	<b>\$ 1,567.59</b>