

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

1. Evergreen- Farmington Sanitary Drain
2. Mainland Drain
3. Beechmont Drain
4. Keego Harbor Drain
5. Schmid Drain
6. Acacia Park CSO Drain
7. Birmingham CSO Drain
8. Bloomfield Village CSO Drain
9. Clinton River Water Resource Recovery Facility
10. George W. Kuhn Drain
11. Caddell Drain
12. City of Pontiac Wastewater Treatment Facility
13. McCulloch Drain
14. Wilmont 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, MARCH 22, 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: March 16, 2022

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# Microsoft Teams meeting

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**1. Evergreen-Farmington  
Sanitary Drain**

## AGENDA

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

March 22, 2022

1. Call meeting to order
2. Approve minutes of meeting of February 28, 2022
3. Public Comments
4. Meadowbrook proposal for the April 27, 2022 insurance renewal
5. Present Memorandum from Carrie Cox, P.E., Chief Engineer, dated March 22, 2022, requesting the Board to approve the agreements between the Drainage District and the Bloomfield Village CSO Drainage District, Acacia Park CSO Drainage District and the Birmingham CSO Drainage District and authorize the Chairperson of the Board to execute the agreements
6. Present Memorandum from Carrie Cox, P.E., Chief Engineer, dated March 22, 2022, requesting the Board to approve the allocation of \$60,000 in Capital funds to install the replacement rain gauges at the two locations within the City of Troy
7. Present Change Order No.1 from Pipeline Management Company, LLC for the construction of the S. Evergreen Interceptor Rehabilitation for a net increase in the amount of \$8,250
8. Present Construction Estimate No. 2 from Pipeline Management Company, LLC in the amount of \$181,436 with a transfer to the Oakland County Treasurer in the amount of \$20,159.56
9. Other business
10. Approve pro rata payment to Drainage Board members
11. Adjourn



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

February 28, 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 11:00 a.m. on the 28<sup>th</sup> day of February 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

David Woodward, Chairperson of the Oakland County Board of Commissioners

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

ABSENT: None.

Minutes of the meeting held January 25, 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 Evans Bantios, P.E., Project Engineer, dated February 22, 2022, requesting the Board to award the Walnut Lake No. 3 Lift Station Replacement project to L.M. Clarke and authorize the Drainage District Chairperson to sign the Agreement between the Drainage District and L.M. Clarke in the amount of \$1,209,000 was presented. It was moved by Markham, supported by Woodward, to award the Walnut Lake No. 3 Lift Station Replacement project to L.M. Clarke and authorize the Drainage District Chairperson to sign the Agreement between the Drainage District and L.M. Clarke in the amount of \$1,209,000 as presented.

ADOPTED: Yeas - 3  
Nays - 0

A memorandum from Evans Bantios, P.E. Project Engineer, dated February 22, 2022, requesting the Board to approve the contract with Meadowbrook Inc. to provide insurance consultant, agency services and construction safety consultant services for the 8 Mile Road Outlet Conveyance, Lathrup SRT Improvements and Walnut Lake No. 1 Pump Station Corrective Action Plan projects and authorize the Chairperson to sign the contract was presented. It was moved by Markham, supported by Nash, to approve the contract with Meadowbrook Inc. to provide insurance consultant, agency services and construction safety consultant services for the 8 Mile Road Outlet Conveyance, Lathrup SRT Improvements and

Walnut Lake No. 1 Pump Station Corrective Action Plan projects and authorize the Chairperson to sign the contract as presented.

ADOPTED: Yeas - 2  
Nays - 0

Engineering Work Order No. D-442 for NTH Consultants, Ltd. related to the 8 Mile Corrective Action Plan Conveyance project in the amount of \$1,063,500 (as attached) was presented. It was moved by Markham, supported by Nash, that Engineering Work Order D-442 be approved in the amount of \$1,063,500 as presented.

ADOPTED: Yeas - 2  
Nays - 0

Engineering Work Order No. D-443 for PMA Consultants related to the 8 Mile Corrective Action Plan Conveyance project in the amount of \$277,200 was presented. It was moved by Markham, supported by Nash, that Engineering Work Order D-443 be approved in the amount of \$277,200.

ADOPTED: Yeas - 3  
Nays - 0

Construction Estimate No.1 for Pipeline Management Company, LLC in the amount of \$195,468.08 with a transfer to the Oakland County Treasurer in the amount of \$21,718.68 was presented. It was moved by Markham, supported by Woodward, to approve Construction Estimate No.1 for Pipeline Management Company, LLC in the amount of \$195,468.08 with a transfer to the Oakland County Treasurer in the amount of \$21,718.68 as presented.

ADOPTED: Yeas - 3  
Nays - 0

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

ADOPTED: Yeas - 3  
Nays - 0

There being no further business, the meeting was adjourned.



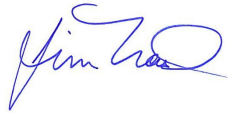
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Jim Nash, Chairperson

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 28<sup>th</sup> day of February 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: February 28, 2022



# **Evergreen-Farmington Sanitary Drain Drainage District**

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*Building 95 West, One Public Works Drive, Waterford, MI 48328*

## **Insurance Proposal for Property, General Liability, Excess Liability, and Pollution Liability Coverage**

**4/27/2022**

to

**4/27/2023**

*(Dated 3/16/22)*

# Evergreen-Farmington Sanitary Drain Drainage District

## Public Entity Liability

4/27/2022 to 4/27/2023

**Carrier: Lexington Insurance Company – (Best Rating A+ XV)**

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### GENERAL LIABILITY:

**Form:**                       Occurrence                       Claims Made

**Limits:**

\$ 1,000,000	<i>occurrence</i>	Each Occurrence
1,000,000	<i>aggregate</i>	Errors and Omissions
1,000,000	<i>occurrence</i>	Each Wrongful Act
1,000,000	<i>aggregate</i>	Bodily Injury, Property Damage, and Advertising Injury

**Self-Insured Retention:**      \$250,000      per occurrence

**Defense Expenses\*:**      Inside Self-Insured Retention  
   Outside Policy Limit

*\*Defense Expense does not reduce policy limit, but does reduce the SIR*

**Claims Administration:**      AIG Claims Services

**Exposure:**      Miles of Pipe: 166

## Public Entity Liability *(continued)*

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### Coverage Forms & Exclusions:

- Economic Sanctions Endorsement
- Deletion of Specific OFAC Language
- Application Retained Limit
- Violation of Communication Exclusion
- Indiana Amendatory endorsement
- Crisis Response Coverage Endorsement
- Access or Disclosure of Confidential or Personal Information Total Exclusion
- Perfluorinated Compounds Exclusion
- Automobile Exclusion
- Defense additional limits within the Retention
- Exclusion – Designated Ongoing Operations

### Subjectivities:

- Signed TRIA Acceptance Form

### Premium:

Total Advance Premium	\$123,000
TRIA	Included
<b>Total</b>	<b>\$123,000</b>

# Evergreen-Farmington Sanitary Drain Drainage District

## Excess Liability \$10M x \$1M Primary 04/27/2022 to 04/27/2023

**Carrier: Ventapro Specialty Insurance Company – (Best Rating A XV)**

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### Limits:

\$10,000,000	<i>each occurrence</i>
10,000,000	<i>annual aggregate limit</i>
10,000,000	<i>products – completed operations hazard aggregate limit</i>
10,000,000	<i>public officials wrongful act limit</i>
Excess of Underlying	<i>retention/deductible</i>

### Underlying Coverages & Limits:

#### General Liability

\$1,000,000		Each Occurrence
1,000,000	<i>aggregate</i>	General Aggregate
1,000,000	<i>aggregate</i>	Personal – Advertising Injury
250,000	<i>SIR</i>	Each Occurrence

#### Public Officials Liability

\$1,000,000		Each Occurrence
1,000,000	<i>aggregate</i>	General Aggregate
250,000	<i>SIR</i>	Each Occurrence

**Defense Treatment:** Inside Retention, Outside Limit

**Claims Administration:** AIG Claims Services

## **Excess Liability - \$10M x \$1M Primary** *(continued)*

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### **Coverage Forms & Exclusions:**

- Public Risk Special Excess Retained Limit Coverage Form
- Exclusion – Communicable Disease and Infectious Agent
- Michigan Amendatory Endorsement
- Disclosure Pursuant to Terrorism Risk Insurance Act

### **Subject to at the Time of Binding:**

- Signed and Dated Terrorism Selection/Rejection Form

<b>Premium:</b>	\$119,839.00
<b>TRIA:</b>	<u>3,064.00</u>
<b>Total:</b>	<b>\$122,903.00</b>



# Evergreen-Farmington Sanitary Drain Drainage District

## Excess Liability \$5M x \$10M 04/27/2022 to 04/27/2023

**Carrier: HDI Global Specialty SE – (Best Rating A X)**

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### Limits:

\$5,000,000		<i>each occurrence</i>
5,000,000		<i>annual aggregate limit</i>
Excess of Underlying		<i>retention/deductible</i>

### Underlying Coverages & Limits:

#### Excess Liability

\$10,000,000		Each Occurrence
10,000,000	<i>aggregate</i>	Aggregate

#### General Liability

\$1,000,000		Each Occurrence
1,000,000	<i>aggregate</i>	General Aggregate
1,000,000	<i>aggregate</i>	Products – Completed Operations
1,000,000	<i>aggregate</i>	Personal – Advertising Injury
250,000	<i>SIR</i>	Each Occurrence

#### Public Officials Liability

\$1,000,000		Each Occurrence
1,000,000	<i>aggregate</i>	General Aggregate
250,000	<i>SIR</i>	Each Occurrence

**Claims Administration:**     AIG Claims Services

## **Excess Liability - \$5M x \$10M** *(continued)*

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### **Forms, Endorsements, and Exclusions:**

SL CX SU 4000	Commercial Follow Form Excess Liability Declarations
SL CX AM 4022	Excess Coverage Limitation Endorsement
SL CX EX 4012	Exclusion – Access or Disclosure of Confidential or Personal Information and Data Relation Liability
SL CX EX 4013	Exclusion – Cross Suits
SL CX EX 4016	Exclusion – Unmanned Aircraft
SL CX EX 4033	Exclusion – Communicable Disease
SL CX EX 4037	Exclusion of Punitive Damages Related to Certified Acts of Terrorism
ILCH 2019	Sanction and Limitation Exclusion Clause
ILCH SOS 1000	Service of Suit Clause

### **Subjectivities:**

- Signed and Dated Terrorism Selection/Rejection Form
- Signed No Known Loss Letter

<b>Premium:</b>	\$47,227.00
<b>TRIA:</b>	1,183.00
<b>Surplus Lines Taxes and Fees:</b>	<u>1,210.25</u>
<b>Total:</b>	<b>\$49,620.25</b>

# Evergreen-Farmington Sanitary Drain Drainage District

## Excess Liability

**\$5M x \$15M**

**04/27/2022 to 04/27/2023**

**Carrier: Hallmark Specialty Insurance Company – (Best Rating A- XIII)**

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**Limits:**

	\$5,000,000		<i>each occurrence</i>
	5,000,000		<i>annual aggregate limit</i>
Excess of Underlying			<i>retention/deductible</i>

**Underlying Coverages & Limits:**

**Excess Liability**

	\$5,000,000		Each Occurrence
	5,000,000	<i>aggregate</i>	Aggregate

**Excess Liability**

	\$10,000,000		Each Occurrence
	10,000,000	<i>aggregate</i>	Aggregate

**General Liability**

	\$1,000,000		Each Occurrence
	1,000,000	<i>aggregate</i>	General Aggregate
	1,000,000	<i>aggregate</i>	Products – Completed Operations
	1,000,000	<i>aggregate</i>	Personal – Advertising Injury
	250,000	<i>SIR</i>	Each Occurrence

**Public Officials Liability**

	\$1,000,000		Each Occurrence
	1,000,000	<i>aggregate</i>	General Aggregate
	250,000	<i>SIR</i>	Each Occurrence

**Claims Administration:**     AIG Claims Services

## Excess Liability - \$5M x \$15M (continued)

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### Forms, Endorsements, and Exclusions:

PE 00 01 01 16 (01-16)	Excess Public Entity Liability Declarations
PE 00 04 01 16 (01-16)	Schedule of Forms and Endorsements
PE 00 03 01 16 (01-16)	Schedule of Underlying Insurance
PE 00 05 05 16 (05-16)	Exclusion – Access or Disclosure of Confidential or Personal Information and Data-Related Liability
IX 21 08 07 09 (07-09)	Asbestos Exclusion
CLAIM REPORTING 06 20	Claim Reporting
PE 00 02 04 17 (04-17)	Excess Public Entity Liability
PE 00 18 03 20	Exclusion - Communicable Disease
PE 00 12 08 19	Exclusion - Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)
IX 21 05 07 09 (07-09)	Fungi or Bacteria Exclusion
IX 21 13 07 09 (07-09)	Lead Exclusion
HX SS AA 12 09 (12-09)	Service of Suit
SL18914 (10-17)	Surplus Lines Notification
IL P 001 01 04 (01-04)	U.S. Treasury Dept. ("OFAC")
HS 00 01 01 16 (01-16)	Signature Page
HX 00 01 07 12 (07-12)	Privacy Policy Disclosure Notice

### Subjectivities:

- Signed Terrorism Selection/Rejection Form

<b>Premium:</b>	\$50,000.00
<b>TRIA:</b>	1,000.00
<b>Surplus Lines Taxes and Fees:</b>	<u>1,275.00</u>
<b>Total:</b>	<b>\$52,275.00</b>

# Evergreen-Farmington Sanitary Drain Drainage District

## Pollution Liability 04/27/2022 to 04/27/2023

**Carrier: ACE American Insurance Company – (Best Rating A++ XV)**

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**Form:**                       Occurrence                       Claims Made

### Limits:

Each Pollution Event Limit	\$10,000,000
Aggregate Policy Limit	10,000,000

### Insuring Agreement Coverages:

- Coverage A
  - Premises Pollution Condition Liability
  - Premises Pollution Condition First-Party Claims
- Coverage B
  - Transportation Liability
  - Transportation First-Party Claims
- Coverage C
  - Non-Owned Disposal Sites Liability

**Deductible:**                      \$250,000

**Retro Date:**                      4/27/21

**Covered Location:**                      As per the Statement of Values Titled “Water Resources – Operations & Maintenance, Evergreen Farmington Sanitary”. Document of File as “Evergreen Farmington Drain – FY2021 SOV V2” dated 3/2/2022.

## **Pollution Liability** *(continued)*

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### **Policy Forms & Endorsements:**

- Minimum Earned Premium 100%
- Business Interruption Coverage Limitations Endorsement
- Communicable, Infectious or Contagious Diseases Exclusionary Endorsement
- Indoor Environmental Conditions Limitation Endorsement
- Public Entity Coverage Amendatory Endorsement
- Trade or Economic Sanctions Endorsement
- Michigan Changes – Cancellation and Non-Renewal
- Signatures
- Michigan Disclaimer Notice Commercial Lines Deregulation

### **Subject To:**

1. Signed and Completed Chubb Environmental Application
2. Signed Terrorism Acceptance Form

<b>Premium:</b>	\$80,865.00	Premium
	<u>4,043.00</u>	Terrorism
	<b>\$84,908.00</b>	<b>Total</b>

# Evergreen-Farmington Sanitary Drain Drainage District

4/27/2022 to 4/27/2023

## Premium Summary

POLICIES	Expiring 2021-2022	Proposed 2022-2023	Percentage Change
Property ACE American Ins. Co. \$50M Limit \$250k SIR	\$227,322 TIV: \$1,665,362,263 Rate: .01365	\$252,293 TIV: \$1,760,287,912 Rate: .01433	5.7% Increase in TIV  5% Increase in Rate
Public Entity Liability	\$130,174 Argonaut Ins. Co. \$1M Per Occurrence Limit \$2M Aggregate Policy Limit \$2M Prod/Comp. Ops. Limit \$250k SIR	\$123,000 Lexington Ins. Co. \$1M Per Occurrence Limit \$1M Aggregate Policy Limit \$1M E&O Limit \$250k SIR	5.5% Decrease in Rate
1 <sup>st</sup> Excess Liability Layer Ventapro Specialty Ins. Co.	\$103,599 \$10M Per Occurrence Limit \$10M Aggregate Limit	\$122,903 \$10M Per Occurrence Limit \$10M Aggregate Limit	18.6% Increase in Rate
2 <sup>nd</sup> Excess Liability Layer HDI Global Specialty SE	\$54,397 \$10M Per Occurrence Limit \$10M Aggregate Limit	\$49,620 \$5M Per Occurrence Limit \$5M Aggregate Limit	87.3% Increase in Rate for excess 10M total
3 <sup>rd</sup> Excess Liability Layer Hallmark Specialty Ins. Co.	N/A	\$52,275 \$5M Per Occurrence Limit \$5M Aggregate Limit	
Pollution Liability \$10M ACE American Ins. Co. \$10M Per Event Limit \$10M Aggregate Limit \$250k Deductible	\$81,831	\$84,908	3.8% Increase in Rate
<b>TOTAL</b>	<b>\$597,323</b>	<b>\$684,999</b>	14.7% Increase in overall premium

[1] Lexington Insurance requires the use of AIG's TPA Services which will carry an additional service fee of \$1,500.

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

**TO:** Jim Nash, Chairman  
Evergreen-Farmington Sanitary Drain Drainage Board

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

**SUBJECT:** Storage and Operation Agreement

**DATE:** March 22, 2022

The Evergreen-Farmington Sewage Disposal System (EFSDS) transitioned to the Evergreen-Farmington Sanitary Drain (EFSD). Attached is an updated operating agreement to reflect the acceptance of flow, reimbursement to the EFSD from the Bloomfield Village CSO Drain, Acacia Park CSO Drain and the Birmingham CSO Drain, and EFSD reimbursement to the Bloomfield Village CSO Drain for use from the Walnut Lake Pump Station No.1. The agreement was reviewed through a series of stakeholder meetings with representatives from the EFSD, Bloomfield Village CSO Drain, Acacia Park CSO Drain and Birmingham CSO Drain communities. The stakeholder group and WRC staff recommend approval of this agreement.

**Recommended Actions:**

**Approve the agreements between the Evergreen-Farmington Sanitary Drain Drainage District and the Bloomfield Village CSO Drain Drainage District, Acacia Park CSO Drain Drainage District and the Birmingham CSO Drain Drainage District as presented and authorize the Chairperson of the Board to execute the agreements.**



**EVERGREEN FARMINGTON SEWAGE DISPOSAL SYSTEM AND ACACIA PARK  
CSO DRAIN DRAINAGE DISTRICT RETENTION TREATMENT BASIN STORAGE  
AGREEMENT**

This Agreement is made this March \_\_, 2022 by and between the Evergreen-Farmington Sanitary Drain Drainage District (“EFSD”), a Michigan statutory corporation organized pursuant to Chapter 20 of the Michigan Drain Code, Act No. 40 of the Public Acts of Michigan of 1956, as amended (“Drain Code”), by and through its drain board and the Acacia Park CSO Drain Drainage District, a Michigan statutory corporation organized pursuant to Act 40 of 1956, as amended, by and through its drain board (“Drainage District”). In this Agreement, either the EFSD or Drainage District may also be referred to individually as a “Party” or jointly as the “Parties.”

**RECITATIONS**

Whereas, EFSD is a regional system of sewers formerly known as the Evergreen-Farmington Sewage Disposal System which was operated and maintained by the County Agency in accordance with Act 342 of the Public Acts of 1939, as amended, and Act 185 of the Public Acts of 1957, as amended; and

Whereas, the Evergreen-Farmington Sewage Disposal System was transferred to the EFSD by operation of law under the Drain Code pursuant to petition, agreement entered into pursuant to Section 471 of the Drain Code, and assignment; and

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

Whereas the EFSD and the Drainage District entered into that certain the Restatement of the Retention Treatment Basin Capacity Use Memorandum of Understanding Evergreen-Farmington Sewage Disposal System dated November 28, 2017 (“MOU”) which permitted EFSD to regulate and control flow from the RTBs and transport wet weather sanitary flow from the EFSD via the Walnut Lake #1 force main to the Drainage District for an authorized duration and during events that exceed the design storm defined by the Administrative Consent Order with the state of Michigan, ACO-04995, as amended (“ACO”).

Whereas, the EFSD is undertaking projects to further comply with the ACO, necessitating the need for a new agreement with the Drainage District.

Now therefore, the Parties agree as follows:

## AGREEMENT

1. Acceptance of Flow. The EFSD agrees to accept dewatering and other flow from the Drainage District as provided in this Agreement.
2. Acknowledgement. The Drainage District expressly acknowledges that the Evergreen-Farmington Sewage Disposal System was transferred to the EFSD by operation of law under the Drain Code pursuant to petition, agreement entered into pursuant to Section 471 of the Drain Code, and assignment. This Agreement is the expressed mutual written consent of the Parties to terminate any prior RTB Agreement and the MOU effective date of this Agreement.
3. EFSD Reimbursement to Drainage District. There is to be no EFSD reimbursement to the Drainage District for its allocated share of the EFSD wet weather flow.
4. Drainage District Reimbursement to EFSD. The Drainage District must pay the EFSD for its share of the operation, maintenance, and administration of the EFSD and related wastewater services at such amounts as the EFSD may establish from time to time based on the aggregate quantity of wastewater on a multi-year rolling average method entering the EFSD attributable from the Drainage District or any other method as determined by the EFSD.
5. Limit on Flow Accepted, Dewatering, and Drainage District Operations. The Drainage District must be operated in accordance with the EFSD Cohesive Operating Protocol, as amended. The amount of flow that can be accepted from the Drainage District by the EFSD when the Drainage District is dewatering or otherwise is limited by the ACO, and is further limited to the provisions of the Comprehensive CSO RTB Operational Plan for the Drainage District, as amended, and in compliance with the Drainage District's NPDES Permit, Permit No. MI0048046, as amended.
6. Term. The term of this Agreement will continue until December 31, 2051, unless extended by mutual written consent of the Parties.
7. General Conditions.
  - a. This Agreement must be construed under Michigan law, and if any part, term or provision of this Agreement is determined by a court of competent jurisdiction to be unlawful or unenforceable, such determination shall not affect the validity and enforceability of the remaining parts, terms, or provisions of this Agreement.
  - b. This Agreement replaces and supersedes all prior oral or written agreements between the Parties concerning its purpose.
  - c. This Agreement sets forth the entire understanding between the Parties concerning its purpose. This Agreement may be amended only by written agreement of the Parties.
  - d. There are no intended third party beneficiaries to this Agreement.

**Commented [CCR1]:** Combined or wastewater and storm water

1. This Agreement does not, and is not intended to, impair, divest, delegate, or contravene any constitutional, statutory, or other legal right, privilege power, obligation, duty, or immunity of the Parties. The obligations in this Agreement are in the exercise or discharge of a governmental function and to serve the public health and welfare.
- e. This Agreement is effective as of the date first written above.
- f. This Agreement is binding on, and for the benefit of, the Parties and their respective their successors and assigns.

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

*[signatures on next page]*

**Evergreen Farmington Sanitary Drain Drainage District**

By: \_\_\_\_\_ Date: March \_\_, 2022  
Jim Nash  
Drainage Board of the Evergreen-Farmington  
Sanitary Drain Drainage District

Approved at a meeting of the drainage board on March \_\_, 2022.

**Acacia Park CSO Drainage District**

By: \_\_\_\_\_ Date: March \_\_, 2022  
Jim Nash  
Drainage Board of the Acacia Park CSO  
Drainage District

Approved at a meeting of the drainage board on March \_\_, 2022.

**EVERGREEN FARMINGTON SEWAGE DISPOSAL SYSTEM AND CITY OF  
BIRMINGHAM RETENTION TREATMENT BASIN STORAGE AGREEMENT**

This Agreement is made this March \_\_, 2022 by and between the Evergreen-Farmington Sanitary Drain Drainage District (“EFSD”), a Michigan statutory corporation organized pursuant to Chapter 20 of the Michigan Drain Code, Act No. 40 of the Public Acts of Michigan of 1956, as amended (“Drain Code”), by and through its drain board and the City of Birmingham CSO Drain Drainage District, a Michigan statutory corporation organized pursuant to Act 40 of 1956, as amended, by and through its drain board (“Drainage District”). In this Agreement, either the EFSD or Drainage District may also be referred to individually as a “Party” or jointly as the “Parties.”

**RECITATIONS**

Whereas, EFSD is a regional system of sewers formerly known as the Evergreen-Farmington Sewage Disposal System which was operated and maintained by the County Agency in accordance with Act 342 of the Public Acts of 1939, as amended, and Act 185 of the Public Acts of 1957, as amended; and

Whereas, the Evergreen-Farmington Sewage Disposal System was transferred to the EFSD by operation of law under the Drain Code pursuant to petition, agreement entered into pursuant to Section 471 of the Drain Code, and assignment.

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

Whereas the EFSD and the Drainage District entered into that certain the Restatement of the Retention Treatment Basin Capacity Use Memorandum of Understanding Evergreen-Farmington Sewage Disposal System dated November 28, 2017 (“MOU”) which permitted EFSD to regulate and control flow from the RTBs and transport wet weather sanitary flow from the EFSD via the Walnut Lake #1 force main to the Drainage District for an authorized duration and during events that exceed the design storm defined by the Administrative Consent Order with the state of Michigan, ACO-04995, as amended (“ACO”).

Whereas, the EFSD is undertaking projects to further comply with the ACO, necessitating the need for a new agreement with the Drainage District.

Now therefore, the Parties agree as follows:

## AGREEMENT

1. Acceptance of Flow. The EFSD agrees to accept dewatering and other flow from the Drainage District as provided in this Agreement.
2. Acknowledgement. The Drainage District expressly acknowledges that the Evergreen-Farmington Sewage Disposal System was transferred to the EFSD by operation of law under the Drain Code pursuant to petition, agreement entered into pursuant to Section 471 of the Drain Code, and assignment. This Agreement is the expressed mutual written consent of the Parties to terminate any prior RTB Agreement and the MOU effective date of this Agreement.
3. EFSD Reimbursement to Drainage District. There is to be no EFSD reimbursement to the Drainage District for its allocated share of the EFSD wet weather flow.
4. Drainage District Reimbursement to EFSD. The Drainage District must pay the EFSD for its share of the operation, maintenance, and administration of the EFSD and related wastewater services at such amounts as the EFSD may establish from time to time based on the aggregate quantity of wastewater on a multi-year rolling average method entering the EFSD attributable from the Drainage District or any other method as determined by the EFSD.
5. Limit on Flow Accepted, Dewatering, and Drainage District Operations. The Drainage District must be operated in accordance with the EFSD Cohesive Operating Protocol, as amended. The amount of flow that can be accepted from the Drainage District by the EFSD when the Drainage District is dewatering or otherwise is limited by the ACO, and is further limited to the provisions of the Comprehensive CSO RTB Operational Plan for the Drainage District, as amended, and in compliance with the Drainage District's NPDES Permit, Permit No. MI0048046, as amended.
6. Term. The term of this Agreement will continue until December 31, 2051, unless extended by mutual written consent of the Parties.
7. General Conditions.
  - a. This Agreement must be construed under Michigan law, and if any part, term or provision of this Agreement is determined by a court of competent jurisdiction to be unlawful or unenforceable, such determination shall not affect the validity and enforceability of the remaining parts, terms, or provisions of this Agreement.
  - b. This Agreement replaces and supersedes all prior oral or written agreements between the Parties concerning its purpose.
  - c. This Agreement sets forth the entire understanding between the Parties concerning its purpose. This Agreement may be amended only by written agreement of the Parties.
  - d. There are no intended third party beneficiaries to this Agreement.

1. This Agreement does not, and is not intended to, impair, divest, delegate, or contravene any constitutional, statutory, or other legal right, privilege power, obligation, duty, or immunity of the Parties. The obligations in this Agreement are in the exercise or discharge of a governmental function and to serve the public health and welfare.
- e. This Agreement is effective as of the date first written above.
- f. This Agreement is binding on, and for the benefit of, the Parties and their respective their successors and assigns.

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

*[signatures on next page]*

**Evergreen Farmington Sanitary Drain Drainage District**

By: \_\_\_\_\_  
Jim Nash  
Drainage Board of the Evergreen-Farmington  
Sanitary Drain Drainage District

Date: March \_\_, 2022

Approved at a meeting of the drainage board on March \_\_, 2022.

**City of Birmingham CSO Drainage District**

By: \_\_\_\_\_  
Jim Nash  
Drainage Board of the City of Birmingham CSO  
Drainage District

Date: March \_\_, 2022

Approved at a meeting of the drainage board on March \_\_, 2022.



**EVERGREEN-FARMINGTON SANITARY DRAIN DRAINAGE DISTRICT AND  
BLOOMFIELD VILLAGE CSO DRAIN DRAINAGE DISTRICT RETENTION  
TREATMENT BASIN STORAGE AND OPERATION AGREEMENT**

This Agreement is made this March \_\_, 2022 by and between the Evergreen-Farmington Sanitary Drain Drainage District (“EFSD”), a Michigan statutory corporation organized pursuant to Chapter 20 of the Michigan Drain Code, Act No. 40 of the Public Acts of Michigan of 1956, as amended (“Drain Code”), by and through its drain board and the Bloomfield Village CSO Drain Drainage District, a Michigan statutory corporation organized pursuant to Act 40 of 1956, as amended, by and through its drain board (“Drainage District”). In this Agreement, either the EFSD or Drainage District may also be referred to individually as a “Party” or jointly as the “Parties.”

**RECITATIONS**

Whereas, EFSD is a regional system of sewers formerly known as the Evergreen-Farmington Sewage Disposal System which was operated and maintained by the County Agency in accordance with Act 342 of the Public Acts of 1939, as amended, and Act 185 of the Public Acts of 1957, as amended; and

Whereas, the Evergreen-Farmington Sewage Disposal System was transferred to the EFSD by operation of law under the Drain Code pursuant to petition, agreement entered into pursuant to Section 471 of the Drain Code, and assignment.

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

Whereas the EFSD and the Drainage District entered into that certain Evergreen Farmington Sewage Disposal System and Bloomfield Village Retention Basin Storage Agreement dated June 23, 2020 (“June 23, 2020 RTB Agreement”) for two main purposes: (1) authorizing EFSD to transport wet weather sanitary flow from the EFSD via the Walnut Lake Pump Station No. 1 force main to the Drainage District for an authorized duration and during events that exceed the design storm defined by the Administrative Consent Order with the state of Michigan, ACO-04995, as amended (“ACO”); and (2) setting forth the basis and methodology for compensating the Drainage District for the use of the Drainage District for storage and treatment of sanitary flow from EFSD.

Whereas, the EFSD is undertaking projects to further comply with the ACO, necessitating the need for a new agreement with the Drainage District.

Now therefore, the Parties agree as follows:

## AGREEMENT

1. Acceptance of Flow. The Drainage District agrees to accept flow from the EFSD via the Walnut Lake Pump Station No. 1 force main to the Drainage District to be stored and treated at the Drainage District's RTB. The EFSD agrees to accept dewatering and other flow from the Drainage District as provided in this Agreement.
2. Acknowledgement. The Drainage District expressly acknowledges that the Evergreen-Farmington Sewage Disposal System was transferred to the EFSD by operation of law under the Drain Code pursuant to petition, agreement entered into pursuant to Section 471 of the Drain Code, and assignment. The Drainage District also expressly acknowledges that the EFSD will no longer reimburse the Drainage District for regulator closures. This Agreement is the expressed mutual written consent of the Parties to terminate the June 23, 2020 RTB Agreement. The June 23, 2020 RTB Agreement is terminated as of the effective date of this Agreement. This Agreement also terminates the Restatement of the Retention Treatment Basin Capacity Use Memorandum of Understanding Evergreen-Farmington Sewage Disposal System dated November 28, 2017 ("MOU").
3. EFSD Reimbursement to Drainage District. The EFSD must reimburse the Drainage District for its allocated share of the EFSD flow in accordance with the following:
  - a. The volume is recorded each time flow from the EFSD is diverted to the Drainage District. The total quarterly volume will be used to calculate the charge to EFSD by the Drainage District.
  - b. A cost of \$22.54 per thousand cubic feet ("cost per MCF") has been established for the period of July 1, 2021 through June 30, 2022. The cost per MCF must be adjusted using the method in **Exhibit A** for each subsequent rate year (July 1 through June 30).
  - c. The EFSD must pay the additional capital cost to the Drainage District directly attributed to capital improvements to the Drainage District's RTB to comply with future requirements of the state of Michigan as stated in an ACO amendment or the Drainage District's Permit MI0048046 resulting from the Drainage District accepting flow from the EFSD via the Walnut Lake Pump Station No. 1 force main to be stored and treated at the Drainage District's RTB.
  - d. The EFSD must pay the incremental additional cost directly attributed to new operational requirements (e.g. treatment) of the Drainage District's RTB to comply with future requirements of the state of Michigan as stated in an ACO amendment or the Drainage District's Permit MI0048046 resulting from the Drainage District accepting flow from the EFSD via the Walnut Lake Pump Station No. 1 force main to be stored and treated at the Drainage District's RTB.
4. Drainage District Reimbursement to EFSD. The Drainage District must pay the EFSD for its share of the operation, maintenance, and administration of the EFSD and related wastewater services at such amounts as the EFSD may establish from time to time based on the aggregate quantity of wastewater on a multi-year rolling average method entering

the EFSD attributable from the Drainage District or any other method as determined by the EFSD.

5. Limit on Flow Accepted, Dewatering, and Drainage District Operations. The amount of flow accepted from the EFSD by the Drainage District is limited to the operational capacity of the Walnut Lake Pump Station No. 1 force main. The Drainage District must accept flow from the EFSD in accordance with the EFSD Cohesive Operating Protocol, as amended. The amount and manner of flow accepted from the Drainage District by the EFSD when the Drainage District is dewatering or otherwise is limited by, and must be in compliance with, the ACO; the EFSD Cohesive Operating Protocol, as amended; and to the extent reasonably possible, the Comprehensive CSO RTB Operational Plan for the Drainage District, as amended; and the Drainage District's NPDES Permit, Permit No. MI0048046, as amended.
6. Term. The term of this Agreement will continue until December 31, 2051, unless extended by mutual written consent of the Parties.
7. General Conditions.
  - a. This Agreement must be construed under Michigan law, and if any part, term or provision of this Agreement is determined by a court of competent jurisdiction to be unlawful or unenforceable, such determination must not affect the validity and enforceability of the remaining parts, terms, or provisions of this Agreement.
  - b. This Agreement replaces and supersedes all prior oral or written agreements between the Parties concerning its purpose.
  - c. This Agreement sets forth the entire understanding between the Parties concerning its purpose. This Agreement may be amended only by written agreement of the Parties.
  - d. There are no intended third party beneficiaries to this Agreement.
  1. This Agreement does not, and is not intended to, impair, divest, delegate, or contravene any constitutional, statutory, or other legal right, privilege power, obligation, duty, or immunity of the Parties. The obligations in this Agreement are in the exercise or discharge of a governmental function and to serve the public health and welfare.
  - e. This Agreement is effective as of the date first written above.
  - f. This Agreement is binding on, and for the benefit of, the Parties and their respective their successors and assigns.

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

*[signatures on next page]*

DRAFT

**Evergreen Farmington Sanitary Drain Drainage District**

By: \_\_\_\_\_  
Jim Nash

Drainage Board of the Evergreen-Farmington  
Sanitary Drain Drainage District

\_\_\_\_\_  
Date: March \_\_, 2022

Approved at a meeting of the drainage board on March \_\_, 2022.

**Bloomfield Village CSO Drainage District**

By: \_\_\_\_\_  
Jim Nash

Drainage Board of the Bloomfield Village CSO  
Drainage District

\_\_\_\_\_  
Date: March \_\_, 2022

Approved at a meeting of the drainage board on March \_\_, 2022.

# Exhibit A

**EXHIBIT A**  
**CURRENT COST**  
**ALLOCATION**  
**METHODOLOGY**

The following methodology will be used to determine charges to the EFSD system (and corresponding credit to the Bloomfield Village CSO Drainage District). There will be no charges due to regulator operations. The methodology takes into account the flow accepted from the Walnut Lake Pump Station No 1. The values used as the example are for the rate period of January 1, 2021 through June 30, 2022.

CSO District

1. Determine the annual revenue requirement for the Bloomfield Village CSO Districts:

Use the total approved assess for the rate year	\$1,374,990
Subtract the EFSD Charges to the Bloomfield Village CSO Drainage District	(\$543,524)
<b>TOTAL Annual Operation Cost for the CSO</b>	<b>\$831,466</b>

2. Determine the average annual volume that passes through the Bloomfield Village CSO Districts as follows (rate year July 1 through June 30)

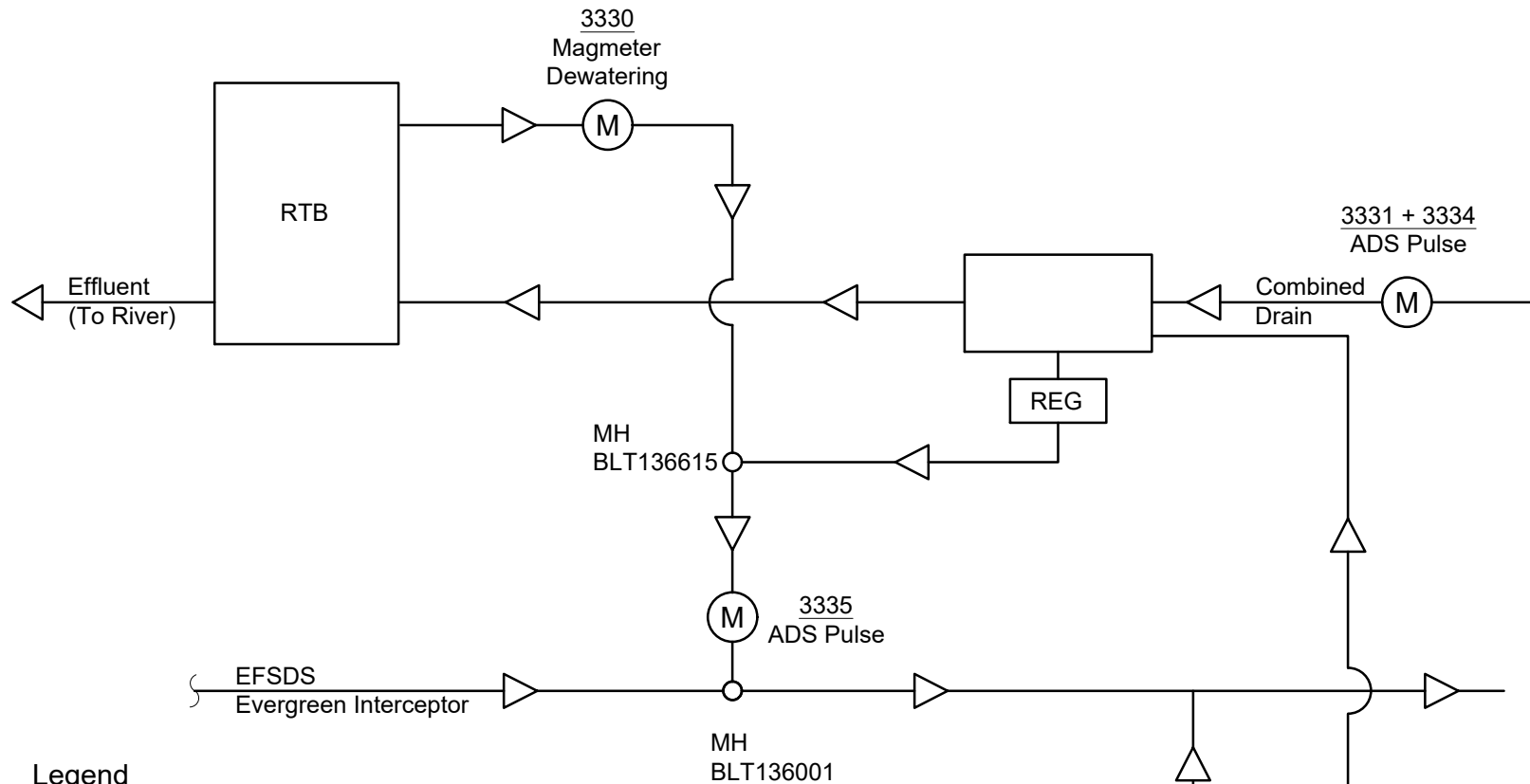
Pass Through Volume for 2018-2019	53,981 MCF
Pass Through Volume for 2019-20	35,386 MCF
Pass Through Volume for 2020-21	<u>21,320 MCF</u>
<b>AVERAGE PASS THROUGH VOLUME</b>	<b>36,896 MCF</b>

3. Calculate the Cost per volume by dividing total operating costs by 3-year average total pass through volume

TOTAL OPERATING COST PER MCF OF FLOW	(\$831,466 / 36,896)
	\$22.54/MCF

—

# Bloomfield Village Retention Treatment Basin (BVRTB) Metering Schematic



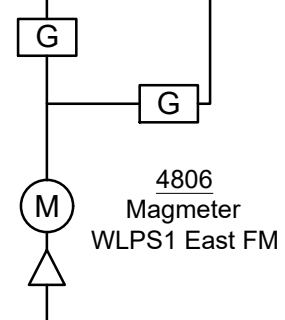
### Legend

- REG Regulator
- RTB Retention Treatment Basin
- M Meter
- G Control Gate
- Flow Direction

### Pass-through Flow Calculation

Flow into Regulator Chamber  
 - Flow Towards EFSD that is not RTB Dewatering  
 Pass-through flow

$$\frac{(3331 + 3334 + \text{If}(\text{Gate towards RTB} = \text{Open}, \text{then } 4806, \text{else } 0)) - (3335 - 3330)}{\text{Pass-through flow}}$$





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

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

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

**SUBJECT:** Rain Gauge Replacement

**DATE:** March 22, 2022

The intent of this memorandum is to request authorization of the costs associated with the installation of two rain gauges in the GWK Drainage District/Southeast Oakland County Sewage Disposal System (GWKDD). There is currently one rain gauge in the GWKDD, located at the facility. The second GWKDD rain gauge, located at the Hazel Park Raceway, was decommissioned on August 30, 2018 due to the Raceway being demolished. The proposed new locations for the rain gauges are City of Troy Pump Station #6 and City of Troy Department of Public Works. The cost of installing each rain gauge is approximately \$30,000.

**Recommended Actions:**

**Approve the allocation of \$60,000 in Capital funds to install the replacement rain gauges at the two locations within the City of Troy.**

**CHANGE ORDER NO. 1**

**Evergreen Farmington Sanitary Drain Drainage District Board  
For Construction of the S. Evergreen Interceptor Rehabilitation  
Beverly Hills, Birmingham & W. Bloomfield Township  
Oakland County, Michigan**

Authorization for Extras To & Changes In Contract

Department No.: 6010101  
Fund No.: 58410  
Project No.: 1-2914

Account No. : 730352  
Program No. : 149662  
Project Activity: FAC

Contractor:  
Pipeline Management Company  
2673 E. Maple Road  
Milford, MI 48381

Contract No. :  
Date of Contract: 1/10/2022  
Completion Date: 6/10/2022  
Extended to: N/A

Auth No.	Location-Description-Reason	Unit Used	Est. Qty.	Unit Price	Amount Increase	Amount Decrease
1A	<p><b>LOCATION:</b> Entire Project</p> <p><b>DESCRIPTION (Change/Add):</b>  Provide labor, materials, and equipment for 4 portable changeable message signs</p> <p><b>REASON:</b> The Beverly Hills board requested the signs to warn drivers of future road closure and to seek alternative route.</p>	Ea	4.0	\$1,500.00	\$6,000.00	---
1B	<p><b>LOCATION:</b> Entire Project</p>					

Auth No.	Location-Description-Reason	Unit Used	Est. Qty.	Unit Price	Amount Increase	Amount Decrease
	<p><b>DESCRIPTION (Change/Add):</b> Provide labor, materials, and equipemnt to place 15 additional Type III Barricades.</p> <p><b>REASON:</b> There have been resident complaints of people ignoring the road barricades and driving around them on the shoulder and lawns. We added additional signs to minimize these occurrences.</p>	LS	1.0	\$2,250.00	\$2,250.00	---
					Totals	\$0.00
					Net Increase	\$8,250.00

**CHANGE ORDER NO. 1**

**Evergreen Farmington Sanitary Drain Drainage District Board  
For Construction of the S. Evergreen Interceptor Rehabilitation  
Beverly Hills, Birmingham & W. Bloomfield Township  
Oakland, MI**

Prepared by: Evangelos Bantios Date: 3/10/2022  
Evangelos Bantios, P.E. - Project Engineer

Recommended by: \_\_\_\_\_ Date: \_\_\_\_\_  
Bradley W. Shepler, P.E. - Hubbell, Roth & Clark, Inc.

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

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

Accepted by: \_\_\_\_\_ Date: \_\_\_\_\_  
David Lusky  
Pipeline Management Company, LLC

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
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 Drain 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. 2 ✓

February 1, 2022 to February 28, 2022

Department No.: 6010101

Fund No.: 58410 ✓

Project No.: 1-2914

Account No.: 730325

Program No.: 149662 ✓

Activity: FAC

Contractor:

Pipeline Management Company, LLC  
2673 E. Maple Road  
Milford, MI 48381

Account No.: 730325

Date of Contract: January 10, 2022

Completion Date: June 10, 2022

Extended to: N/A

Original Contract Amount:		\$1,854,000.00
Previous Change Orders: Numbers: (none)		\$0.00
Change Orders This Estimate: Numbers: 1		\$8,250.00
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)		\$418,782.30
Less Deductions: (Sheet 3 of 3 Column 7)		\$0.00
Gross Estimate: (Work in Place)	22.49%	\$418,782.30
Less Amount Reserved: (10% of Gross Estimate)		\$41,878.23
Total Amount Allowed To Date:		\$376,904.07
Less Previous Estimates:		\$195,468.08 ✓
Net Payment Request To Be Paid To Contractor:		\$181,436.00
Reserve Payment to Contractor		\$0.00
Balance of Contract To Date	\$ ✓	1,443,467.70
Accounting Auditor:	<i>BCR</i>	3/11/22
Amount To Be Reserved (From Above)		\$41,878.23
Less Previous Transfers To Reserve:		\$21,718.68 ✓
Amount of Current Transfer:		\$20,159.56

Prepared by: Evangelos Bantios Date: 3/11/2022  
Evangelos Bantios, P.E. - Project Engineer

Recommended by: \_\_\_\_\_ Date: \_\_\_\_\_  
Bradly W. Shepler, P.E. - Hubbell, Roth & Clark, Inc.

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

Approved For Payment: \_\_\_\_\_ Date: \_\_\_\_\_  
Sid Lockhart, P.E. - Special Project Manager

Regular Construction Estimate No. 2

Approved By Board On: \_\_\_\_\_

## **2. Mainland Drain**

## **AGENDA**

### **DRAINAGE BOARD FOR THE MAINLAND DRAIN**

March 22, 2022

1. Call meeting to order
2. Approve minutes of meeting of February 28, 2022
3. Offer and file proofs of publication and of mailing of notice of the hearing
4. Open the hearing
5. Receive written objections
6. Ask for comments or objections from those present
7. Close the hearing
8. Present resolution to confirm apportionments of costs of operation and maintenance and direct the Chairperson to issue a Final Order of Apportionment
9. Chairperson to execute Final Order of Apportionment and present it to the Board
10. Motion to approve and file Final Order of Apportionment
11. Present Memorandum from Lynne Seymour, P.E., Chief Engineer, dated March 22, 2022, requesting the Board to approve staff to proceed with the full application for the Hazard Mitigation Grant Program and authorize the Chairperson to sign the Commitment of Funds letter prior to April 15, 2022
12. Other business
13. Approve pro rata payment to Drainage Board members
14. Adjourn

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

February 28, 2022

A meeting of the Drainage Board for the Mainland Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 11:00 a.m. on the 28<sup>th</sup> day of February 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

David Woodward, Chairperson of the Oakland County Board of Commissioners

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

ABSENT: None.

Minutes of the meeting held December 14, 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 Geoff S. Wilson, P.E., Drain Maintenance Engineer, dated February 22, 2022, requesting the Board to receive and file tentative apportionments and authorize staff to proceed with noticing and scheduling a meeting for objections to the tentative apportionments was presented. It was moved by Markham, supported by Woodward to receive and file tentative apportionments and authorize staff to proceed with noticing and scheduling a meeting for objections to the tentative apportionments as presented.

ADOPTED: Yeas - 3  
Nays - 0

A Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$97,177 for the Mainland 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 \$97,177 as presented.

ADOPTED: Yeas - 3  
Nays - 0

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



ADOPTED: Yeas - 3  
Nays - 0

There being no further business, the meeting was adjourned.



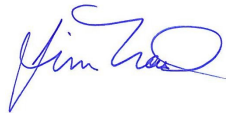
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Jim Nash, Chairperson

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 Mainland Drain, Oakland County, Michigan, held on the 28<sup>th</sup> day of February 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 Mainland Drain Drainage District.



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Jim Nash, Chairperson

Dated: February 28, 2022

**OAKLAND COUNTY  
WATER RESOURCES COMMISSIONER**

**MEMORANDUM**

**TO:** Jim Nash, Chairman – Mainland Drain Drainage Board

**FROM:** Geoff S. Wilson, P.E. - Drain Maintenance Engineer

**SUBJECT:** Re-Appportionment of the Mainland Drain

**DATE:** March 22, 2022

Waterford Township Board of Trustees has requested re-apportionment of the Mainland Drain. Upon receiving the re-apportionment resolution, the board instructed WRC staff to evaluate the drainage district and to recommend a new apportionment to the drainage district. The board adopted tentative apportionments at its February 28, 2022 meeting. Staff provided notice for today's Meeting to Hear Objections to Revised Apportionment of Cost to Operations and Maintenance of the Mainland Drain. The following steps necessary to re-apportion the drainage district:

**Present proofs of publication and mailing of the meeting notice.**

**Open hearing.**

**Read any written objections.**

**Public comment.**

**Adopt resolution of revised apportionment of cost for operation and maintenance and instruct chairperson to sign the final order of apportionment dated March 22, 2022.**

**AFFIDAVIT OF PUBLICATION**  
2125 Butterfield Dr, Suite 102N • Troy MI 48084

**Oakland County Water Resources**  
**One Public Works Drive**

**Waterford, MI 48328**  
**Attention: Geoff Wilson**

**STATE OF MICHIGAN,**  
**COUNTY OF OAKLAND**

The undersigned Cyndy Slater Cyndy Slater, being duly sworn the he/she is the principal clerk of Oakland Press, theoaklandpress.com, published in the English language for the dissemination of local or transmitted news and intelligence of a general character, which are duly qualified newspapers, and the annexed hereto is a copy of certain order, notice, publication or advertisement of:

**OAKLAND COUNTY WATER RESOURCES COMMISSIONER**  
**MAINLAND DRAIN**  
**NOTICE OF MEETING TO HEAR OBJECTIONS TO APPORTIONMENT**

DATE: TUESDAY, MARCH 22, 2022  
TIME: 2:00 PM  
LOCATION: 1 PUBLIC WORKS DR, BLDG 95W  
WATERFORD, MI 48328  
(248) 858-1105

QUESTIONS:

The Mainland Drain has been tentatively re-apportioned as follows:

Entity	Previous Apportionment (%)	Tentative Apportionment (%)
Charter Township of Waterford	99.30265	-
County of Oakland (County Complex)	28.66958	85.96
County of Oakland (County Highways)	8.70112	9.48
State of Michigan	3.24665	4.56

All affected public corporations are hereby notified of the meeting to hear objects of apportionment for the Mainland Drain, to take place at the date, time, and place as described.

Jim Nash

**Oakland County Water Resources**

**Published in the following edition(s):**

Oakland Press 03/02/22  
theoaklandpress.com 03/02/22

VICKI ARSENAULT  
NOTARY PUBLIC - STATE OF MICHIGAN  
COUNTY OF OAKLAND  
My Commission Expires May 11, 2026  
Acting in the County of \_\_\_\_\_

Sworn to the subscribed before me this 7 March, 2022

Vicki Arsenault  
Notary Public, State of Michigan  
Acting in Oakland County

**Advertisement Information**

Client Id: 644508

Ad Id: 2295146

PO:

Sales Person: 200309

**OAKLAND COUNTY WATER RESOURCES COMMISSIONER  
NOTICE OF MEETING TO HEAR OBJECTIONS TO REVISED APPORTIONMENT OF COST TO  
OPERATIONS AND MAINTENCE OF THE MAINLAND DRAIN**

**DATE:** TUESDAY, MARCH 22, 2022  
**TIME:** 2:00 PM  
**LOCATION:** 1 PUBLIC WORKS DR., BLDG 95W  
WATERFORD, MI 48328  
**QUESTIONS:** (248) 858-1105

NOTICE IS HEREBY GIVEN that the cost of operations and maintenance of the Mainland Drain as located in the County of Oakland has been revised and tentatively apportioned as follows, to wit:

Public Corporation	Previous Apportionment (%)	Tentative Revised Apportionment (%)
Charter Township of Waterford	59.38265	-
County of Oakland (County Complex)	28.66958	85.96
County of Oakland (County Highways)	8.70112	9.48
State of Michigan	3.24665	4.56

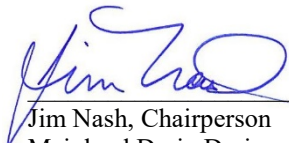
NOTICE IS FURTHER GIVEN that the Drainage Board for the Mainland Drain will meet at the aforementioned date, time, and location for the purpose of hearing any objections to the said revised apportionments.

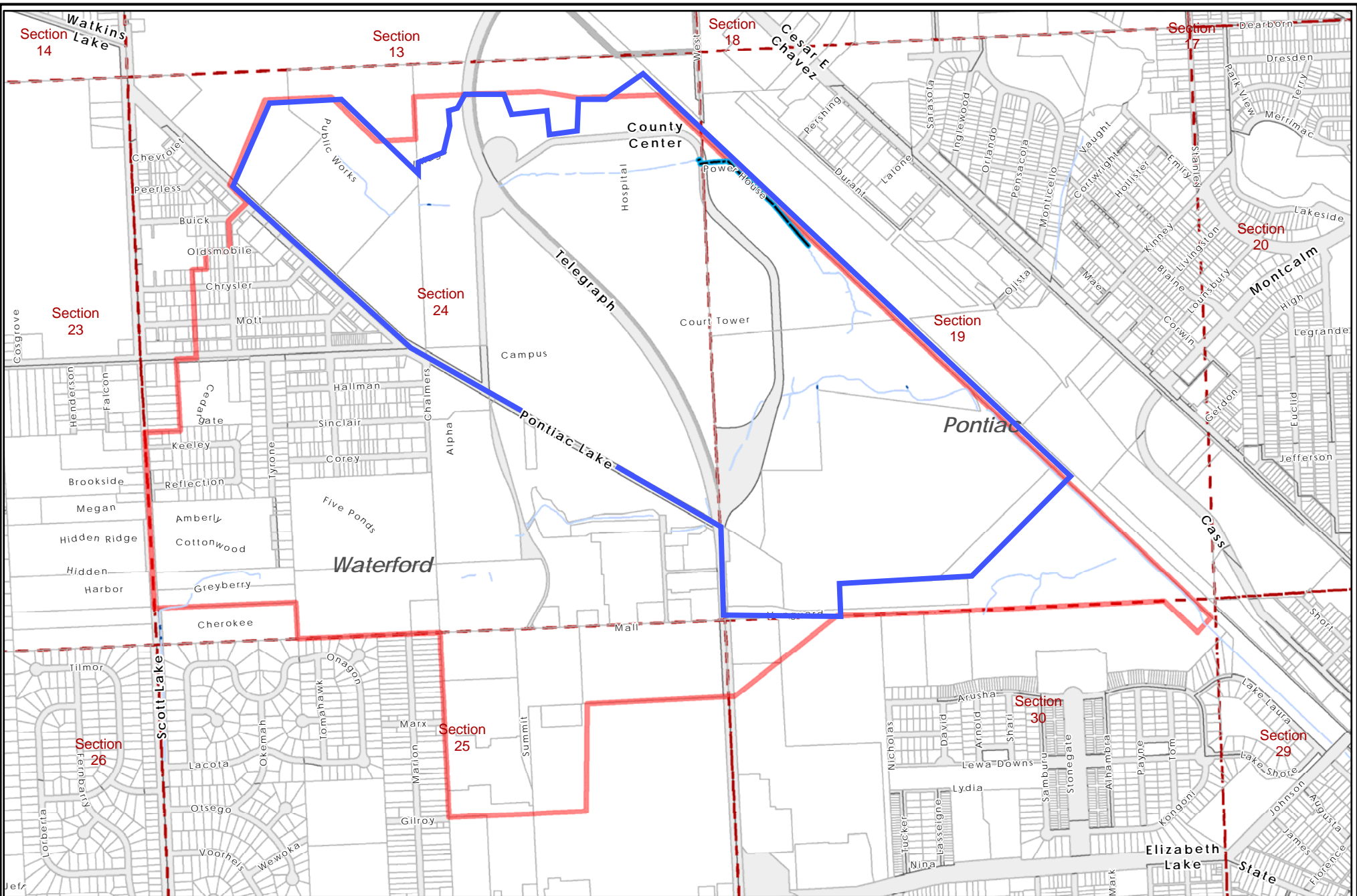
NOTICE IS FURTHER GIVEN that at said hearing any public corporation to be assessed, or any taxpayer thereof, will be entitled to be heard.

NOTICE IS FURTHER GIVEN that after consideration of all objections to the apportionments, the Drainage Board shall determine whether the apportionments fairly reflect the benefits to accrue to each public corporation and the extent to which each public corporation contributes to the conditions which make the drain necessary. If the Drainage Board determines that the apportionments are equitable, it will enter a Final Order of Apportionment confirming the apportionments. Section 483 of Act No. 40, Public Acts of Michigan, 1956, as amended, provides that the Final Order of Apportionment shall not be subject to attack in any court, except by proceedings in certiorari brought within 20 days after the order is filed in the office of the Oakland County Water Resources Commissioner, the Chairperson of the Drainage Board for the Mainland Drain, and that if no such proceedings shall be brought within said 20-day period the legality of the drain and the assessments therefor shall not thereafter be questioned in any suit at law or in equity either on jurisdictional or nonjurisdictional grounds.

NOTICE IS FURTHER GIVEN that if the Drainage Board enters the Final Order of Apportionment a special assessment roll assessing the costs of operating and maintaining the drain against the public corporations in accordance with the confirmed apportionments will be prepared and presented to the Drainage Board for approval. Each public corporation assessed will be obligated to pay its share of the costs of operating and maintaining the Mainland Drain in accordance with the assessments set forth on the special assessment roll.

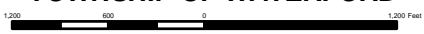
This notice is given to and for the benefit of the aforesaid public corporations and all taxpayers thereof by order of the Drainage Board by the Mainland Drain.

  
\_\_\_\_\_  
Jim Nash, Chairperson  
Mainland Drain Drainage District



**Legend**


**MAINLAND DRAIN  
DRAIN ASSESSMENT DISTRICT  
CITY PONTIAC  
TOWNSHIP OF WATERFORD**



Disclaimer: The information provided in this system has been compiled from recorded deeds, plats, tax maps, surveys and other public records and data. It is not a legally recorded map or survey and is not intended to be used as one. Users of this data are hereby notified that the information sources mentioned above should be consulted for verification of the information.



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  - Adult Signature Required \$
  - Adult Signature Restricted Delivery \$

Postage \$ **8.16**

Total Postage and Fees \$

Sent To **WATERFORD Twp Clerk**  
 Street and Apt. No., or PO Box No. **5200 CIVIC CENTER DRIVE**  
 City, State, ZIP+4® **WATERFORD MI 48328-3778**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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  - Return Receipt (electronic) \$
  - Certified Mail Restricted Delivery \$
  - Adult Signature Required \$
  - Adult Signature Restricted Delivery \$

Postage \$ **8.16**

Total Postage and Fees \$

Sent To **PAUL A JEBBA PE DIRECTOR WDOT**  
 Street and Apt. No., or PO Box No. **425 W OHAWA STREET**  
 City, State, ZIP+4® **LANSING MI 48909**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7020 3160 0000 5930 5342

7020 3160 0000 5930 5335



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 PAUL A. FEGBA PE  
 DIRECTOR, M.DOT  
 425 W. OTAWA ST  
 LANSING, MI 48909



9590 9402 5371 9189 1870 43

2. Article Number (Transfer from service label)  
 7020 3160 0000 5930 5342

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 ROCO BOARD  
 31001 LAHSER RD  
 Beverly Hills, MI 48025



9590 9402 5371 9189 1870 50

2. Article Number (Transfer from service label)  
 7020 3160 0000 5930 5359

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature  
 Agent  
 Addressee

B. Received by (Printed Name)  
 Karay Roberts

C. Date of Delivery  
 MAR 02 2022

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Adult Signature  
 Registered Mail<sup>TM</sup>  
 Certified Mail<sup>®</sup>  
 Certified Mail Restricted Delivery  
 Return Receipt for Merchandise  
 Collect on Delivery  
 Collect on Delivery Restricted Delivery  
 Signature Confirmation<sup>TM</sup>  
 Signature Confirmation Restricted Delivery  
 Insured Mail (Limit up to \$500)

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 OAKLAND COUNTY CLERK  
 1200 N TELEGRAPH RD  
 PONTIAC, MI 48341



9590 9402 4311 8190 0243 93

2. Article Number (Transfer from service label)  
 7020 3160 0000 5930 5366

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 WATERFORD Twp Clerk  
 5200 CIVIC CENTER DR  
 WATERFORD, MI 48329-3773



9590 9402 5371 9189 1870 36

2. Article Number (Transfer from service label)  
 7020 3160 0000 5930 5335

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature  
 Agent  
 Addressee

B. Received by (Printed Name)  
 M. Scully

C. Date of Delivery  
 3-2-22

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Priority Mail Express<sup>®</sup>  
 Registered Mail<sup>TM</sup>  
 Adult Signature Restricted Delivery  
 Certified Mail<sup>®</sup>  
 Certified Mail Restricted Delivery  
 Return Receipt for Merchandise  
 Collect on Delivery  
 Collect on Delivery Restricted Delivery  
 Signature Confirmation<sup>TM</sup>  
 Signature Confirmation Restricted Delivery  
 Insured Mail (Limit up to \$500)

COMPLETE THIS SECTION ON DELIVERY

A. Signature  
 Agent  
 Addressee

B. Received by (Printed Name)  
 Kullomina

C. Date of Delivery  
 KWAEMICK

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Priority Mail Express<sup>®</sup>  
 Registered Mail<sup>TM</sup>  
 Adult Signature Restricted Delivery  
 Certified Mail<sup>®</sup>  
 Certified Mail Restricted Delivery  
 Return Receipt for Merchandise  
 Collect on Delivery  
 Collect on Delivery Restricted Delivery  
 Signature Confirmation<sup>TM</sup>  
 Signature Confirmation Restricted Delivery  
 Insured Mail (Limit up to \$500)



**AFFIDAVIT OF PUBLICATION**  
2125 Butterfield Dr, Suite 102N • Troy MI 48084

**Oakland County Water Resources**  
**One Public Works Drive**

**Waterford, MI 48328**  
**Attention: Geoff Wilson**

**STATE OF MICHIGAN,**  
**COUNTY OF OAKLAND**

The undersigned Gandy Slater Gandy Slater, being duly sworn the he/she is the principal clerk of Oakland Press, theoaklandpress.com, theoaklandpress.com2, published in the English language for the dissemination of local or transmitted news and intelligence of a general character, which are duly qualified newspapers, and the annexed hereto is a copy of certain order, notice, publication or advertisement of:

**Oakland County Water Resources**

**Published in the following edition(s):**

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theoaklandpress.com	03/09/22
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VICKI ARSENAULT  
NOTARY PUBLIC - STATE OF MICHIGAN  
COUNTY OF OAKLAND  
My Commission Expires May 11, 2026  
Acting in the County of \_\_\_\_\_

Sworn to the subscribed before me this 10 March 2022  
Vicki Arsenault  
Notary Public, State of Michigan  
Acting in Oakland County

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**Client Id:** 644508      **Ad Id:** 2297246      **PO:**      **Sales Person:** 200309

**OAKLAND COUNTY WATER  
RESOURCES COMMISSIONER  
NOTICE OF MEETING TO HEAR OBJECTIONS  
TO REVISED APPORTIONMENT OF COST TO  
OPERATIONS AND MAINTENANCE OF THE  
MAINLAND DRAIN**

**DATE:** TUESDAY, MARCH 22, 2022  
**TIME:** 2:00 PM  
**LOCATION:** 1 PUBLIC WORKS DR., BLDG 95W  
 WATERFORD, MI 48328  
**QUESTIONS:** (248) 858-1105

NOTICE IS HEREBY GIVEN that the cost of operations and maintenance of the Mainland Drain as located in the County of Oakland has been revised and tentatively apportioned as follows, to wit:

Public Corporation	Previous Apportionment (%)	Tentative Revised Apportionment (%)
Charter Township of Waterford	59.38265	-
County of Oakland (County Complex)	28.66958	85.96
County of Oakland (County Highways)	8.70112	9.48
State of Michigan	3.24665	4.56

NOTICE IS FURTHER GIVEN that the Drainage Board for the Mainland Drain will meet at the aforementioned date, time, and location for the purpose of hearing any objections to the said revised apportionments.

NOTICE IS FURTHER GIVEN that at said hearing any public corporation to be assessed, or any taxpayer thereof, will be entitled to be heard.

NOTICE IS FURTHER GIVEN that after consideration of all objections to the apportionments, the Drainage Board shall determine whether the apportionments fairly reflect the benefits to accrue to each public corporation and the extent to which each public corporation contributes to the conditions which make the drain necessary. If the Drainage Board determines that the apportionments are equitable, it will enter a Final Order of Apportionment confirming the apportionments. Section 483 of Act No. 40, Public Acts of Michigan, 1956, as amended, provides that the Final Order of Apportionment shall not be subject to attack in any court, except by proceedings in certiorari brought within 20 days after the order is filed in the office of the Oakland County Water Resources Commissioner, the Chairperson of the Drainage Board for the Mainland Drain, and that if no such proceedings shall be brought within said 20-day period the legality of the drain and the assessments therefor shall not thereafter be questioned in any suit at law or in equity either on jurisdictional or non jurisdictional grounds.

NOTICE IS FURTHER GIVEN that if the Drainage Board enters the Final Order of Apportionment a special assessment roll assessing the costs of operating and maintaining the drain against the public corporations in accordance with the confirmed apportionments will be prepared and presented to the Drainage Board for approval. Each public corporation assessed will be obligated to pay its share of the costs of operating and maintaining the Mainland Drain in accordance with the assessments set forth on the special assessment roll.

This notice is given to and for the benefit of the aforesaid public corporations and all taxpayers thereof by order of the Drainage Board by the Mainland Drain.

**JIM NASH**  
**Chairperson of the Drainage Board for the Mainland Drain**



STATE OF MICHIGAN  
DEPARTMENT OF TRANSPORTATION  
LANSING

GRETCHEN WHITMER  
GOVERNOR

PAUL C. AJEGBA  
DIRECTOR

February 14, 2022

Mr. Jim Nash  
Oakland County Water Resources Commissioner  
One Public Works Drive  
Building 95 West  
Waterford, MI 48328-1907

Dear Mr. Nash:

Notice of Day of Review of Apportionments for Mainland Drain

This letter acknowledges the receipt of the Notice of Day of Review of Drainage District Boundaries and Review of Apportionments for **Mainland Drain** that will be held on **February 22, 2022**. If the changes to the drainage district are determined to be necessary, please send us a copy of the Order of Necessity including the approved revised final Drainage District boundary map.

In addition, the proposed addition and/or deletion of lands, if approved, will alter the approved apportionment on record. This letter also advises the submitted apportionment percentage of **4.56 percent** for **Mainland Drain** is acceptable to the Michigan Department of Transportation (MDOT). Please do not include MDOT's assessment in any bond funding. We will pay our assessment in full. Therefore, at the proper time, please send us an invoice showing the total cost of the project and MDOT's assessed amount.

If you have any questions, please feel free to contact me at (517) 241-0648.

Sincerely,

Ronald J. McKee  
Drainage Engineer  
Environmental Services Section

BOHD:ESS:RM:rm

cc: D. Dortman, Metro Region Drainage Coordinator

RESOLUTION  
MAINLAND DRAIN

The following resolution was offered by \_\_\_\_\_ and seconded by \_\_\_\_\_:

WHEREAS the Drainage Board for the Mainland Drain, on the 22nd day of February, 2022, tentatively established revised apportionments of the cost of operating and maintaining the Mainland Drain, to be borne by the several public corporations, as follows:

County of Oakland (County Complex)	85.96%
County of Oakland (County Highways)	9.48%
State of Michigan (State Highways)	4.56%

; and

WHEREAS after due notice the Drainage Board met on the 22nd of March, 2022 to hear any objections to the revised tentative apportionments; and

WHEREAS the revised tentative apportionments have been made by taking into consideration the benefits to accrue to each of the public corporations to be assessed and by taking into consideration the extent to which each such public corporation contributes to the conditions which made the Daly Drain necessary, limiting such factors in the case of the County of Oakland and the State of Michigan solely to the drainage of county and state highways; and

WHEREAS there were no objections to the proposed revised apportionments.

NOW THEREFORE BE IT RESOLVED by the Drainage Board for the Mainland Drain:

1. That the revised apportionments for operations and maintenance as above set forth be and the same are fixed and confirmed.
2. That the Chairman of this Drainage Board is authorized and directed to issue on behalf of the Board its Final Order of Apportionment (Operations and Maintenance) setting forth the several revised apportionments as herein fixed and confirmed.
3. That all former resolutions and orders of this Board, insofar as the same may be in conflict with the terms of this resolution, are rescinded.

FINAL ORDER OF APPORTIONMENT  
FOR OPERATIONS AND MAINTENANCE

IN RE

MAINLAND DRAIN

In accordance with a resolution adopted by the Drainage Board for the Mainland Drain on the 22nd day of March, 2022, the apportionments of the costs of operations and maintenance of the Mainland Drain to be borne by the several public corporations are as follows:

County of Oakland (County Complex)	85.96%
County of Oakland (County Highways)	9.48%
State of Michigan (State Highways)	4.56%

DRAINAGE BOARD FOR THE  
MAINLAND DRAIN

By: \_\_\_\_\_  
Jim Nash, Chairperson

Dated and Filed: March 22, 2022

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

**TO:** Jim Nash, Chairman – Mainland Drain Drainage Board

**FROM:** Lynne Seymour, P.E., Chief Engineer

**SUBJECT:** Hazard Mitigation Grant Program Application – Mainland Drain

**DATE:** March 22, 2022

On behalf of the Mainland Drain Drainage District, WRC staff submitted a Hazard Mitigation Grant Program Notice of Intent (October 2021) to address persistent flooding along the Drain and at the intersection of Telegraph Road and County Center Drive.

The proposed project will address four (4) separate areas along the Drain, all on County property. Streambank stabilization measures, through natural channel design, and off-channel stormwater wetlands will be used to create over 20,000 cubic yards (550,000 cubic feet) of additional storage volume. This will allow for the storage of peak flows and for the prevention of streambank erosion and localized flooding during large rain events. The wetland areas will not only provide an increase in flood storage capacity, but they will also improve the water quality through infiltration and by creating an easily accessible area for sediment and trash removal.

The Hazard Mitigation Grant Program is sponsored by Michigan State Police (Emergency Management and Homeland Security Division) and funded through FEMA. Initial comments received by MSP were positive and the suggested edits and recommendations are due by April 15<sup>th</sup>. In order to proceed with the grant application, FEMA requires a Commitment of Funds letter from a 25% non-federal funding source. With an estimated project cost of \$2,204,820, the 25% match would amount to \$551,205.

**Board Action Requested:**

**Approval to proceed with the full application for the Hazard Mitigation Grant Program and authorization for Commissioner Nash to sign the Commitment of Funds letter prior to April 15<sup>th</sup>.**



March 22, 2022

Mr. Scott Stockert  
Hazard Mitigation Analyst  
Emergency Management & Homeland Security Division  
Michigan State Police  
7150 Harris Drive  
Dimondale, MI 48821

Re: Hazard Mitigation Grant Program  
Project Name: 2022 Mainland Drain Flood Mitigation  
Commitment of Funds

Dear Mr. Stockert:

On behalf of the Mainland Drain Drainage District, my office has applied for grant funding pursuant to the Hazard Mitigation Grant Program to mitigate and prevent the damage from persistent flooding. The estimated project cost is \$2,204,820. We are seeking a federal share of 75% of the total project cost and hereby commit a match of 25% which amounts to approximately \$551,205.

The Mainland Drain Drainage District was established pursuant to the Michigan Dain Code, Act No. 40 of the Public Acts of 1956, MCL 280.196. It serves and is located within the boundaries of Waterford Township and the City of Pontiac, the latter being a financially disadvantaged municipality. The funds will be obtained through an assessment to Oakland County and the Michigan Department of Transportation based on their proportional share of accrued benefit and the extent to which each public corporation contributed to the conditions which made the District necessary.

If you have any questions or require additional information, please contact Lynne Seymour, a Chief Engineer with my office. Her telephone number is: 248-421-5878.

Sincerely,

A handwritten signature in blue ink that reads "Jim Nash".

Jim Nash, Chairman  
Mainland Drain Drainage Board



### **3. Beechmont Drain**



## **AGENDA**

### **DRAINAGE BOARD FOR THE BEECHMONT DRAIN**

March 22, 2022

1. Call meeting to order
2. Approve minutes of meeting of February 28, 2022
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$86,951
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

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

February 28, 2022

A meeting of the Drainage Board for the Beechmont Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 11:00 a.m. on the 28<sup>th</sup> day of February 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

David Woodward, Chairperson of the Oakland County Board of Commissioners

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

ABSENT: None.

Minutes of the meeting held November 20, 2012 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. Public comment was given by Keego Harbor City Manager, Tammy Neeb, regarding the Maintenance Assessment Recommendation and Special Assessment Roll for the Drainage District. Mike McMahon detailed the impact of a Special Assessment on a community and how invoices were generated from them. Discussion ensued pertaining to the details of the invoices that were reviewed by Keego Harbor. Geoff Wilson advised he could answer any questions the community may have pertaining to invoices from 2013 to present.

It was moved by Woodward, supported by Markham, to postpone the Maintenance Assessment Recommendation and Special Assessment roll in the amount of \$86,482 for the Beechmont Drain until the next Drainage Board meeting.

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.

A handwritten signature in blue ink, appearing to read "Jim Nash".

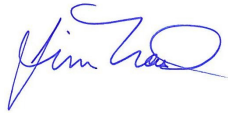
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Jim Nash, Chairperson

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 Beechmont Drain, Oakland County, Michigan, held on the 28<sup>th</sup> day of February 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 Beechmont Drain Drainage District.



---

Jim Nash, Chairperson

Dated: February 28, 2022

**OAKLAND COUNTY WATER RESOURCES COMMISSIONER**  
**MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE**  
**Beechmont Drain**

Assessment for current fund deficit and estimated maintenance expenses for fiscal years: 2022 through 2026

Date last assessment approved: N/A  
 Last Assessment: N/A  
 Current Available Cash: (\$51,951)

<b>Expenditure History:</b>	<b>Fiscal Year</b>	<b>Amount</b>
	2015	\$5,901
	2016	\$9,549
	2017	\$6,775
	2018	\$4,750
	2019	\$6,349
	2020	\$4,665
	2021	\$4,591

<b>Estimated Expenditures:</b>	<b>Year</b>	<b>Amount</b>
	2022	\$7,000
	2023	\$7,000
	2024	\$7,000
	2025	\$7,000
	2026	\$7,000
	<b>Total</b>	<b>\$35,000</b>

**Recommended Assessment:**

Current Cash Deficit	\$51,951
Total Anticipated Expenses 2022 - 2026	\$35,000
<b>TOTAL RECOMMENDED ASSESSMENT</b>	<b>\$86,951</b>

Prepared by: Michael R. McMahon Date: 3/22/2022  
 Michael R. McMahon, P.E. - Chief Engineer

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Brian Coburn, P.E. - Manager

Note: Current Available Cash as of January 31, 2022, Fiscal Services Division Report.

**SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE  
OF THE BEECHMONT DRAIN**

<b>Public Corporation</b>	<b>*Percentage of Apportionment</b>	<b>Total Amount of Assessment</b>	<b>Payment #1</b>	<b>Payment #2</b>	<b>Payment #3</b>	<b>Payment #4</b>	<b>Payment #5</b>
City of Keego Harbor	100.0000%	\$ 86,951.00	\$ 17,390.20	\$ 17,390.20	\$ 17,390.20	\$ 17,390.20	\$ 17,390.20
<b>Total</b>	<b>100.000%</b>	<b>\$ 86,951.00</b>	<b>\$ 17,390.20</b>	<b>\$ 17,390.20</b>	<b>\$ 17,390.20</b>	<b>\$ 17,390.20</b>	<b>\$ 17,390.20</b>

\*Apportionment based on Final Order of Apportionment dated 7/26/1988.

Assessment Payment Due Date(s): Payment #1 04/30/2022  
Payment #2 04/30/2023  
Payment #3 04/30/2024  
Payment #4 04/30/2025  
Payment #5 04/30/2026

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Beechmont Drain for the fiscal years 2022- 2026 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

\_\_\_\_\_  
 Jim Nash  
 Chairman of the Drainage Board for the Beechmont Drain

The foregoing Special Assessment Roll for the maintenance of the Beechmont Drain was approved by the Drainage Board on \_\_\_\_\_ .

\_\_\_\_\_  
 Jim Nash  
 Chairman of the Drainage Board for the Beechmont Drain

## **4. Keego Harbor Drain**

## **AGENDA**

### **DRAINAGE BOARD FOR THE KEEGO HARBOR DRAIN**

March 22, 2022

1. Call meeting to order
2. Approve minutes of meeting of February 28, 2022
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$43,795
5. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$3,303.86
6. Other business
7. Approve pro rata payment to Drainage Board members
8. Adjourn



**MINUTES OF THE MEETING OF THE DRAINAGE BOARD  
FOR THE KEEGO HARBOR DRAIN**

February 28, 2022

A meeting of the Drainage Board for the Keego Harbor Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 11:00 a.m. on the 28<sup>th</sup> day of February 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

David Woodward, Chairperson of the Oakland County Board of Commissioners

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

ABSENT: None.

Minutes of the meeting held November 12, 2012, 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.

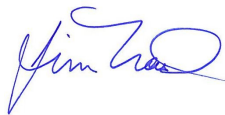
It was moved by Markham, supported by Woodward, to postpone the Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$43,792 for the Keego Harbor Drain until the next Drainage Board meeting.

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 for the Keego Harbor Drain, Oakland County, Michigan, held on the 28<sup>th</sup> day of February 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 Keego Harbor Drain Drainage District.



---

Jim Nash, Chairperson

Dated: February 28, 2022

**OAKLAND COUNTY WATER RESOURCES COMMISSIONER**  
**MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE**  
**Keego Harbor Drain**

Assessment for current fund deficit and estimated maintenance expenses for fiscal years: 2022 through 2026

Date last assessment approved: N/A  
 Last Assessment: N/A  
 Current Available Cash: (\$23,295)

<b>Expenditure History:</b>	<b>Fiscal Year</b>	<b>Amount</b>
	2015	\$4,134
	2016	\$773
	2017	\$2,985
	2018	\$1,303
	2019	\$3,884
	2020	\$4,895
	2021	\$2,339

<b>Estimated Expenditures:</b>	<b>Year</b>	<b>Amount</b>
	2022	\$4,100
	2023	\$4,100
	2024	\$4,100
	2025	\$4,100
	2026	\$4,100
	<b>Total</b>	<b>\$20,500</b>

**Recommended Assessment:**

Current Cash Deficit \$23,295  
 Total Anticipated Expenses 2022 - 2026 \$20,500

**TOTAL RECOMMENDED ASSESSMENT \$43,795**

Prepared by: Michael R. McMahon Date: 3/22/2022  
 Michael R. McMahon, P.E. - Chief Engineer

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Brian Coburn, P.E. - Manager

Note: Current Available Cash as of January 31, 2022, Fiscal Services Division Report.

**SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE  
OF THE KEEGO HARBOR DRAIN**

<b>Public Corporation</b>	<b>*Percentage of Apportionment</b>	<b>Total Amount of Assessment</b>	<b>Payment #1</b>	<b>Payment #2</b>	<b>Payment #3</b>	<b>Payment #4</b>	<b>Payment #5</b>
City of Keego Harbor	92.7300%	\$ 40,611.10	\$ 8,122.22	\$ 8,122.22	\$ 8,122.22	\$ 8,122.22	\$ 8,122.22
County of Oakland	7.2700%	\$ 3,183.90	\$ 3,183.90	-	-	-	-
<b>Total</b>	<b>100.000%</b>	<b>\$ 43,795.00</b>	<b>\$ 11,306.12</b>	<b>\$ 8,122.22</b>	<b>\$ 8,122.22</b>	<b>\$ 8,122.22</b>	<b>\$ 8,122.22</b>

\*Apportionment based on Final Order of Apportionment dated 7/26/1988.

Assessment Payment Due Date(s): Payment #1 04/30/2022  
 Payment #2 04/30/2023  
 Payment #3 04/30/2024  
 Payment #4 04/30/2025  
 Payment #5 04/30/2026

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Keego Harbor Drain for the fiscal years 2022- 2026 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

\_\_\_\_\_  
 Jim Nash  
 Chairman of the Drainage Board for the Keego Harbor Drain

The foregoing Special Assessment Roll for the maintenance of the Keego Harbor Drain was approved by the Drainage Board on \_\_\_\_\_.

\_\_\_\_\_  
 Jim Nash  
 Chairman of the Drainage Board for the Keego Harbor Drain

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

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

**DATE:** March 22, 2022

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

The following is a detail of expenses paid from the Drain Revolving Fund for the period ending March 15, 2022.

<u>Date</u>	<u>Reference No.</u>	<u>Payment To</u>	<u>For</u>	<u>Amount</u>
9/30/2015	JE#224582	Oakland County	PCR2 Contracted Services Allocation	\$ 1,592.68
9/30/2015	JE#225740	Oakland County	Illicit Connection Investigation Allocation	1,711.18
			<b>Total</b>	<b>\$ 3,303.86</b>

## **5. Schmid Drain**

## **AGENDA**

### **DRAINAGE BOARD FOR THE SCHMID DRAIN**

March 22, 2022

1. Call meeting to order
2. Approve minutes of meeting of February 28, 2022
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$177,719
5. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$39,700.18
6. Other business
7. Approve pro rata payment to Drainage Board members
8. Adjourn

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

February 28, 2022

A meeting of the Drainage Board for the Schmid Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 11:00 a.m. on the 28<sup>th</sup> day of February 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

David Woodward, Chairperson of the Oakland County Board of Commissioners

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

ABSENT: None.

Minutes of the meeting held April 27, 2021 the minutes be approved.

ADOPTED: Yeas - 3  
Nays - 0

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

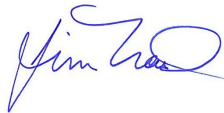
It was moved by Markham, supported by Woodward, to postpone the Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$177,108 for the Schmid Drain until the next Drainage Board meeting.

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 Schmid Drain, Oakland County, Michigan, held on the 28<sup>th</sup> day of February 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 Schmid Drain Drainage District.



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Jim Nash, Chairperson

Dated: February 28, 2022

**OAKLAND COUNTY WATER RESOURCES COMMISSIONER**  
**MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE**  
**Schmid Drain**

Assessment for current fund deficit and estimated maintenance expenses for fiscal years: 2022 through 2026

Date last assessment approved:	03/24/09	
Last Assessment:		\$33,367
Current Available Cash:		(\$125,719)

Expenditure History:	Fiscal Year	Amount
	2015	\$8,716
	2016	\$20,088
	2017	\$4,668
	2018	\$8,308
	2019	\$9,515
	2020	\$6,963
	2021	\$7,372

Estimated Expenditures:	Year	Amount
	2022	\$10,400
	2023	\$10,400
	2024	\$10,400
	2025	\$10,400
	2026	\$10,400
	<b>Total</b>	<b>\$52,000</b>

**Recommended Assessment:**

Current Cash Deficit		\$125,719
Total Anticipated Expenses 2022 - 2026		\$52,000

**TOTAL RECOMMENDED ASSESSMENT** **\$177,719**

Prepared by: Michael R. McMahon Date: 3/22/2022  
 Michael R. McMahon, P.E. - Chief Engineer

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Brian Coburn, P.E. - Manager

Note: Current Available Cash as of January 31, 2022, Fiscal Services Division Report.

**SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE  
OF THE SCHMID DRAIN**

<b>Public Corporation</b>	<b>*Percentage of Apportionment</b>	<b>Total Amount of Assessment</b>	<b>Payment #1</b>	<b>Payment #2</b>	<b>Payment #3</b>	<b>Payment #4</b>	<b>Payment #5</b>
City of Keego Harbor	75.8200%	\$ 134,746.55	\$ 26,949.31	\$ 26,949.31	\$ 26,949.31	\$ 26,949.31	\$ 26,949.31
County of Oakland	24.1800%	\$ 42,972.45	\$ 42,972.45	-	-	-	-
<b>Total</b>	<b>100.000%</b>	<b>\$ 177,719.00</b>	<b>\$ 69,921.76</b>	<b>\$ 26,949.31</b>	<b>\$ 26,949.31</b>	<b>\$ 26,949.31</b>	<b>\$ 26,949.31</b>

\*Apportionment based on Final Order of Apportionment dated 3/20/2001.

Assessment Payment Due Date(s): Payment #1 04/30/2022  
 Payment #2 04/30/2023  
 Payment #3 04/30/2024  
 Payment #4 04/30/2025  
 Payment #5 04/30/2026

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Schmid Drain for the fiscal years 2022- 2026 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

\_\_\_\_\_  
 Jim Nash  
 Chairman of the Drainage Board for the Schmid Drain

The foregoing Special Assessment Roll for the maintenance of the Schmid Drain was approved by the Drainage Board on \_\_\_\_\_ .

\_\_\_\_\_  
 Jim Nash  
 Chairman of the Drainage Board for the Schmid Drain

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

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

**DATE:** March 22, 2022

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

The following is a detail of Maintenance charges paid from the Drain Revolving Fund for the period ending March 15, 2022.

Date	Ref No.	Paid To	For	Amount
7/15/2021	V # 1541305	CSM Mechanical LLC	Invoice # 21-268 - Contracted Services	\$ 7,380.00
6/18/2021	JE#352105	Meadowbrook Insurance	2021 Insurance Allocation - Inv # 12957	1,424.71
5/31/2021	V # 1522009	Rowe Professional	Invoice # 0097264 - Contracted Services	1,083.75
5/31/2021	V # 1522010	Rowe Professional	Invoice # 0097628 - Contracted Services	6,535.25
5/31/2021	V # 1522011	Rowe Professional	Invoice # 0098000 - Contracted Services	1,881.00
6/24/2020	JE# 337125	Meadowbrook Insurance	2020 Insurance Allocation - Inv # 3767	1,278.96
4/30/2019	JE # 310380	Meadowbrook Insurance	2019 Insurance Allocation - Inv # 999926	1,448.06
1/29/2020	JE # 279503	Meadowbrook Insurance	2018 Insurance Allocation - Inv # 133004	1,249.09
12/31/2017	JE # 278713	Meadowbrook Insurance	2018 Insurance GF Allocation	396.30
2/23/2017	JE # 256275	Meadowbrook Insurance	2017 Insurance Allocation	1,033.85
12/31/2016	V # 1141145	Kennedy Industries	Invoice # 573249 - Material and Supplies	3,112.60
9/30/2016	V # 1119997	HydroDynamics	Invoice # 30428 - Contracted Services	11,725.04
10/1/2015	JE # 222597	Meadowbrook Insurance	2016 Insurance Allocation - Inv # 118869	1,151.57
			<b>Total</b>	<b>\$ 39,700.18</b>

## **6. Acacia Park CSO**

## **AGENDA**

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

March 22, 2022

1. Call meeting to order
2. Approve minutes of meeting of February 28, 2022
3. Public Comments
4. Present Memorandum from Carrie Cox, P.E., Chief Engineer, dated March 22, 2022, requesting the Board to approve the agreement between the Evergreen-Farmington Sanitary Drain and the Drainage District and authorize the Chairperson to execute the agreement
5. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$12,768.89
6. Other business
7. Approve pro rata payment to Drainage Board members
8. Adjourn

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

February 28, 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 11:00 a.m. on the 28<sup>th</sup> day of February 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 January 25, 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 February 22, 2022, requesting the Board to approve the Drainage District Retention Treatment Basin major maintenance and capital improvement projects listed for the not to exceed amount of \$171,000 was presented. It was moved by Markham, supported by Woodward to approve the Drainage District Retention Treatment Basin major maintenance and capital improvement projects listed for the not to exceed amount of \$171,000 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 \$13,795.88 (as attached) was presented. It was moved by Markham, supported by Woodward to approve the payment of invoices and reimbursement of the Drain Revolving Fund in the amount of \$13,795.88.

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.



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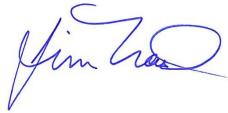
Jim Nash, Chairperson



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 28<sup>th</sup> day of February 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: February 28, 2022

**OAKLAND COUNTY  
WATER RESOURCES COMMISSIONER**

**MEMORANDUM**

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

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

**SUBJECT:** Storage and Operation Agreement

**DATE:** March 22, 2022

The Evergreen-Farmington Sewage Disposal System (EFSDS) transitioned to the Evergreen-Farmington Sanitary Drain (EFSD). Attached is an updated operating agreement to reflect the acceptance of flow and reimbursement to the EFSD. The agreement was reviewed through a series of stakeholder meetings with representatives from both the EFSD and Acacia Park CSO Drain communities. The stakeholder group and WRC staff recommend approval of this agreement.

**Recommended Actions:**

**Approve the agreement between the Evergreen-Farmington Sanitary Drain Drainage District and the Acacia Park CSO Drain Drainage District as presented and authorize the Chairperson of the Board to execute the agreement.**

**EVERGREEN FARMINGTON SEWAGE DISPOSAL SYSTEM AND ACACIA PARK  
CSO DRAIN DRAINAGE DISTRICT RETENTION TREATMENT BASIN STORAGE  
AGREEMENT**

This Agreement is made this March \_\_, 2022 by and between the Evergreen-Farmington Sanitary Drain Drainage District (“EFSD”), a Michigan statutory corporation organized pursuant to Chapter 20 of the Michigan Drain Code, Act No. 40 of the Public Acts of Michigan of 1956, as amended (“Drain Code”), by and through its drain board and the Acacia Park CSO Drain Drainage District, a Michigan statutory corporation organized pursuant to Act 40 of 1956, as amended, by and through its drain board (“Drainage District”). In this Agreement, either the EFSD or Drainage District may also be referred to individually as a “Party” or jointly as the “Parties.”

**RECITATIONS**

Whereas, EFSD is a regional system of sewers formerly known as the Evergreen-Farmington Sewage Disposal System which was operated and maintained by the County Agency in accordance with Act 342 of the Public Acts of 1939, as amended, and Act 185 of the Public Acts of 1957, as amended; and

Whereas, the Evergreen-Farmington Sewage Disposal System was transferred to the EFSD by operation of law under the Drain Code pursuant to petition, agreement entered into pursuant to Section 471 of the Drain Code, and assignment; and

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

Whereas the EFSD and the Drainage District entered into that certain the Restatement of the Retention Treatment Basin Capacity Use Memorandum of Understanding Evergreen-Farmington Sewage Disposal System dated November 28, 2017 (“MOU”) which permitted EFSD to regulate and control flow from the RTBs and transport wet weather sanitary flow from the EFSD via the Walnut Lake #1 force main to the Drainage District for an authorized duration and during events that exceed the design storm defined by the Administrative Consent Order with the state of Michigan, ACO-04995, as amended (“ACO”).

Whereas, the EFSD is undertaking projects to further comply with the ACO, necessitating the need for a new agreement with the Drainage District.

Now therefore, the Parties agree as follows:

## AGREEMENT

1. Acceptance of Flow. The EFSD agrees to accept dewatering and other flow from the Drainage District as provided in this Agreement.
2. Acknowledgement. The Drainage District expressly acknowledges that the Evergreen-Farmington Sewage Disposal System was transferred to the EFSD by operation of law under the Drain Code pursuant to petition, agreement entered into pursuant to Section 471 of the Drain Code, and assignment. This Agreement is the expressed mutual written consent of the Parties to terminate any prior RTB Agreement and the MOU effective date of this Agreement.
3. EFSD Reimbursement to Drainage District. There is to be no EFSD reimbursement to the Drainage District for its allocated share of the EFSD wet weather flow.
4. Drainage District Reimbursement to EFSD. The Drainage District must pay the EFSD for its share of the operation, maintenance, and administration of the EFSD and related wastewater services at such amounts as the EFSD may establish from time to time based on the aggregate quantity of wastewater (which includes sanitary, stormwater, and/or combined waste and storm water flow) on a multi-year rolling average method entering the EFSD attributable from the Drainage District or any other method as determined by the EFSD.
5. Limit on Flow Accepted, Dewatering, and Drainage District Operations. The Drainage District must be operated in accordance with the EFSD Cohesive Operating Protocol, as amended. The amount of flow that can be accepted from the Drainage District by the EFSD when the Drainage District is dewatering or otherwise is limited by the ACO, and is further limited to the provisions of the Comprehensive CSO RTB Operational Plan for the Drainage District, as amended, and in compliance with the Drainage District's NPDES Permit, Permit No. MI0048046, as amended.
6. Term. The term of this Agreement will continue until December 31, 2051, unless extended by mutual written consent of the Parties.
7. General Conditions.
  - a. This Agreement must be construed under Michigan law, and if any part, term or provision of this Agreement is determined by a court of competent jurisdiction to be unlawful or unenforceable, such determination shall not affect the validity and enforceability of the remaining parts, terms, or provisions of this Agreement.
  - b. This Agreement replaces and supersedes all prior oral or written agreements between the Parties concerning its purpose.
  - c. This Agreement sets forth the entire understanding between the Parties concerning its purpose. This Agreement may be amended only by written agreement of the Parties.

- d. There are no intended third party beneficiaries to this Agreement.
- 1. This Agreement does not, and is not intended to, impair, divest, delegate, or contravene any constitutional, statutory, or other legal right, privilege power, obligation, duty, or immunity of the Parties. The obligations in this Agreement are in the exercise or discharge of a governmental function and to serve the public health and welfare.
- e. This Agreement is effective as of the date first written above.
- f. This Agreement is binding on, and for the benefit of, the Parties and their respective their successors and assigns.

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

*[signatures on next page]*

DRAFT

**Evergreen Farmington Sanitary Drain Drainage District**

By: \_\_\_\_\_  
Jim Nash  
Drainage Board of the Evergreen-Farmington  
Sanitary Drain Drainage District

\_\_\_\_\_  
Date: March \_\_, 2022

Approved at a meeting of the drainage board on March \_\_, 2022.

**Acacia Park CSO Drainage District**

By: \_\_\_\_\_  
Jim Nash  
Drainage Board of the Acacia Park CSO  
Drainage District

\_\_\_\_\_  
Date: March \_\_, 2022

Approved at a meeting of the drainage board on March \_\_, 2022.

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

*for Shawn Phelps*

DATE: March 22, 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 March 15, 2022

G/L Date	Ref No.	Paid To	For	Amount
2/28/2022	V # 1592217	ICS Integration Services LLC	Invoice # 2272 - Contracted Services	\$ 3,778.66
			Project # 1-3467 Subtotal	<u>\$ 3,778.66</u>
	TBP	ICS Integration Services LLC	Invoice # 2270 - Contracted Services	\$ 8,990.23
			Project # 1-2773 Subtotal	<u>\$ 8,990.23</u>
			Grand Total	<u>\$ 12,768.89</u>

## **7. Birmingham CSO**



## **AGENDA**

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

March 22, 2022

1. Call meeting to order
2. Approve minutes of meeting of February 28, 2022
3. Public Comments
4. Present Memorandum from Carrie Cox, P.E., Chief Engineer, dated March 22, 2022, requesting the Board to approve the agreement between the Evergreen-Farmington Sanitary Drain and the Drainage District and authorize the Chairperson to execute the agreement
5. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$3,778.66
6. Other business
7. Approve pro rata payment to Drainage Board members
8. Adjourn

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

February 28, 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 11:00 a.m. on the 28<sup>th</sup> day of February 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 January 25, 2022, were presented for consideration. It was moved by Woodward, supported by Nash, that the minutes be approved.

ADOPTED: Yeas - 2  
Nays - 0

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

A memorandum from Gary Nigro, P.E., Chief Engineer, dated February 22, 2022, requesting the Board to approve the Drainage District Retention Treatment Basin major maintenance and capital improvement projects listed for the not to exceed amount of \$279,000 was presented. It was moved by Woodward, supported by Nash to approve the Drainage District Retention Treatment Basin major maintenance and capital improvement projects listed for the not to exceed amount of \$279,000 as presented.

ADOPTED: Yeas - 2  
Nays - 0

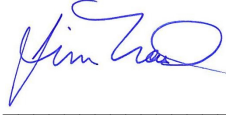
A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$9,047.96 (as attached) was presented. It was moved by Woodward, supported by Nash, to approve the payment of invoices and reimbursement of the Drain Revolving Fund in the amount of \$9,047.96

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.

A handwritten signature in blue ink, appearing to read "Jim Nash".

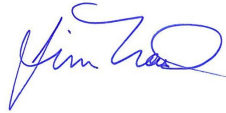
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Jim Nash, Chairperson

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 28<sup>th</sup> day of February 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.



---

Jim Nash, Chairperson

Dated: February 28, 2022

**OAKLAND COUNTY  
WATER RESOURCES COMMISSIONER**

**MEMORANDUM**

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

**FROM:** Carrie Cox, P.E., Chief Engineer

**SUBJECT:** Storage and Operation Agreement

**DATE:** March 22, 2022

The Evergreen-Farmington Sewage Disposal System (EFSDS) transitioned to the Evergreen-Farmington Sanitary Drain (EFSD). Attached is an updated operating agreement to reflect the acceptance of flow and reimbursement to the EFSD. The agreement was reviewed through a series of stakeholder meetings with representatives from both the EFSD and Birmingham CSO Drain communities. The stakeholder group and WRC staff recommend approval of this agreement.

**Recommended Actions:**

**Approve the agreement between the Evergreen-Farmington Sanitary Drain Drainage District and the Birmingham CSO Drain Drainage District as presented and authorize the Chairperson of the Board to execute the agreement.**

**EVERGREEN FARMINGTON SEWAGE DISPOSAL SYSTEM AND CITY OF BIRMINGHAM RETENTION TREATMENT BASIN STORAGE AGREEMENT**

This Agreement is made this March \_\_, 2022 by and between the Evergreen-Farmington Sanitary Drain Drainage District (“EFSD”), a Michigan statutory corporation organized pursuant to Chapter 20 of the Michigan Drain Code, Act No. 40 of the Public Acts of Michigan of 1956, as amended (“Drain Code”), by and through its drain board and the City of Birmingham CSO Drain Drainage District, a Michigan statutory corporation organized pursuant to Act 40 of 1956, as amended, by and through its drain board (“Drainage District”). In this Agreement, either the EFSD or Drainage District may also be referred to individually as a “Party” or jointly as the “Parties.”

**RECITATIONS**

Whereas, EFSD is a regional system of sewers formerly known as the Evergreen-Farmington Sewage Disposal System which was operated and maintained by the County Agency in accordance with Act 342 of the Public Acts of 1939, as amended, and Act 185 of the Public Acts of 1957, as amended; and

Whereas, the Evergreen-Farmington Sewage Disposal System was transferred to the EFSD by operation of law under the Drain Code pursuant to petition, agreement entered into pursuant to Section 471 of the Drain Code, and assignment.

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

Whereas the EFSD and the Drainage District entered into that certain the Restatement of the Retention Treatment Basin Capacity Use Memorandum of Understanding Evergreen-Farmington Sewage Disposal System dated November 28, 2017 (“MOU”) which permitted EFSD to regulate and control flow from the RTBs and transport wet weather sanitary flow from the EFSD via the Walnut Lake #1 force main to the Drainage District for an authorized duration and during events that exceed the design storm defined by the Administrative Consent Order with the state of Michigan, ACO-04995, as amended (“ACO”).

Whereas, the EFSD is undertaking projects to further comply with the ACO, necessitating the need for a new agreement with the Drainage District.

Now therefore, the Parties agree as follows:

## AGREEMENT

1. Acceptance of Flow. The EFSD agrees to accept dewatering and other flow from the Drainage District as provided in this Agreement.
2. Acknowledgement. The Drainage District expressly acknowledges that the Evergreen-Farmington Sewage Disposal System was transferred to the EFSD by operation of law under the Drain Code pursuant to petition, agreement entered into pursuant to Section 471 of the Drain Code, and assignment. This Agreement is the expressed mutual written consent of the Parties to terminate any prior RTB Agreement and the MOU effective date of this Agreement.
3. EFSD Reimbursement to Drainage District. There is be no EFSD reimbursement to the Drainage District for its allocated share of the EFSD wet weather flow.
4. Drainage District Reimbursement to EFSD. The Drainage District must pay the EFSD for its share of the operation, maintenance, and administration of the EFSD and related wastewater services at such amounts as the EFSD may establish from time to time based on the aggregate quantity of wastewater (which includes sanitary, stormwater, and/or combined waste and storm water flow) on a multi-year rolling average method entering the EFSD attributable from the Drainage District or any other method as determined by the EFSD.
5. Limit on Flow Accepted, Dewatering, and Drainage District Operations. The Drainage District must be operated in accordance with the EFSD Cohesive Operating Protocol, as amended. The amount of flow that can be accepted from the Drainage District by the EFSD when the Drainage District is dewatering or otherwise is limited by the ACO, and is further limited to the provisions of the Comprehensive CSO RTB Operational Plan for the Drainage District, as amended, and in compliance with the Drainage District's NPDES Permit, Permit No. MI0048046, as amended.
6. Term. The term of this Agreement will continue until December 31, 2051, unless extended by mutual written consent of the Parties.
7. General Conditions.
  - a. This Agreement must be construed under Michigan law, and if any part, term or provision of this Agreement is determined by a court of competent jurisdiction to be unlawful or unenforceable, such determination shall not affect the validity and enforceability of the remaining parts, terms, or provisions of this Agreement.
  - b. This Agreement replaces and supersedes all prior oral or written agreements between the Parties concerning its purpose.
  - c. This Agreement sets forth the entire understanding between the Parties concerning its purpose. This Agreement may be amended only by written agreement of the Parties.

- d. There are no intended third party beneficiaries to this Agreement.
- 1. This Agreement does not, and is not intended to, impair, divest, delegate, or contravene any constitutional, statutory, or other legal right, privilege power, obligation, duty, or immunity of the Parties. The obligations in this Agreement are in the exercise or discharge of a governmental function and to serve the public health and welfare.
- e. This Agreement is effective as of the date first written above.
- f. This Agreement is binding on, and for the benefit of, the Parties and their respective their successors and assigns.

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

*[signatures on next page]*



**Evergreen Farmington Sanitary Drain Drainage District**

By: \_\_\_\_\_  
Jim Nash  
Drainage Board of the Evergreen-Farmington  
Sanitary Drain Drainage District

Date: March \_\_, 2022

Approved at a meeting of the drainage board on March \_\_, 2022.

**City of Birmingham CSO Drainage District**

By: \_\_\_\_\_  
Jim Nash  
Drainage Board of the City of Birmingham CSO  
Drainage District

Date: March \_\_, 2022

Approved at a meeting of the drainage board on March \_\_, 2022.

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

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

*For Shawn Phelps*

**DATE:** March 22, 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 March 15, 2022

<u>G/L Date</u>	<u>Ref No.</u>	<u>Paid To</u>	<u>For</u>	<u>Amount</u>
2/28/2022	V # 1592217	ICS Integration Services LLC	Invoice # 2272 - Contracted Services	3,778.66
			<b>Subtotal Project # 1-3500</b>	<b>\$ 3,778.66</b>
			<b>Total</b>	<b>\$ 3,778.66</b>

## **8. Bloomfield Village CSO**

## **AGENDA**

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

March 22, 2022

1. Call meeting to order
2. Approve minutes of meeting of February 28, 2022
3. Public Comments
4. Present Memorandum from Carrie Cox, P.E., Chief Engineer, dated March 22, 2022, requesting the Board to approve the agreement between the Evergreen-Farmington Sanitary Drain and the Drainage District and authorize the Chairperson to execute the agreement
5. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$7,212.27
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**

February 28, 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 11:00 a.m. on the 28<sup>th</sup> day of February 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 January 25, 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 February 22, 2022, requesting the Board to approve the Drainage District Retention Treatment Basin major maintenance and capital improvement projects listed for the not to exceed amount of \$364,000 was presented. It was moved by Woodward, supported by Nash to approve the Drainage District Retention Treatment Basin major maintenance and capital improvement projects listed for the not to exceed amount of \$364,000 as presented.

ADOPTED: Yeas - 3  
Nays - 0

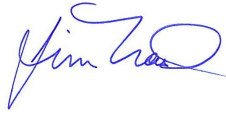
A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$20,317.91 (as attached) was presented. It was moved by Markham, supported by Woodward, to approve the payment of invoices and reimbursement of the Drain Revolving Fund in the amount of \$20,317.91.

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.

A handwritten signature in blue ink, appearing to read "Jim Nash", is positioned above a horizontal line.

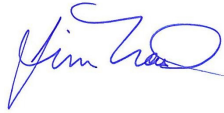
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Jim Nash, Chairperson

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 28<sup>th</sup> day of February 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.



---

Jim Nash, Chairperson

Dated: February 28, 2022

**OAKLAND COUNTY  
WATER RESOURCES COMMISSIONER**

**MEMORANDUM**

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

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

**SUBJECT:** Storage and Operation Agreement

**DATE:** March 22, 2022

The Evergreen-Farmington Sewage Disposal System (EFSDS) transitioned to the Evergreen-Farmington Sanitary Drain (EFSD). Attached is an updated operating agreement to reflect the acceptance of flow and reimbursement to the EFSD. The agreement was reviewed through a series of stakeholder meetings with representatives from both the EFSD and Bloomfield Village CSO Drain communities. The stakeholder group and WRC staff recommend approval of this agreement.

**Recommended Actions:**

**Approve the agreement between the Evergreen-Farmington Sanitary Drain Drainage District and the Bloomfield Village CSO Drain Drainage District as presented and authorize the Chairperson of the Board to execute the agreement.**



**EVERGREEN FARMINGTON SANITARY DRAIN DRAINAGE DISTRICT AND  
BLOOMFIELD VILLAGE CSO DRAIN DRAINAGE DISTRICT RETENTION  
TREATMENT BASIN STORAGE AND OPERATION AGREEMENT**

This Agreement is made this March \_\_, 2022 by and between the Evergreen-Farmington Sanitary Drain Drainage District (“EFSD”), a Michigan statutory corporation organized pursuant to Chapter 20 of the Michigan Drain Code, Act No. 40 of the Public Acts of Michigan of 1956, as amended (“Drain Code”), by and through its drain board and the Bloomfield Village CSO Drain Drainage District, a Michigan statutory corporation organized pursuant to Act 40 of 1956, as amended, by and through its drain board (“Drainage District”). In this Agreement, either the EFSD or Drainage District may also be referred to individually as a “Party” or jointly as the “Parties.”

**RECITATIONS**

Whereas, EFSD is a regional system of sewers formerly known as the Evergreen-Farmington Sewage Disposal System which was operated and maintained by the County Agency in accordance with Act 342 of the Public Acts of 1939, as amended, and Act 185 of the Public Acts of 1957, as amended; and

Whereas, the Evergreen-Farmington Sewage Disposal System was transferred to the EFSD by operation of law under the Drain Code pursuant to petition, agreement entered into pursuant to Section 471 of the Drain Code, and assignment.

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

Whereas the EFSD and the Drainage District entered into that certain Evergreen Farmington Sewage Disposal System and Bloomfield Village Retention Basin Storage Agreement dated June 23, 2020 (“June 23, 2020 RTB Agreement”) for two main purposes: (1) authorizing EFSD to transport wet weather sanitary flow from the EFSD via the Walnut Lake Pump Station No. 1 force main to the Drainage District for an authorized duration and during events that exceed the design storm defined by the Administrative Consent Order with the state of Michigan, ACO-04995, as amended (“ACO”); and (2) setting forth the basis and methodology for compensating the Drainage District for the use of the Drainage District for storage and treatment of sanitary flow from EFSD.

Whereas, the EFSD is undertaking projects to further comply with the ACO, necessitating the need for a new agreement with the Drainage District.

Now therefore, the Parties agree as follows:

## AGREEMENT

1. Acceptance of Flow. The Drainage District agrees to accept flow from the EFSD via the Walnut Lake Pump Station No. 1 force main to the Drainage District to be stored and treated at the Drainage District's RTB. The EFSD agrees to accept dewatering and other flow from the Drainage District as provided in this Agreement.
2. Acknowledgement. The Drainage District expressly acknowledges that the Evergreen-Farmington Sewage Disposal System was transferred to the EFSD by operation of law under the Drain Code pursuant to petition, agreement entered into pursuant to Section 471 of the Drain Code, and assignment. The Drainage District also expressly acknowledges that the EFSD will no longer reimburse the Drainage District for regulator closures. This Agreement is the expressed mutual written consent of the Parties to terminate the June 23, 2020 RTB Agreement. The June 23, 2020 RTB Agreement is terminated as of the effective date of this Agreement. This Agreement also terminates the Restatement of the Retention Treatment Basin Capacity Use Memorandum of Understanding Evergreen-Farmington Sewage Disposal System dated November 28, 2017 ("MOU").
3. EFSD Reimbursement to Drainage District. The EFSD must reimburse the Drainage District for its allocated share of the EFSD flow in accordance with the following:
  - a. The volume is recorded each time flow from the EFSD is diverted to the Drainage District. The total quarterly volume will be used to calculate the charge to EFSD by the Drainage District.
  - b. A cost of \$9.53 per thousand cubic feet ("cost per MCF") has been established for the period of July 1, 2021 through June 30, 2022. The cost per MCF must be adjusted using the method in **Exhibit A** for each subsequent rate year (July 1 through June 30).
  - c. The EFSD must pay the additional capital cost to the Drainage District directly attributed to capital improvements to the Drainage District's RTB to comply with future requirements of the state of Michigan as stated in an ACO amendment or the Drainage District's Permit MI0048046 resulting from the Drainage District accepting flow from the EFSD via the Walnut Lake Pump Station No. 1 force main to be stored and treated at the Drainage District's RTB.
  - d. The EFSD must pay the incremental additional cost directly attributed to new operational requirements (e.g. treatment) of the Drainage District's RTB to comply with future requirements of the state of Michigan as stated in an ACO amendment or the Drainage District's Permit MI0048046 resulting from the Drainage District accepting flow from the EFSD via the Walnut Lake Pump Station No. 1 force main to be stored and treated at the Drainage District's RTB.
4. Drainage District Reimbursement to EFSD. The Drainage District must pay the EFSD for its share of the operation, maintenance, and administration of the EFSD and related wastewater services at such amounts as the EFSD may establish from time to time based on the aggregate quantity of wastewater on a multi-year rolling average method entering

the EFSD attributable from the Drainage District or any other method as determined by the EFSD.

5. Limit on Flow Accepted, Dewatering, and Drainage District Operations. The amount of flow accepted from the EFSD by the Drainage District is limited to the operational capacity of the Walnut Lake Pump Station No. 1 force main. The Drainage District must accept flow from the EFSD in accordance with the EFSD Cohesive Operating Protocol, as amended. The amount and manner of flow accepted from the Drainage District by the EFSD when the Drainage District is dewatering or otherwise is limited by, and must be in compliance with, the ACO; the EFSD Cohesive Operating Protocol, as amended; and to the extent reasonably possible, the Comprehensive CSO RTB Operational Plan for the Drainage District, as amended; and the Drainage District's NPDES Permit, Permit No. MI0048046, as amended.
6. Term. The term of this Agreement will continue until December 31, 2051, unless extended by mutual written consent of the Parties.
7. General Conditions.
  - a. This Agreement must be construed under Michigan law, and if any part, term or provision of this Agreement is determined by a court of competent jurisdiction to be unlawful or unenforceable, such determination must not affect the validity and enforceability of the remaining parts, terms, or provisions of this Agreement.
  - b. This Agreement replaces and supersedes all prior oral or written agreements between the Parties concerning its purpose.
  - c. This Agreement sets forth the entire understanding between the Parties concerning its purpose. This Agreement may be amended only by written agreement of the Parties.
  - d. There are no intended third party beneficiaries to this Agreement.
  1. This Agreement does not, and is not intended to, impair, divest, delegate, or contravene any constitutional, statutory, or other legal right, privilege power, obligation, duty, or immunity of the Parties. The obligations in this Agreement are in the exercise or discharge of a governmental function and to serve the public health and welfare.
  - e. This Agreement is effective as of the date first written above.
  - f. This Agreement is binding on, and for the benefit of, the Parties and their respective their successors and assigns.

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

*[signatures on next page]*

DRAFT

**Evergreen Farmington Sanitary Drain Drainage District**

By: \_\_\_\_\_  
Jim Nash

Drainage Board of the Evergreen-Farmington  
Sanitary Drain Drainage District

\_\_\_\_\_  
Date: March \_\_, 2022

Approved at a meeting of the drainage board on March \_\_, 2022.

**Bloomfield Village CSO Drainage District**

By: \_\_\_\_\_  
Jim Nash

Drainage Board of the Bloomfield Village CSO  
Drainage District

\_\_\_\_\_  
Date: March \_\_, 2022

Approved at a meeting of the drainage board on March \_\_, 2022.

# Exhibit A

**EXHIBIT A**  
**CURRENT COST**  
**ALLOCATION**  
**METHODOLOGY**

The following methodology will be used to determine charges to the EFSD system (and corresponding credit to the Bloomfield Village CSO Drainage District). There will be no charges due to regulator operations. The methodology takes into account the flow accepted from the Walnut Lake Pump Station No 1. The values used as the example are for the rate period of January 1, 2021 through June 30, 2022.

CSO District

1. Determine the annual revenue requirement for the Bloomfield Village CSO Districts:

Use the total approved assess for the rate year	\$1,374,990
Subtract the EFSD Charges to the Bloomfield Village CSO Drainage District	(\$543,524)
<b>TOTAL Annual Operation Cost for the CSO</b>	<b>\$831,466</b>

2. Determine the average annual volume that passes through the Bloomfield Village CSO Districts as follows (rate year July 1 through June 30)

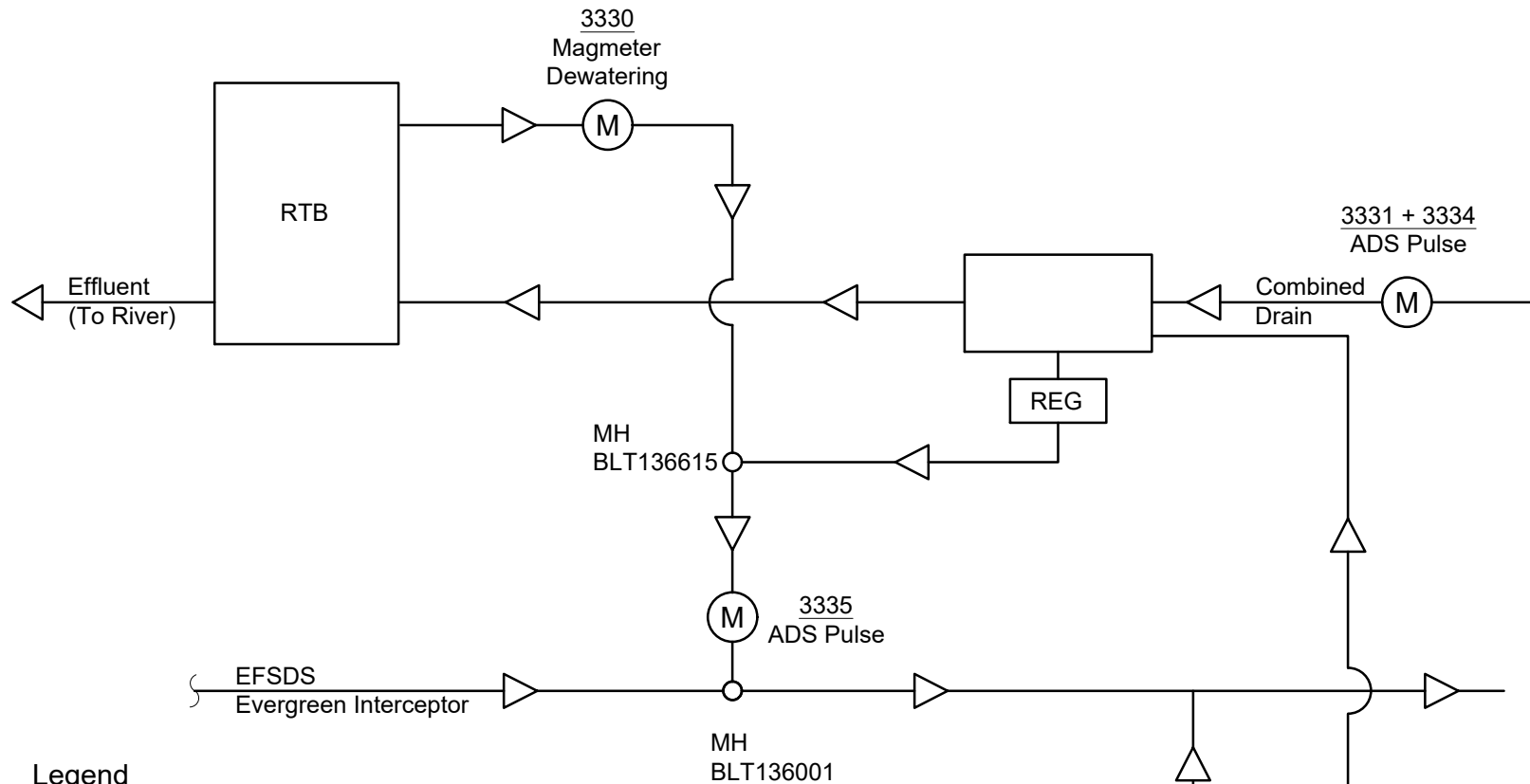
Pass Through Volume for 2018-2019	53,981 MCF
Pass Through Volume for 2019-20	35,386 MCF
Pass Through Volume for 2020-21 MCF	<u>21,320 MCF</u>
<b>AVERAGE PASS THROUGH VOLUME</b>	<b>36,896 MCF</b>

3. Calculate the Cost per volume by dividing total operating costs by 3-year average total pass through volume

TOTAL OPERATING COST PER MCF OF FLOW	(\$831,466 / 36,896)
	\$22.54/MCF

—

# Bloomfield Village Retention Treatment Basin (BVRTB) Metering Schematic



## Legend

- REG Regulator
- RTB Retention Treatment Basin
- M Meter
- G Control Gate
- Flow Direction

## Pass-through Flow Calculation

Flow into Regulator Chamber  
 - Flow Towards EFSD that is not RTB Dewatering  
 Pass-through flow

$$\frac{(3331 + 3334 + \text{If}(\text{Gate towards RTB} = \text{Open}, \text{then } 4806, \text{else } 0)) - (3335 - 3330)}{\text{Pass-through flow}}$$



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

*For Shawn Phelps*

DATE: March 22, 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 March 15, 2022

<u>G/L Date</u>	<u>Ref No.</u>	<u>Paid To</u>	<u>For</u>	<u>Amount</u>
2/28/2022	V # 1591626	JCI Jones Chemicals Inc	Invoice # 879582 - Chlorination Supplies	\$ 3,433.60
			<b>Total</b>	<b>\$ 3,433.60</b>
2/28/2022	V # 1592217	ICS Integration Services LLC	Invoice # 2272 - Contracted Services - Proj # 1-3505	\$ 3,778.67
			<b>Project # 1-3505 Subtotal</b>	<b>\$ 3,778.67</b>
			<b>Total</b>	<b>\$ 7,212.27</b>

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

## **AGENDA**

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

March 22, 2022

1. Call meeting to order
2. Approve minutes of meeting of February 28, 2022
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$10,594,970
5. Present request for Board approval of payment of invoices and/or reimbursement from the Construction Fund in the amount \$1,856.15
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 \$160,326.58
7. Other business
8. Approve pro rata payment to Drainage Board members
9. Adjourn

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

February 28, 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 11:00 a.m. on the 28<sup>th</sup> day of February 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

David Woodward, Chairperson of the Oakland County Board of Commissioners

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

ABSENT: None.

Minutes of the meeting held January 25, 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 Razik Alsaigh, P.E., Operations Projects Engineer, dated February 22, 2022, requesting the Board to approve the uninitiated projects and amend project budgets using funds from Major Maintenance and Capital Improvement reserves was presented. It was moved by Markham, supported by Woodward, to approve the uninitiated projects and amend project budgets using funds from Major Maintenance and Capital Improvement reserves as presented.

ADOPTED: Yeas - 3  
Nays - 0

A memorandum from Razik Alsaigh, Civil Engineer III, dated February 22, 2022, requesting the Board to authorize staff to negotiate and enter into an as-needed contract with Michigan Air Products was presented. It was moved by Markham, supported by Woodward, to authorize staff to negotiate and enter into an as-needed contract with Michigan Air Products as presented.

ADOPTED: Yeas - 3  
Nays - 0

A request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund from the Construction Fund in the amount \$7,236.60 (as attached) was presented. It was moved by Markham, supported by Woodward, that the invoices in the amount of \$7,236.60 be paid as presented.

ADOPTED: Yeas - 3  
Nays - 0

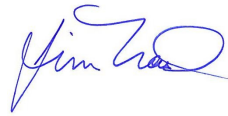
A request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund from the Maintenance Fund in the amount of \$288,850.12 (as attached) was presented. It was moved by Markham, supported by Woodward, that the invoices in the amount of \$288,850.12 be paid as presented.

ADOPTED: Yeas - 3  
Nays - 0

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

ADOPTED: Yeas - 3  
Nays - 0

There being no further business, the meeting was adjourned.



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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 28<sup>th</sup> day of February 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: February 28, 2022

**OAKLAND COUNTY WATER RESOURCES COMMISSIONER  
OPERATIONS AND MAINTENANCE DIVISION  
MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE  
Clinton River WRRF Drain**

Assessment for current fund balance and the following year of expenses: July 1, 2022 through June 30, 2023

Last Assessment (\$):	\$ 9,936,170.00
Date last assessment approved:	3/23/21
Unreserved and Undesignated Fund Balance as of 1/31/22	\$ 3,435,213.29
Capital Improvement Reserves as of 1/31/22	2,514,151.85
Major Maintenance Reserves as of 1/31/22	(1,379,797.67)
Emergency Reserves as of 1/31/22	698,750.00
Funds Available as of February 1, 2022	<u>\$ 5,268,317.47</u>

**OPERATIONS, MAINTENANCE & REPLACEMENT BUDGET for July 1, 2022 through June 30, 2023**

**Operating Expenses**

Sewage Treatment	\$ 6,917,580.00
Sewer System Maintenance	\$ 134,110.00
Sewer System Engineering	\$ 206,920.00
Septage Unloading Facility	\$ 19,120.00
Systems Control Unit	\$ 9,900.00
IPP	\$ 106,120.00
Laboratory	\$ 389,380.00
Mapping Unit	\$ 2,010.00
General and Administrative	\$ 1,157,970.00
<b>Total Operating Expenses</b>	<b>\$ 8,943,110.00</b>

**Revenue Requirements**

Operating Expense	\$ 8,943,110.00
Major Maintenance	\$ 412,000.00
Emergency Maintenance	\$ 200,000.00
Capital	\$ 1,300,000.00
<b>Total Revenue Requirements</b>	<b>\$ 10,855,110.00</b>
Non-Rate Revenue	\$ (260,140.00)
<b>Rate Required Revenue</b>	<b>\$ 10,594,970.00</b>

**Recommended July 1, 2022 through June 30, 2023 assessment:**

Total Anticipated Expenses for July 1, 2022 - June 30, 2023	\$ 10,594,970.00
Total Anticipated Funds Needed	<u>\$ 10,594,970.00</u>

**TOTAL RECOMMENDED ASSESSMENT**

**\$ 10,594,970.00**

Billings are to be at the end of the calendar quarters.

Prepared by: Leo Lease  
Leo Lease - Senior Financial Analyst

Date: 3/17/2022

Approved by: Steven Korth  
Steve Korth - Manager, Water Resources Commissioner

Date: March 22, 2022

## SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE OF THE CLINTON RIVER WRRF DRAIN

Public Corporation	Percentage of Apportionment	Total Amount of Assessment
City of Pontiac	54.340%	\$ 5,757,306.70
Clinton-Oakland SDS	45.660%	\$ 4,837,663.30
<b>Total</b>	<b>100.00000%</b>	<b>\$ 10,594,970.00</b>

**Assessment Due Date:** To be collected on the following quarters: 9/30/2022, 12/31/2022, 3/31/2023 and 6/30/2023.

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Clinton River WRRF Drain for the period July 1, 2022 through June 30, 2023 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

\_\_\_\_\_  
 Jim Nash  
 Chairman of the Drainage Board for the Clinton River WRRF Drain

The foregoing Special Assessment Roll for the maintenance of the Clinton River WRRF Drain was approved by the Drainage Board on \_\_\_\_\_.

\_\_\_\_\_  
 Jim Nash  
 Chairman of the Drainage Board for the Clinton River WRRF Drain



**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 *For Shawn Phelps*  
OCWRC Accounting

**DATE:** March 22, 2022

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

	Ref No.	For	Amount
CDM Smith Michigan, Inc	TBP	Invoice # 58 - Engineering Admin 1/30/22 - 2/26/22 - Proj # 1-2181	1,856.15
		<b>Total for Project # 1-2181</b>	<b>\$ 1,856.15</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

*Shawn Phelps*

**DATE:** March 22, 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 February 15, 2022 to March 15, 2022.

Payable To	Ref No.	For	Amount
USA Blue Book	Feb 2022 Pcard	Pcard - Chemical Treatment	\$ 1,454.81
USA Blue Book	Feb 2022 Pcard	Pcard - Chemical Treatment	2,245.82
The Macomb Group, Inc	Feb 2022 Pcard	Pcard - Contracted Services	7,956.55
Grainger	Feb 2022 Pcard	Pcard - Materials and Supplies	1,439.44
Swaby Manufacturing Company	Feb 2022 Pcard	Pcard - Materials and Supplies	1,340.00
Washington Elevator	V # 1588799	Invoice # 2-1021146 - Material and Supplies	1,269.50
PVS Nolwood Chemicals, Inc	TBP	Invoice # 749211 - Chemical Treatment	8,315.56
PVS Nolwood Chemicals, Inc	TBP	Invoice # 751289 - Chemical Treatment	8,581.15
PVS Nolwood Chemicals, Inc	TBP	Invoice # 750600 - Chemical Treatment	8,046.99
PVS Technologies Inc	TBP	Invoice # 304962 - Chemical Treatment	2,240.00
PVS Technologies Inc	TBP	Invoice # 305697 - Chemical Treatment	4,961.60
PVS Technologies Inc	TBP	Invoice # 305804 - Chemical Treatment	2,244.48
PVS Technologies Inc	TBP	Invoice # 306351 - Chemical Treatment	4,692.80
PVS Technologies Inc	TBP	Invoice # 306358 - Chemical Treatment	2,219.84
PVS Technologies Inc	TBP	Invoice # 307118 - Chemical Treatment	4,501.28
Jones Chemicals Inc	TBP	Invoice # 878847 - Chemical Treatment	2,535.36
CleanNet of Greater Michigan, Inc	V # 1587398	Invoice # DET0099014 - Contracted Services - March 2022	1,601.38
AECOM Technical Services Inc	TBP	Invoice # 35515-0621E - Contracted Services	930.00
AECOM Technical Services Inc	TBP	Invoice # 35515-0921E - Contracted Services	930.00
Duperon Corporation	TBP	Invoice # 23682 - Material and Supplies	2,207.48
Dickinson Wright PLLC	TBP	Invoice # 1663265 - Legal Services - 01/31/2022	8,361.84
D3W Industrials	V # 1591624	Invoice # 3230 - Material and Supplies	5,775.00
D3W Industrials	TBP	Invoice # 3250 - Material and Supplies	5,775.00
Primodel US Incorporated	TBP	Invoice # 2022-0123 - Engineering Services	525.00
Crane Technologies	TBP	Invoice # 0001727-IN - Contracted Services	2,146.00
Limbach Company LLC	TBP	Invoice # 12170 - Contracted Services	2,009.00
Limbach Company LLC	TBP	Invoice # 12312 - Contracted Services	2,852.00
Waste Management	TBP	Invoice # 8593738-1714-6 - Garbage & Rubbish Disposal	2,055.56
		<b>Subtotal</b>	<b>\$ 99,213.44</b>
Fishbeck, Thompson, Carr & Huber Inc	TBP	Invoice # 409021 - Engineering Services - 02/18/22 - Proj #1-3042	\$ 7,443.50
		<b>Subtotal - Project 1-3042</b>	<b>\$ 7,443.50</b>
Ch2m Hill Engineers Inc	TBP	Invoice # 683676CH041 - Contracted Services - Proj #1-3338	\$ 6,858.24
		<b>Subtotal - Project 1-3338</b>	<b>\$ 6,858.24</b>
AECOM Technical Services, Inc	V # 1591620	Invoice # 20000592696 - Contractor Payments - Proj #1-3429	\$ 22,633.17
AECOM Technical Services, Inc	V # 1591613	Invoice # 20000596530 - Contractor Payments - Proj #1-3429	1,984.00
Limbach Company LLC	TBP	Invoice # 1321387-02 - 02/28/22 - Contracted Services - Proj #1-3429	15,114.23
		<b>Subtotal - Project 1-3429</b>	<b>\$ 39,731.40</b>
Gamalski Building Specialties, Inc	TBP	Invoice # 104371 - Contracted Services - Proj #1-3451	\$ 4,200.00
Mark 1 Restoration Services	TBP	Invoice # 2201 - 3 - Contracted Services - Proj # 1-3451	2,880.00
		<b>Subtotal - Project 1-3451</b>	<b>\$ 7,080.00</b>
		<b>Total</b>	<b>\$ 160,326.58</b>

## **10. George W. Kuhn Drain**

## AGENDA

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

March 22, 2022

1. Call meeting to order
2. Approve minutes of meeting of February 28, 2022
3. Public Comments
4. Present Memorandum from Joel Kohn, Environmental Planner, dated March 22, 2022, requesting the Board to receive and file the Phase 3 Southeast Oakland County Wet Weather Sampling Report from Environmental Consulting & Technology, Inc.
5. Present Memorandum from Lynne Seymour, P.E., Chief Engineer dated March 22, 2022, requesting the Board to authorize Hubbell, Roth, & Clark, Inc. to commence work outline in its December 20, 2021 proposal for a not-to-exceed cost of \$26,200
6. Present Memorandum from Lesli Maes, Operations Engineer, dated March 22, 2022, requesting the Board to approve a 3-year non-purchasing contract with Brehob Corporation for the not-to-exceed amount of \$150,000
7. Present Memorandum from George Nichols, P.E. Civil Engineer III, dated March 22, 2022, requesting the Board to award the Campbell Road Siphon Cleaning to Doestch Environmental Services in the amount of \$179,500 and authorize the allocation of funds from the Drainage District Sewage Disposal Fund
8. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$8,880.70
9. Other business
10. Approve pro rata payment to Drainage Board members
11. Adjourn

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

February 28, 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 11:00 a.m. on the 28<sup>th</sup> day of February 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

David Woodward, Chairperson of the Oakland County Board of Commissioners

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

ABSENT: None.

Minutes of the meeting held January 25, 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 February 22, 2022, requesting the Board to approve the major maintenance and capital improvement projects listed for the not to exceed amount of \$416,000 was presented. It was moved by Markham, supported by Woodward, to approve the major maintenance and capital improvement projects listed for the not to exceed amount of \$416,000 as presented.

ADOPTED: Yeas - 3  
Nays - 0

A memorandum from George P. Nichols, P.E., Civil Engineer III, dated February 22, 2022, requesting the Board to authorize staff to generate specifications and obtain quotes for siphon cleaning and authorize the allocation of \$50,000 from the Drainage District Sewage Disposal Fund was presented. It was moved by Markham, supported by Woodward, to authorize staff to generate specifications and obtain quotes for siphon cleaning and authorize the allocation of \$50,000 from the Drainage District Sewage Disposal Fund as presented.

ADOPTED: Yeas - 3  
Nays - 0

A memorandum from Joel Kohn, Environmental Planner, dated February 22, 2022, requesting the Board to authorize staff to purchase YSI Prosample, P-12 autosampler with associated accessories and a maintenance service agreement at a cost of \$31,638.31 was presented. It was moved by Markham, supported by Woodward to authorize staff to purchase YSI Prosample, P-12 autosampler with associated accessories and a maintenance service agreement at a cost of \$31,638.31 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 \$9,535 (as attached) was presented. It was moved by Markham, supported by Woodward to approve the payment of invoices and reimbursement of the Drain Revolving Fund in the amount of \$9,535.

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 for the George W. Kuhn Drain, Oakland County, Michigan, held on the 28<sup>th</sup> day of February 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.

---

Jim Nash, Chairperson

Dated: February 28, 2022

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

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

**FROM: Joel Kohn, Environmental Planner**

**SUBJECT: Phase 3 Southeast Oakland County Wet Weather Sampling Report**

**DATE: March 22, 2022**

Environmental Consulting & Technology, Inc. (ECT) performed wet weather sampling at the outlets of several county storm drains as part of ongoing sampling work within the George W. Kuhn and Bear Creek Drainage Districts. The attached report describes the results of wet weather sampling efforts completed between May and June 2021 within the separate storm drain portions of the GWK and Bear Creek drainage districts. The purpose of this sampling was to determine if illicit discharges containing sewage sources were impacting the subject county drains. Specifically, the sampling targeted first flush conditions to identify if stormwater from the start of rain events had elevated E. coli levels. Additionally, one rain event was sampled during high flow conditions to determine if there are high level overflows between the sanitary sewers to the storm drains.

Sampling was conducted based on the recommendations from the 2019 wet weather sampling efforts described in George W. Kuhn Drainage District Wet Weather Outfall Sampling Report (ECT 2020b). As in 2018, sampling was carried out by ECT under the direction of the Oakland County Water Resources Commissioner's Office (WRC) in collaboration with the City of Madison Heights.

This work supports Oakland County's municipal separate storm sewer system (MS4) permit. Specifically, the sampling supports the county's illicit discharge elimination and total maximum daily load (TMDL) programs, requiring the County to identify and correct illicit discharges entering their storm drains. In terms of illicit discharges, discharges impacted by fecal bacteria, and more specifically human fecal bacteria, are of the greatest concern because of the potential to carry viruses and other pathogenic bacteria, which could impact human health.

**Recommended Action: To receive and file ECT's final report**





# > Southeast Oakland County Wet Weather Sampling Report

January 2022

ECT No. 180209

OAKLAND COUNTY WATER RESOURCES COMMISSIONER'S OFFICE  
Waterford, MI 48328

**ECT**


1155 Brewery Park Blvd., Suite 115  
Detroit, Michigan 48207  
[www.ectinc.com](http://www.ectinc.com)

## Document Review

The dual signatory process is an integral part of Environmental Consulting & Technology, Inc.'s (ECT's) Document Review Policy No. 9.03. All ECT documents undergo technical/peer review prior to dispatching these documents to any outside entity.

This document has been authored and reviewed by the following employees:

Emily Levine  
\_\_\_\_\_  
Author

  
\_\_\_\_\_  
Signature

1-13-2022  
\_\_\_\_\_  
Date

Annette DeMaria  
\_\_\_\_\_  
Peer Review

  
\_\_\_\_\_  
Signature

1-13-2022  
\_\_\_\_\_  
Date

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## List of Acronyms and Abbreviations

ECT	Environmental Consulting & Technology, Inc.
EPA	U.S. Environmental Protection Agency
GWK RTB	George W. Kuhn Retention Treatment Basin
MPN	Most probable number
MS4	Municipal separate storm sewer system
MST	Microbial source tracking
PTD	Permitted treated discharge
QA/QC	Quality assurance/quality control
RTB	Retention treatment basin
TMDL	Total maximum daily load
WRC	Oakland County Water Resources Commissioner's Office
WQS	Water quality standards

## Executive Summary

Environmental Consulting & Technology, Inc. (ECT) performed wet weather sampling at the outlets of several county storm drains within the southeast portion of Oakland County. The purpose of this sampling was to screen for the presence of illicit discharges, primarily during first flush conditions, to determine if the drains were being impacted by sanitary wastewater. All sites were screened for *E. coli* and a human fecal microbial source tracking (MST) marker to determine if any identified bacteria sources were from the human intestinal tract.

Although most *E. coli* values exceeded the state's partial body contact standards, human fecal sources were not significant on the Henry Graham (North and South), Wilson, Walker, and GWK (North and South) drains. Human fecal sources are suspected on the Kutchey and Sharkey drains and ECT recommends illicit discharge investigations on these drains.

The permitted treated discharge (PTD) from the George W. Kuhn Retention Treatment Basin (GWK RTB) had a much lower *E. coli* concentration than what was found concurrently in the receiving water, Red Run Drain at Dequindre Road. This phenomenon was also observed in previous wet weather investigations and indicates that stormwater, rather than the PTD, is generally driving any downstream *E. coli* impairments in the Red Run Drain. Furthermore, as indicated above, the source of the *E. coli* bacteria is more likely generated from nonpoint, rather than sewage sources.

## 1.0 Introduction

This report describes the results of wet weather sampling efforts completed between May and June 2021 within the separate storm drain portions of the GWK and Bear Creek drainage districts. The purpose of this sampling was to determine if illicit discharges containing sewage sources were impacting the subject county drains. Specifically, the sampling targeted first flush conditions to identify if stormwater from the start of rain events had elevated *E. coli* levels. Additionally, one rain event was sampled during high flow conditions to determine if there are high level overflows between the sanitary sewers to the storm drains.

Sampling was conducted based on the recommendations from the 2019 wet weather sampling efforts described in *George W. Kuhn Drainage District Wet Weather Outfall Sampling Report* (ECT 2020b). As in 2018, sampling was carried out by ECT under the direction of the Oakland County Water Resources Commissioner's Office (WRC) in collaboration with the City of Madison Heights.

This work supports Oakland County's municipal separate storm sewer system (MS4) permit. Specifically, the sampling supports the county's illicit discharge elimination and total maximum daily load (TMDL) programs, requiring the County to identify and correct illicit discharges entering their storm drains. In terms of illicit discharges, discharges impacted by fecal bacteria, and more specifically human fecal bacteria, are of the greatest concern because of the potential to carry viruses and other pathogenic bacteria, which could impact human health.

Drains within the Bear Creek and GWK drainage districts are tributary to the Red Run, which is impaired for *E. coli* as described in the Red Run Drain and Bear Creek *E. coli* TMDL Assessment.

### 1.1 **Background**

This sampling was performed following one of the recommendations of the 2019 wet weather sampling effort, which called for first flush sampling in the GWK Drainage District to determine if undetected sewage sources were impacting stormwater. During planning efforts, WRC added sampling locations within the Bear Creek Drainage District since it is also a tributary to the Red Run.

## 2.0 Methodology

### 2.1 Sampling Sites

Sampling sites were located along the major County Drains that drain Oakland County's portion of the Red Run watershed. Sites were either located near the drain outlets or near Dequindre Road, the jurisdictional boundary between Oakland and Macomb counties. Sampling locations were identified in the project sampling plan (ECT 2020a). However, during autosampler installation, three site locations were modified as follows:

- Sharkey Drain – this site was originally planned for MH074506, but it was moved a few hundred feet downstream. This was due to loose bricks in the manhole causing a confined space entry to install the flow meter to be deemed unsafe.
- Henry Graham North – this site was originally planned for MH04068. However, it was moved downstream in order to capture additional runoff from the businesses along Whitcomb St.
- Henry Graham South – this site was originally planned for MH04080. However, it moved because it was determined that the initial site was located offline of the main drain (due to an error in the GIS maps).

The resulting sampling sites are shown in Table 1 and Figures 1 & 2 with the site descriptions and coordinates provided in **Appendix A**.

**Table 1. Sampling Locations**

Drain	Manhole ID
Red Run at Dequindre Road	NA
GWK North (GWKN)	04039
GWK South (GWKS)	04028
Henry Graham North (HGN)	04075
Henry Graham South (HGS)	04071
Kutchey Drain (KUT)	119007
Sharkey Drain (SRK)	075503
Walker (WLK)	04011
Wilson (WIL)	01015



## **2.2 Sample Collection and Analytical Methods**

At each sample location except the Red Run, an ISCO 6712 automatic sampler was installed<sup>1</sup> inside the manhole structure and programmed to collect sample aliquots at 10-to-20-minute intervals. The sample aliquots were composited by the automatic sampler into one 10-liter bottle. This same process was followed at the Red Run, except the automatic sampler was installed along the streambank near the GWK RTB outlet access road.

At each location except the Red Run, ISCO 2150 flow meters were installed along with the two cellular modems (one for each autosampler and one for each flow meter). ECT planned to use the real-time water levels to trigger the samplers to sample first flush conditions. However, reliable communications with the flow meters were not obtained despite changes in the programming and configurations of the flow meter modem antennas. Therefore, the autosamplers were generally triggered remotely based on rainfall amounts measured at the GWK RTB. Sometimes it was necessary to trigger an autosampler manually because of a lack of reliable communication with the sampler modem. Additional installation and programming details can be found in the project sampling plan (ECT 2020a).

The ECT field team retrieved the composite sample collection bottle following completion of the program. Up to 10 aliquots were collected at each site. The composite bottle was closed and mixed before distribution to the laboratory bottles. Additionally, sample collection information and flow data were downloaded from the automatic sampler. The composite bottle was replaced with a new liner, the program was reset and the sampler returned to the manhole structure for the next rain event.

All samples were documented on a chain-of-custody (COC) form before being placed in an ice-chilled cooler for shipment to the laboratories for analyses. The water samples were submitted to qualified analytical laboratories for *E. coli* and the human microbial source tracking (MST) marker – HF183.

No sample was collected for the final sample event from Henry Graham North because the sample tubing disconnected from the sampler prior to sampler initiation. Additionally, the samples collected at Henry Graham South and Wilson drains for the final sample event were grab samples, not composites due to errors in the programming of the samplers.

---

<sup>1</sup>During sampler installation, a sewage odor was coming from MH074506 on the Sharkey Drain. This was reported to WRC, but no sources were identified.

### **2.3 Microbial Source Tracking Method**

The MST marker used for this project was HF183, which was analyzed by Oakland University. The marker is reported numerically, in gene copies/100 ml, indicating the relative amount of human fecal impact in each sample. This marker is useful in identifying bacteria from the human intestinal tract. Although not the only source of human *E. coli* in stormwater, an illicit discharge containing sanitary sewage is the most concerning source that may be indicated by the presence of the marker. Other non-sewage sources that may contain human bacteria include runoff from compost areas and leaky dumpsters that are contaminated by solid waste, such as used diapers.

The detection limit for HF183 is 95 gene copies/100 ml based on analysis of 100 ml of sample. A lack of detection indicates an absence of human fecal material, very low levels of fecal material, or sample matrix interference. Results at or above 95 gene copies/100 ml indicates that human fecal material contributed to the sample. Some municipalities have used a threshold of 1,000 gene copies/100 ml to determine when to conduct further investigations for human *E. coli* sources. Human fecal sources may be very difficult to locate in drains with less than 1,000 gene copies/100 ml. This is due to the variable quality of stormwater and the sensitivity of the method.

Unlike the *E. coli* analytical method which only enumerates live organisms, HF183 analysis enumerates both live and dead cells. This can result in discrepancies between the *E. coli* and HF183 results. A high HF183 level and a low *E. coli* concentration can occur when the sample includes disinfected volume from wastewater treatment facilities, including RTBs. This may also occur when the sample is impacted by an older illicit discharge. In both cases, the live organisms may not survive (due to treatment or natural die off), but the dead cells will be counted in the HF183 concentration.

Therefore, high HF183 and low *E. coli* on the Red Run Drain during a RTB overflow event, could be the result of the dead cells in the treated basin discharge rather than an illicit discharge from the storm drains or an impairment from the basin.

### **2.4 Wet Weather Events**

ECT conducted sampling during four wet weather events as outlined in Table 2. For events 1 – 3, with few exceptions, sampling did occur within first flush as defined by the U.S. Environmental

Protection Agency (EPA)<sup>2</sup>. The reported rainfall amounts reflect the total volume from the 24 hours prior to the beginning of sample collection. The beginning of discharge is noted in Table 2 to demonstrate whether samples during Events 1, 2 and 3 were taken during first flush. More detail on the timing of the samples can be found in **Appendix B** which provides the hydrographs and sampling durations for each site.

Sampling during Event 4 purposely corresponded with a permitted treated discharge (PTD) from the GWK RTB which began at 15:58 on 6/25/21 and ended at 15:18 on 6/26/21. This sampling was carried out during a PTD because it was assumed that this would indicate when the sanitary sewers were surcharged enough to overflow into the storm drains if high level overflows existed between the sewers and drains.

**Table 2. Sampling Dates, Times and Rainfall Amounts**

Event	Sampling Date	Beginning of Rainfall	Beginning of Discharge**	Sampling Period	24-hour Rainfall Amount (in)***
1	5/3/21	05:45	07:00 – 13:00	10:15 – 13:18	0.12
2*	5/23/21	17:00	18:00 – 22:30	18:15 – 20:28	0.33
3	5/26/21	06:00	08:00 – 14:00	09:15 – 12:37	0.26
4	6/25/21	07:00	****	16:17 – 21:54	1.64

\*Due to an autosampler error, sample collection was delayed at the SRK site during event 2. At this site, samples were collected on 5/24/21 from 11:28 to 13:38 with a 24-hr rainfall amount of 0.36”.

\*\*Estimated by when an increase in flow was sustained by at least 10% over base flow. Rounded to the nearest half-hour.

\*\*\*Rainfall data provided from WRC for rain gage 0880 located at the George W. Kuhn Retention Treatment Basin (RTB).

\*\*\*\*Flow meter batteries were dead, so flow data was not collected.

<sup>2</sup> For municipal sites complying with the Phase 1 MS4 requirements, the EPA defines first flush sampling as composite sampling that occurs over the first 3 hours of a stormwater discharge (EPA 1992). EPA also defines first flush sampling for industrial sites as sampling that occurs within 30 or 60 minutes of a discharge (EPA 1992). Although WRC is not a Phase 1 community, its MS4 is more like a Phase 1 community than an industrial site. Therefore, the former definition is most applicable to this project.

Figure 1. Sampling Locations: GWK Drainage District Sites

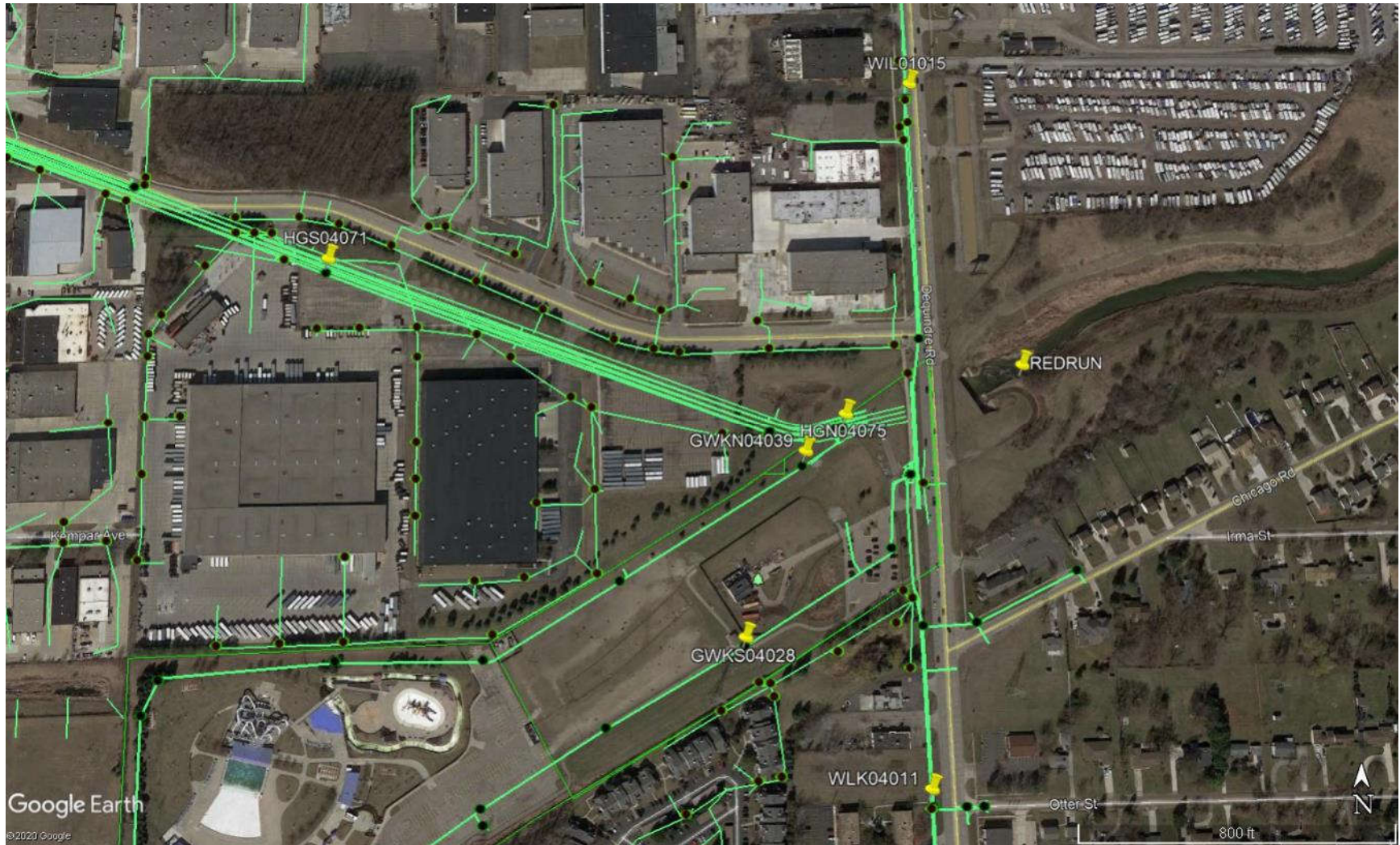




Figure 2. Sampling Locations: Bear Creek Drainage District Sites



### 3.0 Results

The *E. coli* and HF183 results for the first flush events (Events 1 – 3) are generally discussed separately from the Event 4 results due to the differing rainfall amounts during the events.

#### 3.1 *E. coli* Concentrations

ECT observed a wide distribution of *E. coli* concentrations across the sites. However, none were below the state’s full-body contact standard of 300 MPN/100 ml. Most of the samples had *E. coli* concentrations above 10,000 MPN/100 ml, with 82% of the results exceeding the state’s partial body contact standard of 1,000 MPN/100 ml for *E. coli* (Table 3).

This assessment excludes the Event 4 concentrations for GWK South and the Red Run due to the unusually low *E. coli* concentrations of 1 MPN/100 ml reported for these sites. At the Red Run, it is anticipated that the GWK PTD impacted the results. In addition, the GWK South sampling location was likely impacted by backwater conditions from the RTB.

**Table 3. *E. coli* Results Summary for Individual Samples**

<b><i>E. coli</i> (MPN/100 ml)</b>	<b>Number of Samples</b>
< 300	0 (0%)
301 – 1,000	6 (18%)
1,001 – 10,000	10 (30%)
> 10,000	17(52%)

Based on the site geometric means for Events 1 – 3, ECT found the highest *E. coli* concentrations on the Kutchey and Sharkey drains, exceeding 11,000 MPN/100 ml. The lowest concentration was found on the Henry Graham South, where the geometric mean was 2,970 MPN/100 ml (Table 4). This is much different than what was found during Event 4 where the Henry Graham South had the highest *E. coli* concentration at 14,640 MPN/100 ml and the Wilson and Kutchey drains had the lowest concentrations.

Of the first flush events, the 0.12-inch event (Event 1) produced the lowest individual *E. coli* concentrations at all sites (Table 4). This was supported by the event geometric means which were lowest for Event 1.

The Red Run *E. coli* results were similar to the *E. coli* geometric mean of the tributary drains (Table 4). This indicates that the *E. coli* sources impacting the tributary drains and the Red Run are generally similar in nature regardless of the rainfall volume. This makes sense because many of the drains are tributary to the Red Run sampling site.

**Table 4. *E. coli* Results (MPN/100 ml)**

	Event 1	Event 2	Event 3	First Flush	Event 4
<b>Date</b>	<b>5/3/2021</b>	<b>5/23/2021</b>	<b>5/26/2021</b>	<b>Site</b>	<b>6/25/2021</b>
<b>Rainfall (24 hr)</b>	0.12"	0.33"	0.26"	<b>Geomean</b>	1.02" to 1.64"
Kutchey	2,489	24,196	24,196	11,337	2,350
Sharkey	14,136	24,196	19,863	18,940	8,420
Henry Graham N	909	7,701	17,329	4,950	NS
Henry Graham S	865	2,142	14,136	2,970	14,640
Wilson	3,654	24,196	10,462	9,743	1,970
Walker	909	24,196	24,196	8,104	7,670
GWK North	933	24,196	11,199	6,323	5,560
GWK South	691	24,196	9,804	5,473	*
Red Run at Dequindre	934	19,863	24,196	7,657	*
<b>Event Geometric (all sites)</b>	<b>1,562</b>	<b>15,922</b>	<b>16,254</b>		<b>6,768</b>
<b>Event Geometric (excluding the Red Run)</b>	<b>1,666</b>	<b>15,487</b>	<b>15,465</b>		<b>N/A</b>

\*See explanation in Section 3.1

The result was greater than the upper detection limit, so the upper detection limit was used for statistics.

N/A = Not applicable. NS = No sample was collected.

### 3.2 Human MST Results

Excluding the Red Run, three drains had individual HF183 concentrations that exceeded 1,000 gene copies/100 ml: Sharkey, Kutchey and Henry Graham North drains (Table 5). The Sharkey and Kutchey drains were consistently above 1,000 genes copies/100 ml during all rain events, but the Kutchey concentrations (individual and geometric mean) were generally an order of magnitude higher than the Sharkey concentrations.

This assessment excludes the results found at GWK South and Red Run during Event 4 which were 2,237,895 and 3,553,684 gene copies/100 ml, respectively. As discussed in Section 3.1, these sites were suspected to be impacted by treated water within and discharging from the GWK RTB. The high counts are due to the dead *E. coli* cells expected to be found in the PTD. This suspicion is supported by the August 1, 2018 wet weather sampling results which show elevated *Bacteroides* concentrations at both GWK South and the Red Run during a PTD (ECT 2020b).

HF183 concentrations were generally lower than *E. coli* concentrations. However, during 3 of the 4 events, the Kutchey Drain had higher HF183 concentrations than *E. coli* concentrations. This indicates that dead cells are likely being captured in HF183 result. This suggests that a human source is impacting this drain, although the source may be located further up the drain, allowing organisms to die off before reaching the sampling location at the drain outlet. Alternatively, the high HF183 and low *E. coli* could be the result of an older contamination event.

**Table 5. HF183 Results (gene copies/100 ml)**

	Event 1	Event 2	Event 3	First Flush Site Mean	Event 4
Date	5/3/2021	5/23/2021	5/26/2021		6/25/2021
Rainfall (24 hr)	0.12"	0.33"	0.26"		1.02" to 1.64"
Kutchey	81,747	5,221	39,221	42,063	16,000
Sharkey	7,158	3,200	1,768	4,042	2,926
Henry Graham N	2,800	743	95	1,213	NS
Henry Graham S	396	406	112	305	270
Wilson	95	95	109	100	427
Walker	469	103	606	393	926
GWK North	375	95	484	318	884
GWK South	246	396	493	378	*
Red Run at Dequindre	2,421	1,516	240	1,392	*
<b>Event Mean (all sites)</b>	<b>10,634</b>	<b>1,308</b>	<b>4,792</b>		<b>3,572</b>
<b>Event Mean (excluding the Red Run)</b>	<b>11,661</b>	<b>1,282</b>	<b>5,361</b>		<b>N/A</b>

\*See explanation in Section 3.2

N/A = Not applicable. NS = No sample was collected.

### 3.3 Red Run Drain

The Red Run Drain at Dequindre Road was sampled between 4:17 pm and 15:46 pm during the final sampling event. Sampling occurred within 20 minutes of the beginning of the PTD from the GWK



RTB. The *E. coli* concentration in the Drain was < 1 MPN/100 ml (Table 6). The corresponding geometric mean *E. coli* concentration of the RTB discharge taken at 16:30 was 227 MPN/100 ml.

**Table 6. Red Run Drain Results during Permitted Treated Discharge**

Site	6/25/21
	<i>E. coli</i>
24-hr Rainfall	1.02"
Red Run at Dequindre Rd	< 1
GWK RTB PTD	227

*E. coli* (MPN/100 ml)

### 3.4 Quality Assurance Results

Duplicate samples from Events 1 and 2 did not pass the QA/QC assessment for *E. coli* analysis. Both samples did not fall within the IDEXX Confidence Limits as established by the manufacturer (Table 7). This is possibly due to deviation with repeat samples and the difference is increased when using a dilution factor. However, the reason for this large difference between regular and duplicate sample results is unclear.

Duplicate samples from Events 3 and 4 did pass the QA/QC assessment for *E. coli* analysis, as they fell within the IDEXX Confidence Limits as established by the manufacturer. This provided confidence that these sampling results accurately reflect the conditions of the sample streams at the time of sample collection.

In addition, all duplicate samples for human MST marker were the same order of magnitude as the regular sample results.

All blank samples had non-detectable levels for *E. coli* and the human MST marker. This not only indicated that the field staff was able to collect samples without cross contamination but also indicated that the laboratories processed samples in a clean environment without cross contamination.

**Table 7. Quality Assurance Results**

Event	Parameter*	Regular Sample Result	Duplicate Sample Result	IDEXX Confidence Limits (MPN/100 ml)		Was Duplicate Sample within Confidence Limits?
				Lower	Upper	
1	<i>E. coli</i>	14,136	24,196	9,249	21,016	No
2		7,701	17,329	5,490	10,940	No
3		19,863	17,329	12,220	33,002	Yes
4		7,670	9,330	5,490	10,940	Yes
1	HF183	7158	5648			
2		743	623			
3		1768	2204			
4		926	314			

\**E. coli* (MPN/100 ml). HF183 (gene copies/100 ml)

## 4.0 Discussion

### 4.1 E. coli Assessment

Although generally higher, the first flush *E. coli* geometric means are the same order of magnitude as what was found previously in 2018 and 2019 (Table 8). This is despite being taken during different points of the hydrograph. The one exception to this is the 2019 mean for the Red Run which was an order of magnitude lower than 2018 and 2021. Only drains that were sampled at consistent locations were included in Table 8.

**Table 8. Comparison of Historical *E. coli* Geometric Means**

Drain	Wet Weather Geometric Mean (MPN/100 ml)		
	2021	2019	2018
Wilson	9,743		5,855
Walker	8,104	2,440	4,816
GWK North	6,323		8,291
GWK South	5,473	9,115	3,921
Red Run at Dequindre Rd	7,657	520	3,091

The data from Events 2 and 3 suggest that 0.25 to 0.33" storm events produced lower *E. coli* concentrations in the drains than a 0.1" event. Event 4 data also suggests that the Red Run Drain has lower *E. coli* concentrations during a PTD. This may be due to a combination of factors including: 1) the PTD is diluting the *E. coli* concentrations, 2) the increased volume of runoff from the tributary drain is diluting the *E. coli* concentrations, and 3) organism die off caused by the chlorinated PTD. However, given the high amount of HF183 in the Red Run and consistent amounts of HF183 in the tributary drains, it appears that PTD is the primary reason for the lower *E. coli*.

### 4.2 Source Assessment

To provide context to the results, the prevalent source of *E. coli* was assessed for each sampling site during each event based on the *E. coli* and HF183 concentrations. The criteria in Table 9 were used to determine if a source was Human, Indeterminate, Animal, or not present. Table 9 was slightly modified from the protocol used previously (ECT 2020b) to account for the lower detection limit provided by the HF183 method. Another change from the previous protocol is the relabeling of the

Human-smaller category with Indeterminate. This was done in consultation with the laboratory at Oakland University to acknowledge the uncertainty in interpreting limited HF183 data.

**Table 9. Criteria for Prevalent Source Determination**

Prevalent Source	<i>E. coli</i> Concentration (MPN/100 ml)		HF183 Concentration (gene copies/100 ml)
None	< 300	and	< 95
Animal	> 1,000	and	< 95
Undetermined	> 300	and	> 95
Human	> 1,000	and	> 1,000

Based on the protocol, the Kutchey and Sharkey drain samples were categorized as Human during all events, as shown in Table 10. However, most of the sites were classified as Indeterminate, indicating that *E. coli* concentrations were between 300 and 1,000 MPN/100 ml and HF183 concentrations were between 95 and 1,000 gene copies/100 ml. This indicates that although human fecal *E. coli* was found, the sources may be very difficult to locate given the variable quality of stormwater and the sensitivity of the HF183 test method. The source type only indicates the nature of the most prevalent source. It is not meant to indicate that less substantial sources are not impacting the drains during any given rain event.

**Table 10. Prevalent Sources for each Site by Sampling Event**

Drain	Event 1	Event 2	Event 3	Event 4
Kutchey	Human	Human	Human	Human
Sharkey	Human	Human	Human	Human
Henry Graham N	Indeterminate	Indeterminate	Animal	NS
Henry Graham S	Indeterminate	Indeterminate	Indeterminate	Indeterminate
Wilson	Animal	Animal	Indeterminate	Indeterminate
Walker	Indeterminate	Indeterminate	Indeterminate	Indeterminate
GWK North	Indeterminate	Animal	Indeterminate	Indeterminate
GWK South	Indeterminate	Indeterminate	Indeterminate	*

NS = No sample \*Not assessed due to the suspected impacts from a PTD.

## 5.0 Conclusions and Recommendations

### 5.1 Conclusions

The 2021 wet weather sampling revealed that human fecal sources are likely impacting the Kutchey and Sharkey drains during first flush conditions. The Kutchey Drain also may have a high-level overflow from the sanitary sewer.

The Event 4 sampling was purposely targeted to occur when the sanitary sewers were at capacity to determine if high level overflows from the sanitary sewer existed within the storm drain system. Based on the HF183 data, no overflows were identified except perhaps on the Kutchey Drain.

Stormwater is generally driving the *E. coli* impairments on the Red Run rather than the discharge from the GWK RTB. This is based on two findings. First, during a PTD from the GWK RTB, the *E. coli* concentration in the Red Run was lower than when the RTB was not discharging. Second, the PTD had low *E. coli* concentrations as measured by WRC staff. This phenomenon was reported in previous investigations (ECT 2020b, ECT 2021), as well.

Lastly, despite high *E. coli* concentrations on the Henry Graham (North and South), Wilson, Walker, and GWK (North and South) drains, the MST results didn't show a strong sewage signature. Therefore, nonpoint sources of *E. coli* are more like driving the *E. coli* concentrations in these drains. This finding is consistent with previous findings for the GWK North, Henry Graham (North and South), Walker and Wilson drains (ECT 2021).

### 5.2 Recommendations

ECT recommends that Illicit discharge investigations be conducted on Kutchey and Sharkey drains upstream of the sampling locations. If it is necessary to prioritize one drain over the other, investigations should occur on the Kutchey Drain first due to the high relative concentration of HF183 during all rain events and the potential for a high-level overflow. Investigations may require coordination with Macomb County, as these are intercounty drains. In addition, coordination is suggested with the cities of Hazel Park and Madison Heights, since the extent of WRC's jurisdiction is limited west of Dequindre Road.

These investigations should consider the impacts of the siphons that are located under I-696. These siphons are constantly submerged with stormwater, and they could be acting as a sink for bacteria.

In addition, if sampling wet weather events > 1", the GWK South sampling location should be moved upstream to avoid backwater effects from the GWK RTB.

Lastly, ECT recommends completing Tasks 3A and 3B from this project's proposal. This would help meet a secondary goals of the sampling which were to determine pollutant loads associated with the drains and the GWK PTD and provide a better understanding of the water quality of the GWK PTD and in light of other RTBs in the region.

## 6.0 References

Environmental Consulting & Technology, Inc (ECT). *George W. Kuhn Drainage Area Stormwater Assessment Sampling Plan: Phase 3*. November 2020a.

Environmental Consulting & Technology, Inc (ECT). *George W. Kuhn Drainage District Wet Weather Outfall Sampling Report*. April 2020b.

Environmental Consulting & Technology, Inc (ECT). *George W. Kuhn Drainage District Wet Weather Outfall Sampling Report Supplement*. June 2021.

Michigan Department of Environment, Great Lakes and Energy (EGLE). *Industrial Storm Water Certified Operator Training Manual*. May 2020

U.S. Environmental Protection Agency (EPA). *NPDES Storm Water Sampling Guidance Document*. July 1992. EPA 833-8-92-001: <https://www3.epa.gov/npdes/pubs/owm0093.pdf>

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## Appendix A Sampling Site Descriptions



1. Red Run Drain – Red Run is located east of Dequindre Road on the south side of the GWK RTB outlet behind a locked fence. The sample site is approximately 140' downstream of the GWK RTB outlet. 42.5249794802, -83.0856413888
2. GWK Drain North Branch – GWKN04039 is located inside the dog park, east and south of the 4<sup>th</sup> pine tree west of Dequindre Road. It can be found by walking north from the gate entrance of Dog Run A. 42.5242860599, -83.0877071041
3. GWK Drain South Branch – GWKS04028 is located by the gazebo in the dog park west of the parking lot. 42.523026, -83.088310
4. Henry Graham Drain North – HGN04075<sup>3</sup> is located in the grass north of the fence between the dog park and the UPS parking lot. It can be found by walking west along the fence from Dequindre Road. 42.5246491912, -83.0872895188
5. Henry Graham Drain South – HGS04071<sup>4</sup> is located in the UPS Customer Center parking lot. It is marked off with traffic cones to prevent a vehicle from parking over it. 42.5257017226, -83.0922863424
6. Kutchey Drain – KUT119007 is located in the roadway in front of 2140 Stephens, Westview Baptist Church. 42.4690955711, -83.0817443878
7. Sharkey Drain – SRK075503<sup>5</sup> is located in the roadway in front of 2221 Frazho Road. 42.4838552777, -83.0814632465
8. Walker Drain – WLK04011 is located in the sidewalk space near the north corner of Cambridge Nursing Centre. 42.521885, -83.086546
9. Wilson Drain – WIL01015 is located in the southbound lane of Dequindre near the curb. It is at the southern driveway to East-Lind Heat Treat. 42.527018, -83.086621

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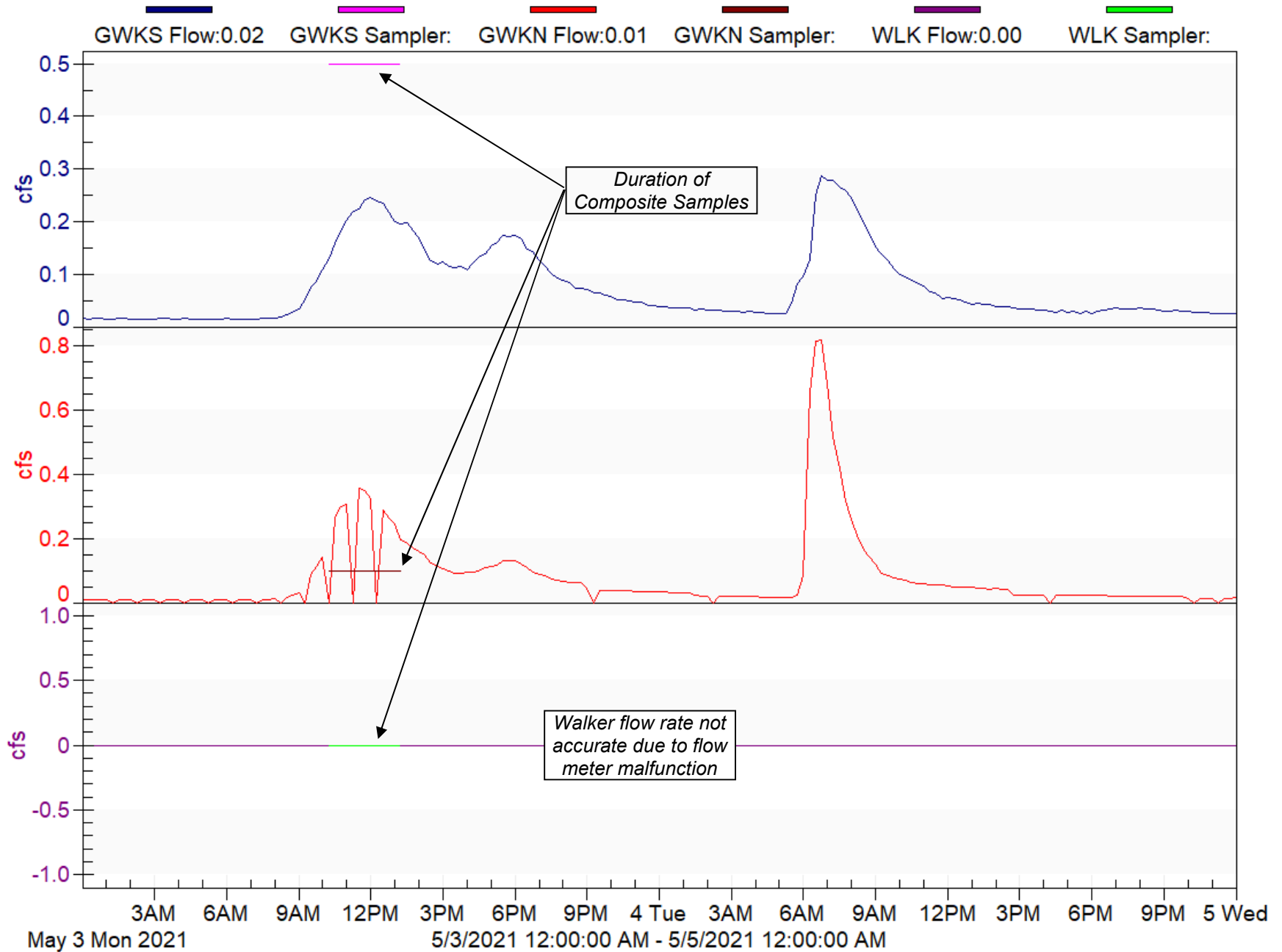
<sup>3</sup> Updated 11-23-20

<sup>4</sup> Updated 11-23-20

<sup>5</sup> Updated 11-23-20

## Appendix B Hydrographs and Sampling Durations

### Event 1 Flow Rates GWKS, GWKN, WLK

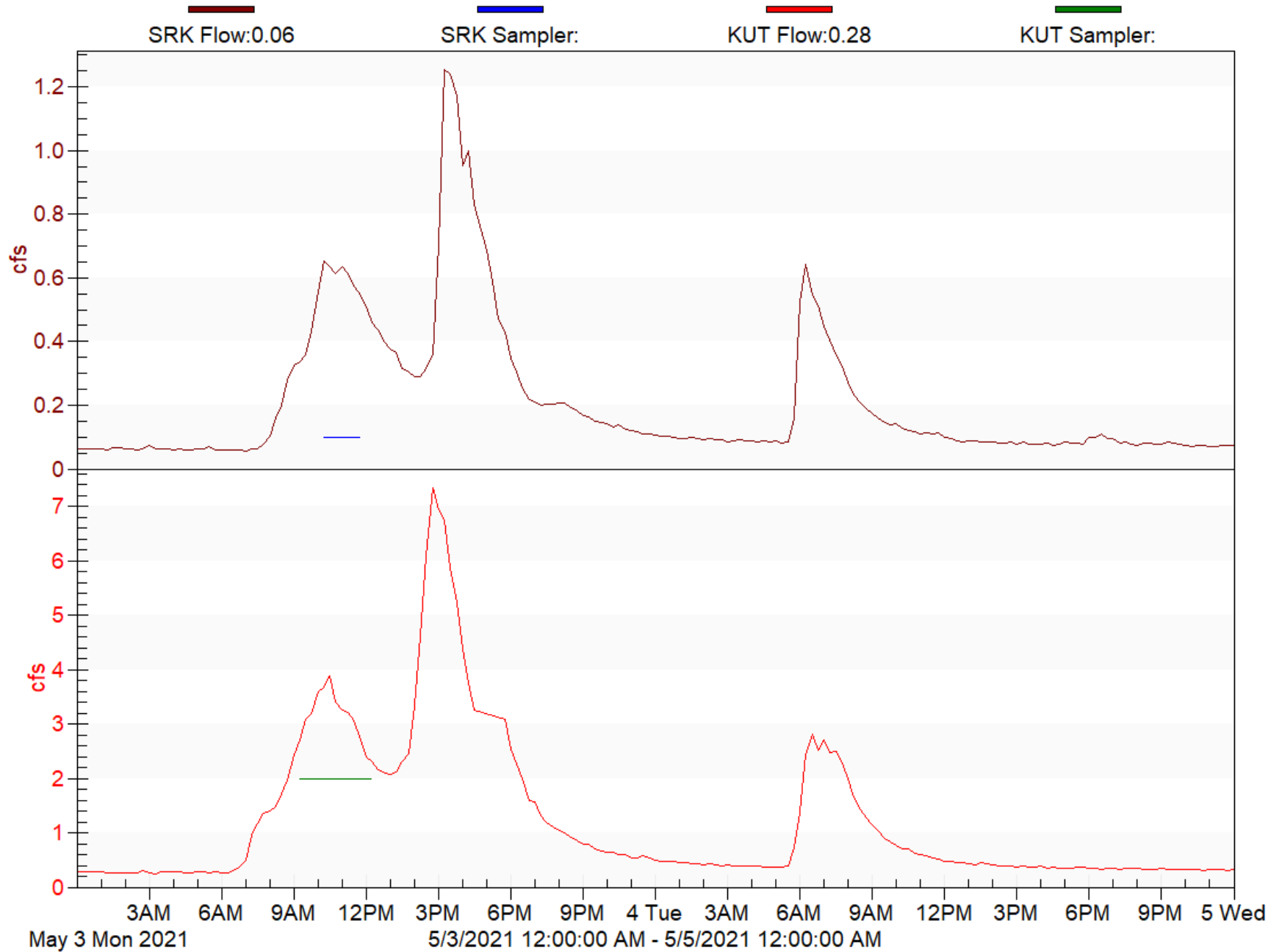


### Event 1 Flow Rates

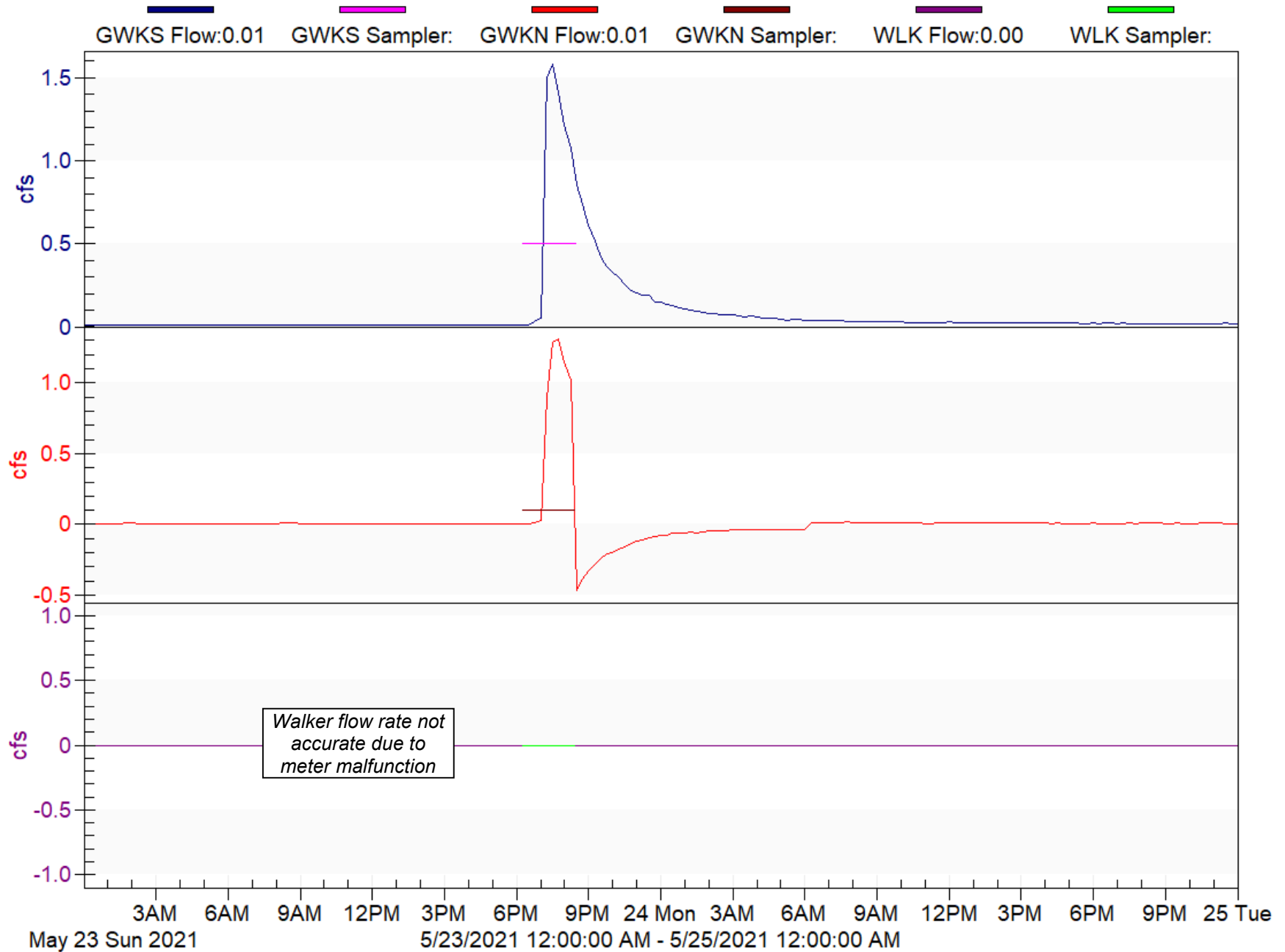
HGS, HGN, WIL



### Event 1 Flow Rates SRK, KUT

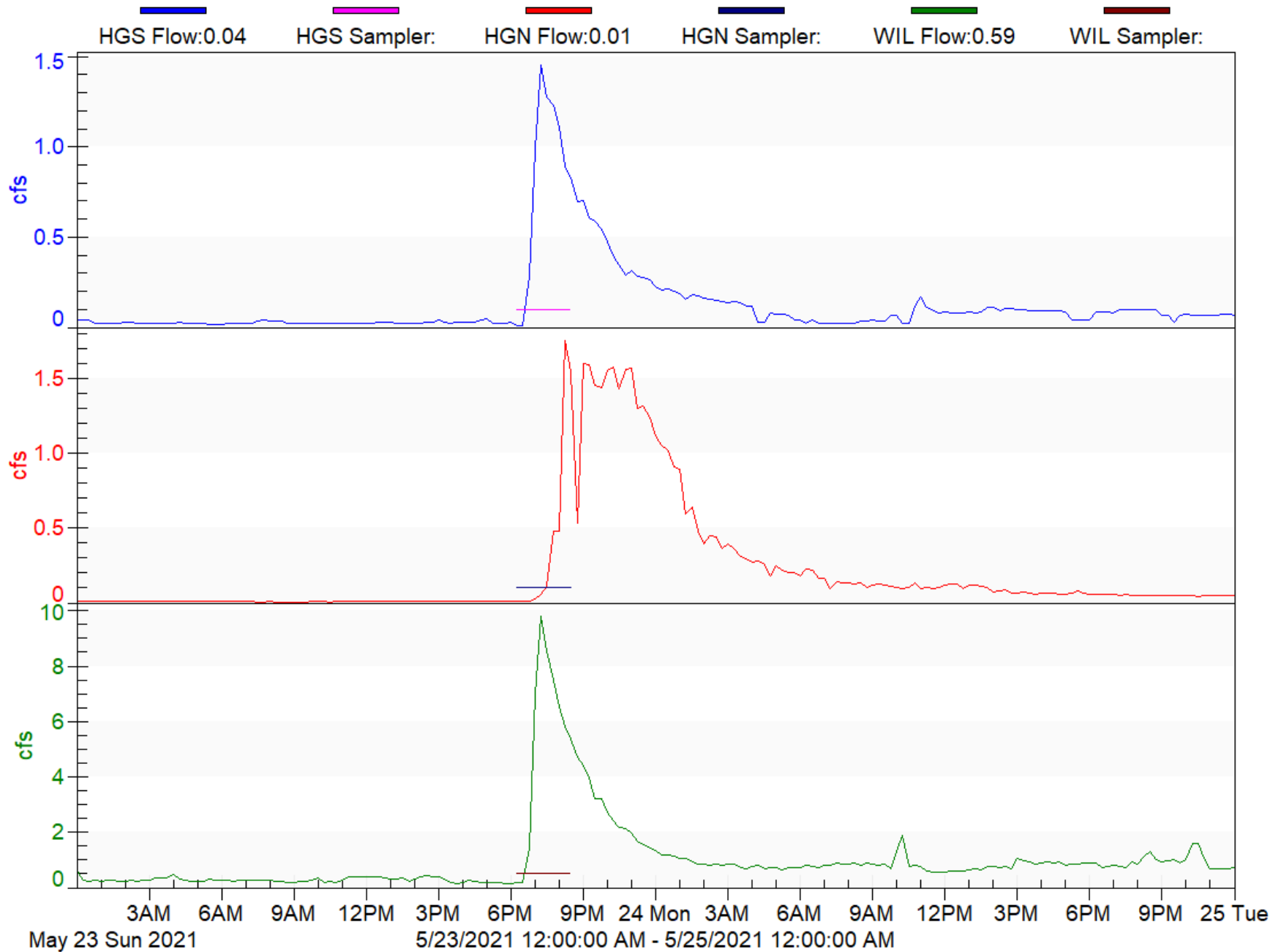


### Event 2 Flow Rates GWKS, GWKN, WLK

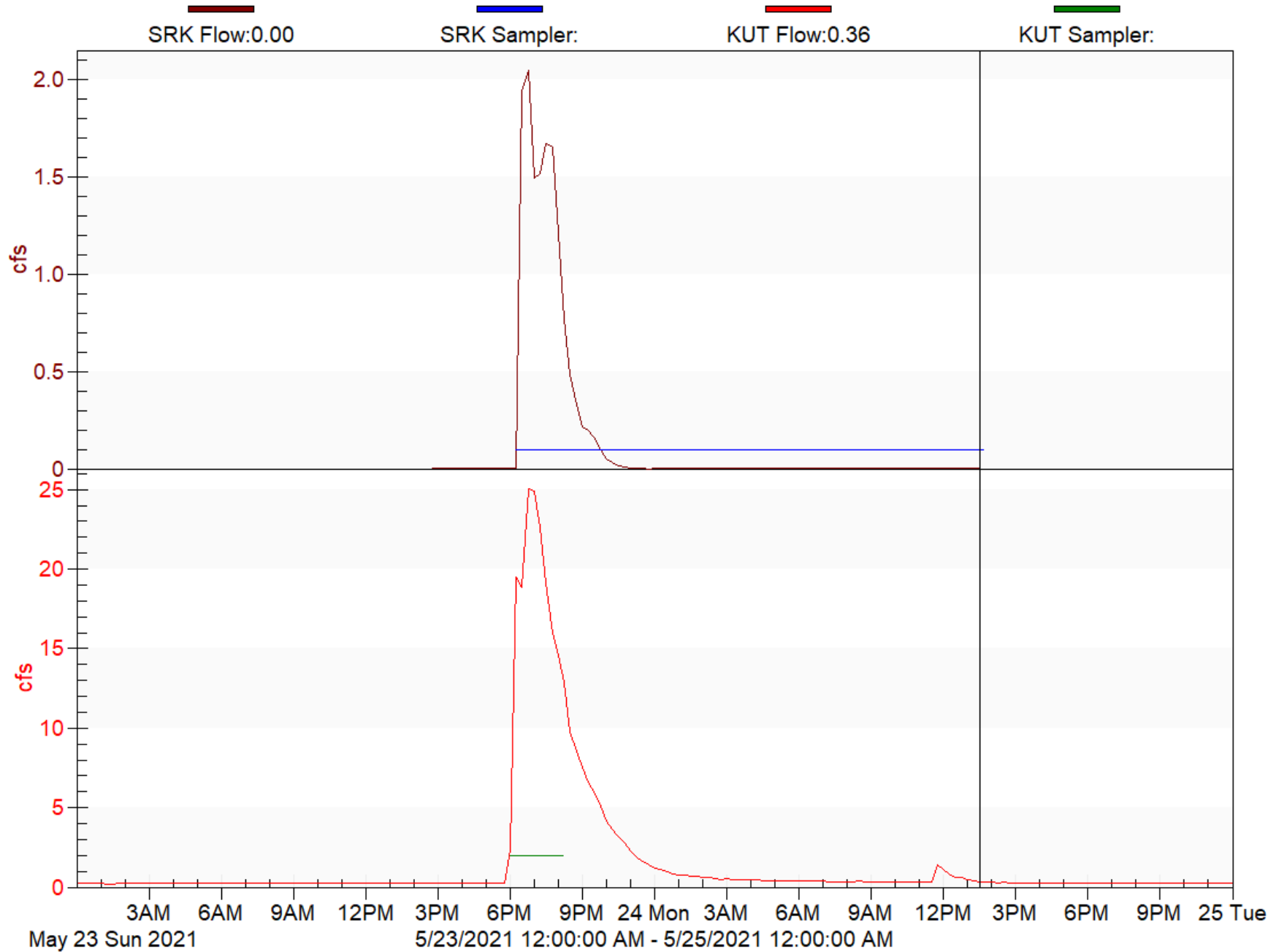


### Event 2 Flow Rates

HGS, HGN, WIL

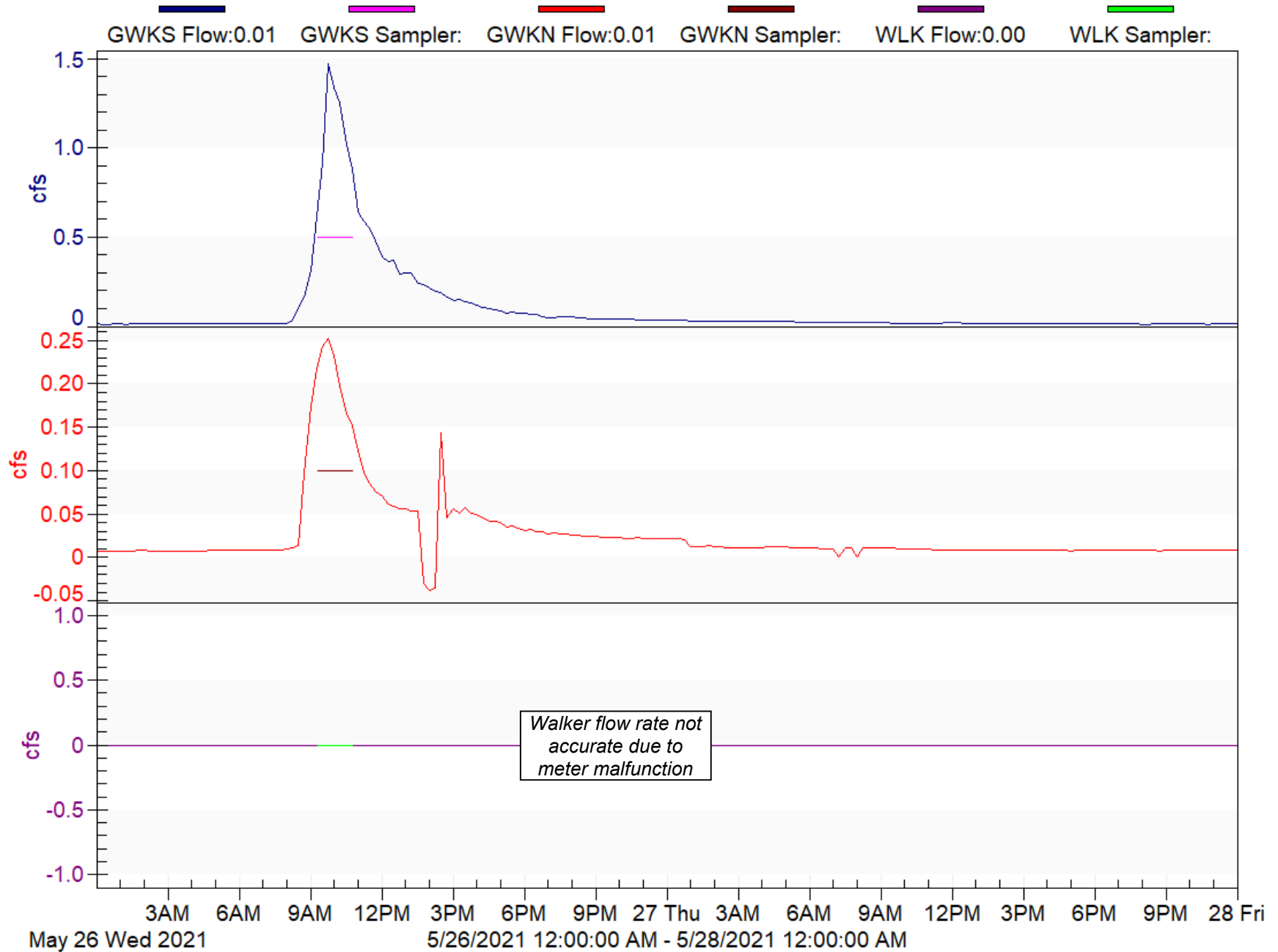


### Event 2 Flow Rates SRK, KUT



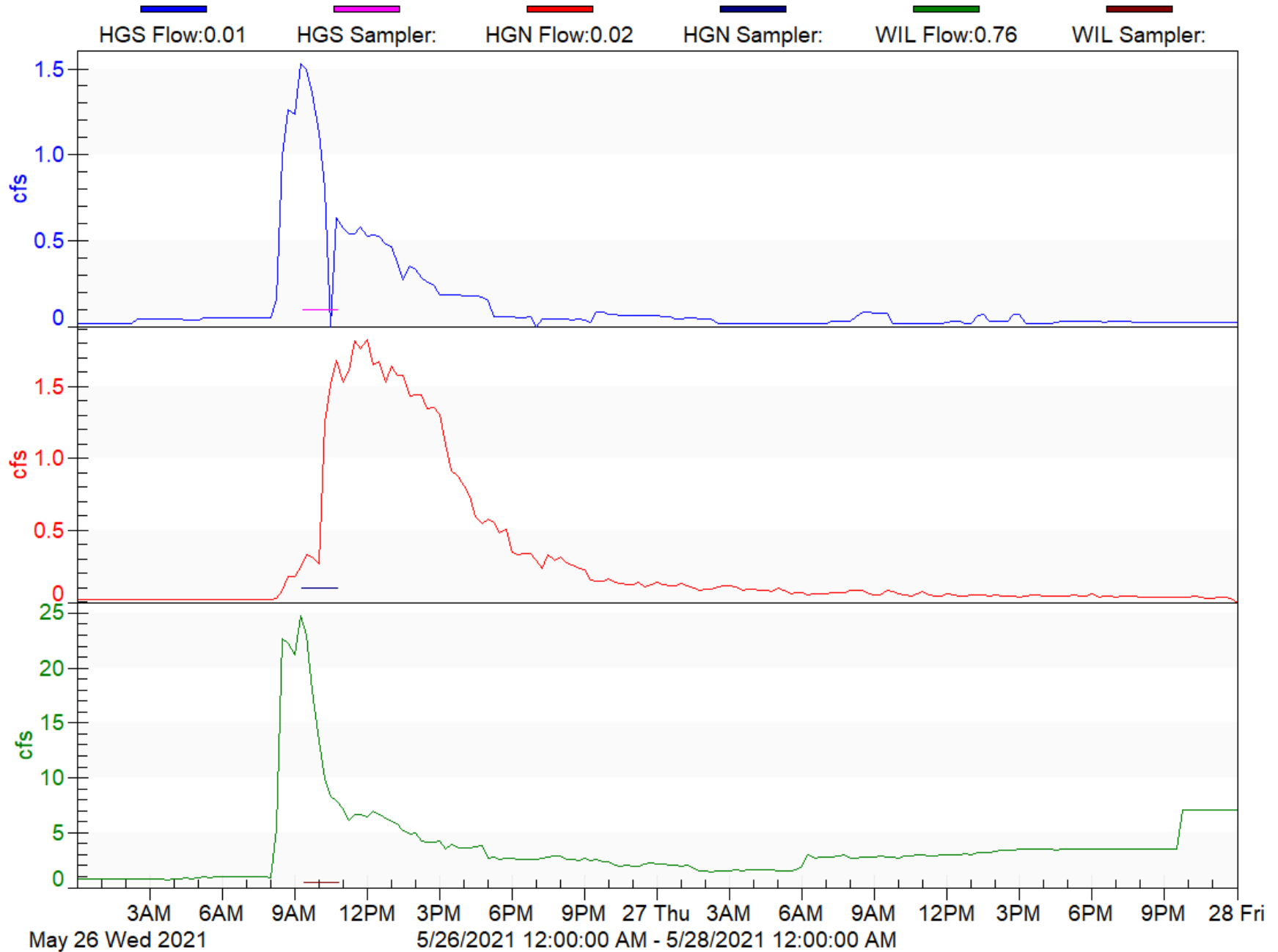


### Event 3 Flow Rates GWKS, GWKN, WLK

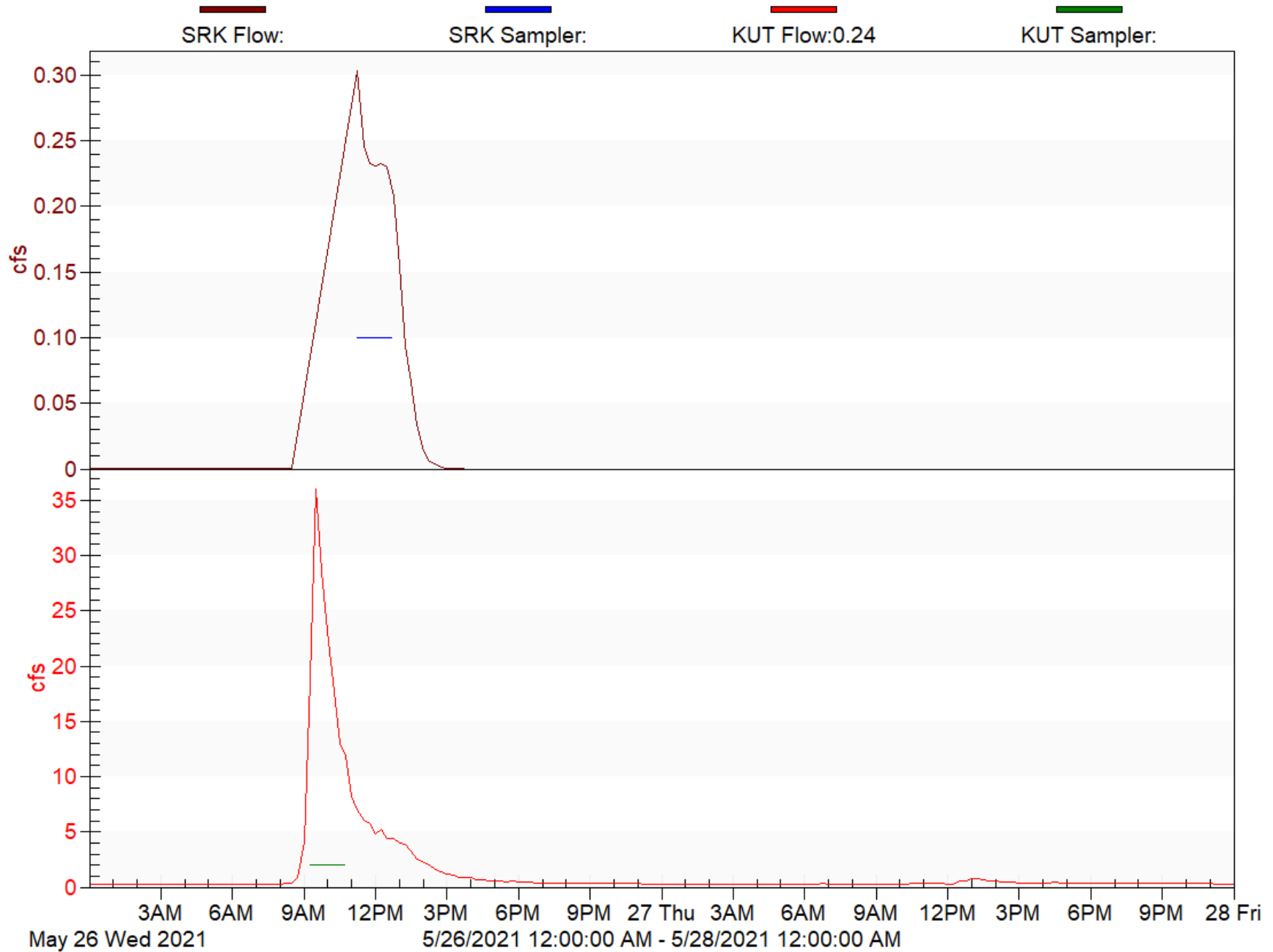


### Event 3 Flow Rates

HGS, HGN, WIL



### Event 3 Flow Rates SRK, KUT



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

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

**FROM:** Lynne Seymour, P.E., Chief Engineer

**SUBJECT:** GWK Parking Lot and Green Infrastructure Improvements Proposal for Approval

**DATE:** March 22, 2022

A project to repair the existing GWK Retention Treatment Facility parking lot was originally budgeted for and approved at the April 27, 2021 Drain Board meeting with the anticipated costs of \$50,000. This estimate only included parking lot improvements such as resurfacing and drainage. Since that time, the addition of several green infrastructure features and an alteration to the parking lot layout have been considered. These design elements could include permeable pavers, bioretention to capture and treat parking lot drainage, and the conversion of turf grass to natural grow zones. Hubbell, Roth & Clark, Inc. (HRC) has provided a proposal (\$26,200) for professional engineering and survey services that will develop concept plans and cost estimates for the inclusion of green infrastructure features in the parking lot project. Any additional work and construction that result from the concept plans will require further funding.

The GWK Retention Treatment Basin Permit includes requirements to develop stormwater standards that encourage infiltration of stormwater runoff to reduce the volume entering the Combined Sewer System. Numerous meetings were held with the communities in the drainage district to develop standards that promote the implementation of green infrastructure. The incorporation of green infrastructure on the GWK Retention Treatment Facility property will continue to promote its importance within the community and also demonstrate WRC's commitment to such practices.

**Board Action Requested:**

**Authorize HRC to commence work outlined in its December 20, 2021 proposal for a not-to-exceed cost of \$26,200.**

December 20, 2021

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

Attn: Ms. Lynne Seymour, P.E.

Re: GWK Parking Lot and Green Infrastructure Improvements  
Proposal for Professional Services

HRC Job No. 20211026

Dear Ms. Seymour,

Hubbell, Roth & Clark, Inc. (HRC) is pleased to submit this proposal for professional engineering and survey services for the development of concept plans and costs estimates for the above-mentioned project. Per our discussions and on-site meeting, it is our understanding that your office wishes to perform preliminary engineering related to replacing the asphalt parking lot near the administrative offices with more capacity and incorporate green infrastructure (GI) to the extent possible and to develop the scope to convert the "green belt" areas (not over the facility or near surface features) into grow zones for water quality enhancement.

This Phase of work includes survey, conceptual parking lot layouts, and water quality BMP layout and sizing for the parking lot, and the delineation, scope, and planting list for the grow zones. Estimates of cost are included for both. We will also meet with OCWRC staff to discuss the alternatives.

The scope of our services and costs are as follows:

#### Parking Lot Layout and Green Infrastructure

1. Survey – Update any existing as-builts for the facility with topographical data including any permanent structures, existing drainage, and related site features. We will generate a base map drawing. [20 hours - \$2,800]
2. Parking Lot Layouts – Develop several alternative layouts such as looping from the entrance, looping from the main concrete drive, simple expansion, etc. The parking lot shall be for staff vehicles and not any specialty/heavy loadings and could include pervious pavement or other infiltration systems. The layouts will include additional (8-10) and larger spaces and any City requirements. [24 hours - \$3,000]
3. Green Infrastructure (GI) Concepts – The parking lot layouts will include areas suitable for GI installation and overflow capacity. For the preferred parking lot concepts, we will develop GI improvements to capture, store, and treat the runoff generated from the parking lot and review volumes against climate adaptation guidance. [24 hours - \$3,000]
4. Exhibits – HRC will provide exhibits showing the layouts and GI suitable for presentation to administration, permitting agencies, the local municipality, etc. [16 hours - \$2,400]
5. Cost Estimates – We will prepare conceptual level cost estimates suitable for budgeting purposes. We will also comment on construction timing, permits, maintenance requirements, and other related issues that would impact overall costs. [12 hours - \$1,500]
6. Meetings – We are planning on one (1) virtual meeting to discuss our preliminary recommendations and one (1) in person meeting to present the final recommendations. [8 hours - \$1,200]

**Subtotal - Parking Lot Layout and Green Infrastructure = \$13,900**

**Delhi Township**  
2101 Aurelius Rd.  
Suite 2A  
Holt, MI 48842  
517-694-7760

**Detroit**  
535 Griswold St.  
Buhl Building, Ste 1650  
Detroit, MI 48226  
313-965-3330

**Grand Rapids**  
1925 Breton Road SE  
Suite 100  
Grand Rapids, MI 49506  
616-454-4286

**Howell**  
105 W. Grand River  
Howell, MI 48843  
517-552-9199

**Jackson**  
401 S. Mechanic St.  
Suite B  
Jackson, MI 49201  
517-292-1295

**Kalamazoo**  
834 King Highway  
Suite 107  
Kalamazoo, MI 49001  
269-665-2005

**Lansing**  
215 S. Washington SQ  
Suite D  
Lansing, MI 48933  
517-292-1488

### Grow Zone Scoping

1. Soil Sampling – We will visit the site and obtain six soil samples from various locations around the facility and have them analyzed for composition (soil nutrients and textural analysis) at MSU's soil lab or similar facility. [16 hours - \$2,000 + \$1,000 lab fees].
2. Plant Selection – HRC and/or our project partners will review OCWRC suggested seed mixes and refine for suitability with the soils on-site taking into consideration security, access, goose management, etc. and will compare locally available mixes to ensure availability. While native plant material that provides water quality benefits will be prioritized, we will also consider mixes with seasonal color, pollinator preference, and maintenance. We will also review local ordinances related to noxious weeds or vegetation management. [24 hours - \$3,000]
3. Exhibits – We will prepare an aerial drawing showing the areas recommended for planting, a plant list, and photo palette. [16 hours - \$2,400]
4. Cost Estimates – We will prepare conceptual level cost estimates suitable for budgeting purposes. We will also comment on construction timing, permits, maintenance, and other related issues that would impact overall costs. [12 hours - \$1,500]
5. Meetings - We are planning on one (1) virtual meeting to discuss our preliminary recommendations and one (1) in person meeting to present the final recommendations. [16 hours - \$2,400]

**Subtotal – Grow Zone Scoping = \$12,300**

It is assumed that OCWRC will provide the following:

- A. As-Built drawings
- B. Geotechnical reports specifically for the parking lot

This project will be overseen by James Burton, VP and managed by Nancy Kolinski, Senior Project Engineer. Albert Mickalich, Senior Associate, and Insite Design Studios will provide assistance along with HRC staff.

Based on the above tasks, hours, and costs, we recommend a total project budget of \$26,200. This will be billed in accordance with our current professional services agreement.

Thank you for this opportunity to submit this proposal. We look forward to talking with you more about this. HRC is ready to begin immediately and work with your office on cost-effectively completing this assignment.

If you have any questions or require additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.



James F. Burton, PE  
Vice President

pc: HRC; File

**OAKLAND COUNTY  
WATER RESOURCES COMMISSIONER**

**MEMORANDUM**

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

**FROM:** Lesli Maes

**SUBJECT:** Air Compressor Parts and Services Non-Purchasing Contract Approval

**DATE:** March 22, 2022

The GWK Retention Treatment Facility along with multiple other WRC facilities utilize Quincy brand air compressors and associated equipment for many critical operations. WRC staff performs much of the regular maintenance required for this equipment in house and require the ability to obtain the needed parts and accessories.

Brehob Corporation is currently lower Michigan's only authorized Quincy distributor. WRC submitted a scope of work to Brehob requesting pricing for repair service and purchasing of parts. Attached is the pricing Brehob provided along with requested references.

**Board Action Requested:**

**It is recommended that the Board approve entering a 3-year non-purchasing contract with Brehob Corporation for the not to exceed amount of \$150,000.**

**Oakland County Scope of Work  
Air Compressors & Dryers  
Parts & Services**

Oakland County Water Resource Commissioners office is requesting pricing for parts and services associated with air compressors and dryers located at WRC facilities that include, but are not limited to the following,

- GWK CSO Retention Treatment Facility, 1400 Ajax Rd., Madison Heights, MI 48071
- Acacia Park CSO Retention Treatment Facility, 31835 Evergreen Rd., Beverly Hills MI 48025
- Birmingham CSO Retention Treatment Facility, 700 Linden Rd, Birmingham MI 48009
- Bloomfield Village CSO Retention Treatment Facility, 1200 S. Cranbrook Rd, Birmingham MI 48009
- Eight Mile Pump Station, 22410 8 Mile Rd., Southfield MI 48076

**Scope**

Specifically, the CONTRACTOR/SUPPLIER must be able to provide parts and service for air compressors and dryers and be an authorized sales and services dealer for the Quincy and Hankinson brands of equipment.

The CONTRACTOR shall supply all parts, tools, and materials to complete all associated work during a service call.

Normal service and repairs hours are Monday through Friday, between the hours of 7:30 AM to 3:00 PM.

**Pricing**

- Regular Hourly Rate \$ 115.<sup>00</sup> /hour for repair and maintenance (M-F, 7:30am-3:00pm)
- Overtime Hourly Rate \$ 172.<sup>50</sup> /hour for repair and maintenance (M-F, 3:00pm-7:30am)
- Holiday/Weekend Rate \$ 230.<sup>00</sup> /hour for repair and maintenance
- Parts: Manufacturer List Pricing - 15 % discount. Cost of sundry supplies is to be included as overhead in quote per hour fees. Parts may be invoiced to the COUNTY as manufacturer list pricing minus a percent discount. Awarded vendor must provide a parts price list or be prepared to submit a copy of the invoice for part(s) as back-up documentation when billing the COUNTY.

Mobilization and demobilization fees are included in the above rates. Drive-time will not be paid.

Payment will be made within 60 days of invoice date.



**Oakland County Scope of Work  
Air Compressors & Dryers  
Parts & Services**

**Bid Evaluations**

The weighting of each proposal will be based on the following scoring matrix.

<b>EVALUATION SCORING CRITERIA</b>	<b>Section Weight</b>
Relevant Experience & Expertise	50%
Rates	40%
Local representative and ability to provide prompt service	10%

Interested vendors shall submit for evaluation the following:

- Three (3) references for work involving aforementioned services. References shall include the company or entity name, a contact name, contact phone number and/or email address.
- A written statement or other document/literature describing the services the company can provide in relation to those requested above.
- Complete pricing as requested in the PRICING section listed above.

**Evaluation scoring**

- 1 Proposal fails to meet minimum specification for this element and/or information is missing
- 2 Proposal meets specification with exception and/or information is unclear
- 3 Proposal meets minimum specification and required information is complete and understandable
- 4 Proposal somewhat exceeds specification and/or provides a somewhat enhanced solution/features/functionality
- 5 Proposal greatly exceeds specification and/or provides greatly enhanced solution/features/functionality
- 6 Proposal provides superior solution, technology, functionality, service or operational feature



## 4 Brehob Service References

Henry Ford Hospital  
2799 West Grand Blvd  
Detroit, MI 48202  
Mr. Dorian Winchester  
313-304-6621

Rigaku  
1900 Taylor Road  
Auburn Hills MI 48326  
Mr. Nathan Frank  
586-524-9162

SAS Global  
21601 Mullen  
Warren MI 48089  
Mr. Scott Adams  
586-510-3224

City of Warren WWTP  
32360 Warkop  
Warren MI 48093  
Gerry Dunne  
586-264-2530 Ext. 8130

**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:** Campbell Road Siphon Cleaning

**DATE:** March 22, 2022

Our office has reviewed the report provide by the U.S. Army Corps of Engineers and determined that the Campbell Road Siphon is in most need of cleaning. This siphon has excessive grease build up and debris which has reduced the flow through the pipes coming from this area.

Based on past experience with cleaning these siphons, and the work they are currently doing for WRC under our as-needed services, our office contacted Doetsch Environmental Services to obtain quotes for the siphon cleaning. As noted on the attached letter dated March 10, 2022, they have all the necessary equipment, material and manpower to complete the work at a cost of \$179,500. This price includes set up, traffic control, removal of sediment, hydraulic cleaning of the pipe, and a full Program Assessment Certification Program (PACP) inspection of the pipe and structure. This siphon was last cleaned in June 2012 by Doetsch at a cost of \$224,744, which is a difference of \$45,244.

As part of the I-696 construction, agreements were made between WRC and the Michigan Department of Transportation (MDOT) that states all maintenance and repairs on the siphons will be 100% reimbursed by MDOT. Our office has been in contact with MDOT to inform them of this project and future siphon cleaning projects. Upon completion of the cleaning and final payment to Doetsch, our office will provide MDOT with all the required documentation and reimbursement invoice.

The GWK Drainage District Sewage Disposal fund has the necessary funds available to participate in this project. An amount of \$200,000 has already been included within the Major Maintenance Expense Budget for FY2022 that was approved.

**Requested Action:**

**Award the Campbell Road Siphon Cleaning to Doestch Environmental Services in the amount of \$179,500 as outlined in the attached letter dated March 10, 2022, and authorize allocation of these funds from the GWKDD Sewage Disposal Fund.**

March 10, 2022

Jason Say  
Project Engineer  
One Public Works Drive, Bldg. 95 West  
Waterford, MI 48328-1907

RE: Designated siphon cleaning

Mr. Say,

Doetsch Environmental Services will provide necessary sewer cleaning equipment, confined space entry equipment, CCTV/sonar equipment, specialty removal equipment, mobilization, supervision and labor to clean and inspect the various double and triple barrel siphons as directed.

- All cleaning will utilize existing access points.
- Cleaning water will be recycled where possible since some hydrants are MDOT owned (black water will be used for cleaning).
- Remote equipment will be used due to load limitations at freeway.
- Sediment removed from the sewer will be stored in roll off containers, decanted and hauled for legal disposal at county facility.
- Hydraulic cleaning of the pipe will be utilize a high flow system in order to efficiently move debris in this large pipe.
- A step cleaning process will be used to eliminate blocking of the line with debris. The line will be cleaned to the upstream chamber. At which time a camera unit will be inserted into the line and will record cleanliness and provide a full PACP inspection of the pipe and structure.
- All debris will be removed from the pipe for disposal at WRC
- Offshift work may need to be incurred to pump down siphon barrels.

Scope:

- Major equipment set up at downstream structure.
- Traffic permit will utilize WRC blanket OCRC permit.
- Siphon barrels will be internally bypassed, cleaned and televised.
- Siphons to remain in service while cleaning.

Equipment to be utilized:

1. One Hyjector (high flow) jetting equipment
2. One remote reel truck
3. 2 Hydraulic power units with 6" and 8" submersible pumps
4. High pressure jet truck for floating grease mat removal
5. Vacuum truck
6. Roll off truck
7. Screening box for green waste filtration
8. Lifting frames for manipulating vertical vacuum line
9. Tubes and hoses
10. Supply trucks
11. Flat bed truck
12. Confined space entry equipment with blower
13. CCTV camera equipment
14. Traffic control devices

Cost using WRC blanket rates:

Equipment	per hour	# hours	Total
Hyjector	\$ 200.00	12	\$ 2,400.00
Vac truck	\$ 75.00	12	\$ 900.00
Water Blaster	\$ 80.00	1	\$ 80.00
Remote Reel	\$ 55.00	12	\$ 660.00
6" submersible	\$ 55.00	12	\$ 660.00
6" submersible	\$ 55.00	12	\$ 660.00
HPU	\$ 45.00	12	\$ 540.00
Support Vehicle	\$ 20.00	24	\$ 480.00
Project Manager	\$ 70.00	8	\$ 560.00
	\$ 80.00	4	\$ 320.00
Operator	\$ 65.00	8	\$ 520.00
	\$ 75.00	4	\$ 300.00
Confined Space Tech	\$ 70.00	8	\$ 560.00
	\$ 80.00	4	\$ 320.00
Confined Space Tech	\$ 70.00	8	\$ 560.00
	\$ 80.00	4	\$ 320.00
		Per Day =	\$ 9,840.00

Price per siphon:

Allen Branch Siphon: \$179,500.00

18 days @ 9,840.00 + 4 days setup @\$4,920 set up + \$2,380 for restoration + traffic control

Barry Drain Siphon: \$142,700.00

13 days @\$9,840.00 + 3 days setup @\$4,920

Campbell Siphon: \$179,500.00.00

16 days @ 9,840.00 +4 days setup @\$4,920+ \$2,380 for traffic control and fencing

Clarkson Siphon: \$156,800.00

14 days @ \$9,840.00 + 3 days set up @\$4,920 +\$2,000 restoration to park +\$2,280.00 additional tubing and maintenance for remote set up

Hubbard Branch Siphon: \$158,700.00 – require WRC assistance to gain golf course access.

14 days @ \$9,840 + 4 days set up @ \$4,920 + \$1,260.00 for repair to fence

Twelve Towns Middle Siphon: \$179,500.00 – includes equalizer line (18")

16 days @ 9,840.00 + 4 days set up @ \$4,920 + \$1,380 for restoration + \$1,000 additional tubing to set up in parking lot.

Twelve Towns South Siphon: \$162,000.00 – assume downstream chamber is on Otis, unsure due to construction in that area.

14 days @ \$9,840 +5 days set up @ \$4,920

Project duration: 4 months

Please call with any questions or concerns 810-499-9233

Thank you for the opportunity to be of service,



Joe Schotthoefer







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

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

**DATE:** March 22, 2022

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

<u>Payable To</u>	<u>Ref No.</u>	<u>For</u>	<u>Amount</u>
Dickinson Wright, PLLC	TBP	Invoice # 1663262 - Legal Services - 01/31/2022	\$ 1,745.44
Dickinson Wright, PLLC	TBP	Invoice # 1663267 - Legal Services - 01/31/2022	7,135.26
		<b>Total</b>	<b><u>\$ 8,880.70</u></b>

**Chapter 20 Drainage Board Meeting  
Regular Meeting – Tuesday, March 22, 2022**

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**11. Caddell Drain**

## **AGENDA**

### **DRAINAGE BOARD FOR THE CADDELL DRAIN**

March 22, 2022

1. Call meeting to order
2. Approve minutes of meeting of August 24, 2021
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$137,709
5. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$18,134.75
6. Other business
7. Approve pro rata payment to Drainage Board members
8. Adjourn

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

August 24, 2021

A meeting of the Drainage Board for the Caddell 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 August, 2021.

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 January 22, 2019 were presented for consideration. It was moved by Markham, supported by Nash, that the minutes be approved.

ADOPTED: Yeas - 2  
Nays - 0

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

A Memorandum from Lynne Seymour, P.E., Assistant Chief Engineer, dated August 24, 2021, requesting the Board approve the engineering services proposal from Hubbell, Roth & Clark, Inc. for invasive plant species control and authorize the Chairperson to execute the Six Rivers Land Conservancy Property Access Agreement (as attached) was presented. It was moved by Markham, supported by Nash, to approve the engineering services proposal from Hubbell, Roth & Clark, Inc. for invasive plant species control and authorize the Chairperson to execute the Six Rivers Land Conservancy Property Access Agreement as presented.

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.



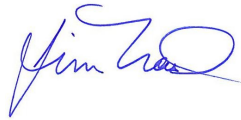
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Jim Nash, Chairperson

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 the Caddell Drain, Oakland County, Michigan, held on the 24<sup>th</sup> day of August, 2021, 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 Caddell Drain Drainage District.



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Jim Nash, Chairperson

Dated: August 24, 2021

**OAKLAND COUNTY WATER RESOURCES COMMISSIONER**  
**MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE**  
**Caddell Drain**

Assessment for current fund deficit and estimated maintenance expenses for fiscal years: 2022 through 2024

Date last assessment approved:	07/24/18	
Last Assessment:		\$288,000
Current Available Cash:		(\$81,309)

Expenditure History:	Fiscal Year	Amount
	2015	\$14,543
	2016	\$18,682
	2017	\$14,624
	2018	\$74,861
	2019	\$18,091
	2020	\$19,169
	2021	\$26,120

Estimated Expenditures:	Year	Amount
	2022	\$18,800
	2023	\$18,800
	2024	\$18,800
	<b>Total</b>	<b>\$56,400</b>

**Recommended Assessment:**

Current Cash Deficit	\$81,309
Total Anticipated Expenses 2022 - 2024	\$56,400

**TOTAL RECOMMENDED ASSESSMENT \$137,709**

Prepared by: Michael R. McMahon Date: 3/22/2022  
 Michael R. McMahon, P.E. - Chief Engineer

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Brian Coburn, P.E. - Manager

Note: Current Available Cash as of January 31, 2022, Fiscal Services Division Report.

**SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE  
OF THE CADDELL DRAIN**

<b>Public Corporation</b>	<b>*Percentage of Apportionment</b>	<b>Total Amount of Assessment</b>	<b>Payment #1</b>	<b>Payment #2</b>	<b>Payment #3</b>
City of Farmington	11.9000%	\$ 16,387.37	\$ 16,387.37	-	-
City of Farmington Hills	60.5000%	\$ 83,313.95	\$ 83,313.95	-	-
City of Novi	3.8000%	\$ 5,232.94	\$ 5,232.94	-	-
County of Oakland	5.6000%	\$ 7,711.70	\$ 7,711.70	-	-
State of Michigan	18.2000%	\$ 25,063.04	\$ 25,063.04	-	-
<b>Total</b>	<b>100.000%</b>	<b>\$ 137,709.00</b>	<b>\$ 137,709.00</b>	<b>\$ -</b>	<b>\$ -</b>

\*Apportionment based on Final Order of Apportionment dated 1/26/1983.

Assessment Payment Due Date(s): Payment #1 04/30/2022

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Caddell Drain for the fiscal years 2022- 2024 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

\_\_\_\_\_  
Jim Nash  
Chairman of the Drainage Board for the Caddell Drain

The foregoing Special Assessment Roll for the maintenance of the Caddell Drain was approved by the Drainage Board on \_\_\_\_\_.

\_\_\_\_\_  
Jim Nash  
Chairman of the Drainage Board for the Caddell Drain

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

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

*FOR SHAWN PHELPS*

**DATE:** March 22, 2022

**SUBJECT:** Request Approval for Payment of Invoice and Reimbursement of the Drain Revolving Fund

The following is a detail of Maintenance charges paid from the Drain Revolving Fund  
for period ending March 15, 2022.

Date	Ref No.	Paid To	For	Amount
9/1/2020	V # 1470109	Dickinson Wright	Inv # 1498029 - Legal Services - 07/31/20	\$ 1,424.00
9/25/2019	V # 1388007	Oakland Heights Development	Inv# 4243-000014638 - Sludge Removal	192.00
8/12/2019	V # 1375828	United Resources, LLC	Inv # 19-3057 - Contracted Services	434.10
			<b>Subtotal</b>	<b>\$ 2,050.10</b>
1/16/2020	V # 1414929	Fishbeck Thompson Carr & Huber, Inc	Inv # 388958 - Professional Services - 12/27/19 - Proj#1-2831	2,119.50
			<b>Subtotal Project # 1-2831</b>	<b>\$ 2,119.50</b>
12/10/2019	V # 1406447	Fishbeck Thompson Carr & Huber, Inc	Inv # 387530 - Professional Services - 11/01/19 - Proj#1-2831	33.90
8/9/2019	V # 1375811	Trojan Development Company Inc	Inv # Pay Request #3 - Contracted Services - Proj#1-2831	13,208.25
4/9/2019	V # 1344808	Fishbeck Thompson Carr & Huber, Inc	Inv # 32192 - Professional Services - 03/22/19 - Proj#1-2831	723.00
			<b>Subtotal Project # 1-2907</b>	<b>\$ 13,965.15</b>
			<b>Total</b>	<b>\$ 18,134.75</b>



**12. City of Pontiac**  
**Wastewater Treatment Facility**

## **AGENDA**

### **DRAINAGE BOARD FOR THE CITY OF PONTIAC WASTEWATER TREATMENT FACILITY**

March 22, 2022

1. Call meeting to order
2. Approve minutes of meeting of January 25, 2022
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$2,588,133
5. Other business
6. Approve pro rata payment to Drainage Board Members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD  
FOR THE PONTIAC WASTEWATER TREATMENT FACILITY**

January 25, 2022

A meeting of the Drainage Board for the Pontiac Wastewater Treatment 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 25<sup>th</sup> day 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

David Woodward, Chairperson of the Oakland County Board of Commissioners

ABSENT: None.

Minutes of the meeting held November 26, 2019 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.

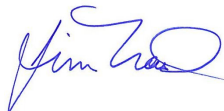
A memorandum from Razik Alsaigh, Civil Engineer III, dated January 25, 2022, requesting the Board to authorize the transfer of \$500,000 from the Drainage District to the Clinton River Water Resource Recovery Facility was presented. It was moved by Markham, supported by Woodward, to authorize the transfer of \$500,000 from the Drainage District to the Clinton River Water Resource Recovery Facility as presented.

ADOPTED: Yeas - 3  
Nays - 0

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

ADOPTED: Yeas - 3  
Nays - 0

There being no further business, the meeting was adjourned.



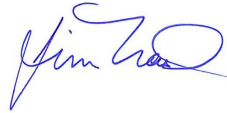
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Jim Nash, Chairperson

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 Pontiac Wastewater Treatment Facility, 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 the Pontiac Wastewater Treatment Facility Drainage District.



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Jim Nash, Chairperson

Dated: January 25, 2022

**OAKLAND COUNTY WATER RESOURCES COMMISSIONER  
OPERATIONS AND MAINTENANCE DIVISION  
DEBT ASSESSMENT RECOMMENDATION FOR THE  
Pontiac WWTF Drain**

Assessment for current fund balance and the following year of expenses: July 1, 2022 through June 30, 2023

	<u>Debt Assessment</u>
Last Assessment (\$):	\$ 2,867,870.00
Date last assessment approved:	3/23/21
Unreserved and Undesignated Fund Balance as of 1/31/2022	\$ (485,430.05)
Capital Improvement Reserves as of 1/31/2022	\$ 546,666.76
Major Maintenance Reserves as of 1/31/2022	\$ (16,875.61)
Emergency Maintenance as of 1/31/2022	\$ -
Funds Available as of February 1, 2022	<u>\$ 44,361.10</u>

**DEBT SERVICE REQUIREMENT for July 1, 2022 through June 30, 2023**

**Revenue Requirements**

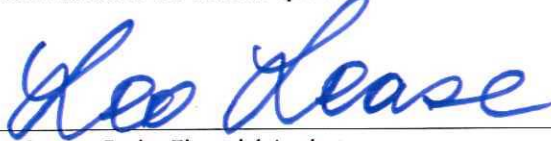
Debt Service	\$ 4,762,850.00
<b>Total Revenue Requirements</b>	<b>\$ 4,762,850.00</b>
Non-Rate Revenue	\$ -
<b>Rate Required Revenue</b>	<b>\$ 4,762,850.00</b>

**Recommended July 1, 2022 through June 30, 2023 assessment:**

Total Anticipated Expenses for July 1, 2022 - June 30, 2023	\$ 4,762,850.00
Revenue from COSDS Contract	\$ (2,174,717.00)
Total Anticipated Funds Needed	<u>\$ 2,588,133.00</u>

**TOTAL RECOMMENDED DEBT ASSESSMENT** **\$ 2,588,133.00**

Billings are to be at the end of the calendar quarters.

Prepared by:   
Leo Lease - Senior Financial Analyst

Date: 3/17/2022

Approved by: \_\_\_\_\_  
Steve Korth - Manager, Water Resources Commissioner

Date: \_\_\_\_\_

## SPECIAL ASSESSMENT ROLL FOR THE DEBT OF THE PONTIAC WWTF DRAIN

Public Corporation	*Percentage of Apportionment	Total Amount of Debt Assessment
City of Pontiac	100.00%	\$ 2,588,133.00
<b>Total</b>	<b>100.00000%</b>	<b>\$ 2,588,133.00</b>

\*Apportionment based on Final Order of Apportionment dated July 17, 2012.

**Assessment Due Date for the Debt:** To be paid as the debt invoices are invoiced to Oakland County.

I hereby certify that I have prepared the Special Assessment Roll for the Debt of the Pontiac WWTF Drain for the period July 1, 2022 through June 30, 2023 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

\_\_\_\_\_  
Jim Nash  
Chairman of the Drainage Board for the Pontiac WWTF Drain

The foregoing Special Assessment Roll for the maintenance of the Pontiac WWTF Drain was approved by the Drainage Board on \_\_\_\_\_.

\_\_\_\_\_  
Jim Nash  
Chairman of the Drainage Board for the Pontiac WWTF Drain

## **13. McCulloch Drain**

## **AGENDA**

### **DRAINAGE BOARD FOR THE MCCULLOCH DRAIN**

March 22, 2022

1. Call meeting to order
2. Approve minutes of meeting of February 28, 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 \$5,412.50
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn



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

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

*For Shawn Phelps*

**DATE:** March 22, 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	Fishbeck	Invoice # 409129 - Engineering Services - 02/18/22	\$ 189.00
	TBP	Fishbeck	Invoice # 405674 - Engineering Services - 10/29/21	5,223.50
			<b>Total</b>	<b>\$ 5,412.50</b>

## **14. Wilmont Drain**

## **AGENDA**

### **DRAINAGE BOARD FOR THE WILMONT DRAIN**

March 22, 2022

1. Call meeting to order
2. Approve minutes of meeting of February 28, 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 \$2,135.50
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

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

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

**DATE:** March 22, 2022

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

<u>Date</u>	<u>Ref No.</u>	<u>Paid To</u>		<u>Amount</u>
	TBP	Fishbeck	Invoice # 406653 - Engineering Services - 11/26/21 - Proj # 1-3632	\$ 1,013.50
	TBP	Fishbeck	Invoice # 409132 - Engineering Services - 02/18/22 - Proj # 1-3632	1,122.00
			Total	<u>\$ 2,135.50</u>