

NOTICE OF MEETINGS
DRAINAGE BOARD FOR THE FOLLOWING DRAINS:

1. Drainage District Policy
2. Evergreen-Farmington Sanitary Drain
3. Acacia Park CSO Drain
4. Birmingham CSO Drain
5. Bloomfield Village CSO Drain
6. Clinton River Water Resource Recovery Facility
7. George W. Kuhn Drain
8. Schmid Drain
9. Borden Drain
10. Greenacre Drain
11. Hamilton Relief Drain
12. Karas Drain
13. McIntyre Drain
14. Ramiro Drain

NOTICE IS HEREBY GIVEN THAT MEETINGS OF THE DRAINAGE BOARD FOR THE ABOVE-MENTIONED DRAINS WILL COMMENCE VIA **GOTOMEETING** AT **2:00 P.M.**, ON **TUESDAY, APRIL 27, 2021** TO CONDUCT NECESSARY AND APPROPRIATE BUSINESS OF THE DRAIN BOARDS. THOSE THAT WISH TO PARTICIPATE MAY FOLLOW THE INSTRUCTIONS ATTACHED TO THIS NOTICE.

THIS BOARD MEETING IS BEING CONDUCTED WHOLLY ELECTRONICALLY PURSUANT TO THE STATE OF EMERGENCY DECLARED BY WATERFORD TOWNSHIP, MICHIGAN AND IN ACCORDANCE WITH THE PROVISIONS OF THE OPEN MEETINGS ACT, PA 254 OF 2020, AND/OR AS OTHERWISE PROVIDED BY LAW DUE TO THE ONGOING COVID-19 PANDEMIC. ALL BOARD MEMBERS WILL BE PARTICIPATING ELECTRONICALLY.

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

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

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

April Chapter 20 Meeting

Tue, Apr 27, 2021 2:00 PM - 4:00 PM (EDT)

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1. Drainage District Policy

AGENDA

DRAINAGE BOARD FOR POLICY MATTERS

April 27, 2021

1. Call meeting to order
2. Approve Policy regarding Electronic Meetings Procedures
3. Approve minutes of meeting of January 26, 2021
4. Public Comments
5. Present Memorandum from Jim Wineka, P.E., Assistant Chief Engineer, requesting the Board adopt Oakland County's Engineering Design Standards for all Separate Storm System Chapter 20 Drains with implementation commencing on May 31, 2021
6. Other business
7. Approve pro rata payment to Drainage Board members
8. Adjourn

OAKLAND COUNTY WATER RESOURCE COMMISSIONER

POLICY REGARDING ELECTRONIC MEETING PROCEDURES FOR DRAIN CODE PUBLIC BODIES

Rules and procedures proposed by the Oakland County Water Resource Commissioner (“Drain Commissioner”), to protect health, safety, and welfare by developing proposed meeting procedures, for presentment to and approval by public bodies under the jurisdiction of the Drain Commissioner pursuant to the Michigan Drain Code, Act 40 of 1956, *et seq.* (“Drain Code”), in compliance with the Michigan Open Meetings Act, Act 267 of 1976, *et seq* (“OMA”).

THE OAKLAND COUNTY WATER RESOURCE COMMISSIONER DECLARES AS FOLLOWS:

Section I. Title. This policy may be cited as the Oakland County Water Resource Commissioner’s Policy Regarding Electronic Open Meetings Act Procedures for Drain Code Public Bodies (“Policy”).

Section II. Purpose. It is the intent of the Drain Commissioner to develop reasonable rules and procedures, in compliance with Sections 3 and 3a of the OMA, for presentment to and approval by the public bodies under the jurisdiction of the Drain Commissioner pursuant to the Drain Code (“Public Body”), for meetings of a Public Body to be held electronically by telephonic or video conferencing or in which there exists the electronic participation of a member or members of such bodies, and which may minimize the possibility of disruptions during such electronic meetings.

Section III. Presentment to Public Body for Approval

A. The proposed rules and procedures, as set forth in Section IV of this Policy (“Proposed Procedures”), shall be presented to each public body, convened after adoption of this Policy, that has not adopted rules and procedures required by Sections 3 and 3a of the OMA.

B. For a meeting of a public body scheduled on or after March 31, 2021, but before January 1, 2022, where the public body has not approved rules and procedures required by Sections 3 and 3a of the OMA and a declared statewide or local state of emergency is in effect within the jurisdiction of the public body, the Drain Commissioner may declare that the meeting will be held fully electronically, for both members of the public body and the public, and will ensure compliance with the OMA and requirements under this Policy in scheduling and hosting the fully electronic meetings. At the beginning of a fully electronic meeting of the public body as described in this section, after any necessary administrative positions on the public body have been assigned, the public body shall consider and adopt rules and procedures to comply with Sections 3 and 3a of the OMA. The Drain Commissioner shall present the Proposed Procedures as part of this consideration. If the public body fails to adopt said rules and procedures, the Drain Commissioner shall declare the meeting adjourned due to non-compliance with the OMA and no further action of the public body shall be taken.

Section IV. Proposed Procedures for Presentment to Public Body

ELECTRONIC MEETINGS PROCEDURES

Rules and procedures adopted by the Drainage Board for Policy Matters (“Public Body”) to protect health, safety, and welfare by establishing meeting procedures for the Public Body in compliance with the Michigan Open Meetings Act, Act 267 of 1976, *et seq* (“OMA”).

THE DRAINAGE BOARD FOR POLICY MATTERS DECLARES AS FOLLOWS:

A. Title. These rules and procedures may be cited as the Drainage Board for Policy Matters Electronic Open Meetings Act Procedures (“Procedures”).

B. Purpose. It is the policy of the Public Body to develop reasonable rules and procedures in compliance with Sections 3 and 3a of the OMA for fully electronic meetings of the Public Body, or in which there exists the electronic participation of a member or members of the Public Body, and which may minimize the possibility of disruptions during such electronic meetings.

C. Electronic Meetings Authorization.

1. Authorization to hold remote electronic meetings. Sections 3 and 3a of the OMA provide that a physical place is not required for meetings held, in whole or in part, electronically by telephonic or video conferencing, in the following circumstances:

- a. Before March 31, 2021, under any circumstance;
- b. On or after March 31, 2021 through December 31, 2021, only in circumstances in which there is an absence of a member(s) of the body due to:
 - i. Military duty;
 - ii. A medical condition; or
 - iii. A statewide or local state of emergency or state of disaster declared pursuant to law or charter by the Governor or a local official or local governing body that would risk the personal health or safety of members of the public or the public body if the meeting was held in person.
 - a. For the purpose of permitting an electronic meeting due to a local state of emergency or state of disaster, only to permit the electronic attendance of a member of the Public Body who resides in the affected area or to permit the electronic

meeting of a public body that usually holds its meetings in the affected area.

- c. After December 31, 2021, only in circumstances requiring accommodation of members absent due to military duty.

2. Physical Presence. At a meeting that accommodates members absent due to military duty or a medical condition, only those members absent due to military duty or a medical condition may participate electronically. Any other member must be physically present at the meeting.

3. Notice of Needed Accommodation. Members of the Public Body that must meet electronically on account of the member's military duty or medical condition, shall file a Notice of Needed Accommodation with the Drain Commissioner. Copies of the Notice of Needed Accommodation will be available through the Drain Commissioner's office and shall be submitted seventy-two (72) hours in advance of the first meeting the member will participate in electronically on account of their medical condition or military duty. Once filed, the Notice of Needed Accommodation will remain in effect until it is withdrawn by the member or until the public body can no longer accommodate the member's electronic participation under the OMA. It is a member's sole responsibility to withdraw a Notice of Needed Accommodation if they cease to have a medical condition or no longer have military duty obligations that enable their electronic participation. A Notice of Needed Accommodation filed with the Drain Commissioner only applies to this Public Body. A separate Notice of Needed Accommodation must be filed for any other public body overseen by the Drain Commissioner for which electronic attendance is sought.

4. Attendance at Meetings Held Electronically In-Part. Members of the Public Body or members of the public participating electronically in a meeting held pursuant to these Procedures that occurs in a physical space in part are to be considered present and in attendance at the meeting for all purposes.

5. Meetings Held Fully Electronically. When a statewide or local state of emergency has been declared within the jurisdiction of the Public Body, fully electronic meetings of the Public Body may be called at the discretion of the Drain Commissioner, unless otherwise decided by the Public Body at a legally held meeting, for both the members of the Public Body and the public. In the event that a fully electronic meeting is scheduled due to a statewide or local state of emergency, and the state of emergency is rescinded prior to the date of the meeting, the Drain Commissioner shall take such action as necessary to reschedule the meeting in compliance with the OMA.

Notwithstanding the provisions of this section, the Drain Commissioner or Public Body may decide, if legally permissible, to conduct an in-person meeting during a statewide or local state of emergency when deemed appropriate.

6. Participation Requirement. A meeting of the Public Body held electronically must be conducted in a manner that permits two-way communication so that members of the Public Body can hear and be heard by other members of the Public Body, and so that public participants can hear members of the Public Body and can be heard by members of the

Public Body and other participants during a public comment period. The Public Body may use technology to facilitate typed public comments that may be read to or shared with members of the Public Body and other participants.

D. Notice Requirements

1. Notice Requirements. Notices of any electronic meeting shall be posted, on behalf of the Public Body, on a portion of the Drain Commissioner's website fully accessible to the public at least 18 hours before the meeting. The public notice on the website must be included on either the homepage or on a separate webpage dedicated to public notices for non-regularly scheduled or electronic meetings that is accessible through a prominent and conspicuous link on the website's homepage that clearly describes its purpose for public notification of non-regularly scheduled or electronic public meetings. The public notice shall contain the following information:

- a. Why the Public Body is meeting electronically;
- b. Which member(s) of the Public Body will be participating in the meeting electronically;
- c. How members of the public may participate in the meeting electronically, including a telephone number, internet address, or both;
- d. How members of the public may contact members of the Public Body to provide input or ask questions on any business that will come before the Public Body at the meeting; and
- e. How persons with disabilities may participate in the meeting.

2. Agendas. If an agenda exists for an electronic meeting of the Public Body held pursuant to these Procedures, and the Drain Commissioner directly or indirectly maintains an official internet presence that includes monthly or more frequent updates of public meeting agendas or minutes, the Drain Commissioner, on behalf of the Public Body, shall make the agenda available to the general public through the Drain Commissioner's website at least two (2) hours before the electronic meeting begins.

E. Electronic Meeting Procedures. Consistent with the authority to establish reasonable rules under the OMA and the obligation of the Public Body to establish procedures for electronic meetings authorized by the OMA, such meetings shall be conducted in accordance with the following:

1. Use of Electronic Service. Public Body members and members of the public, when permitted by the Public Body, may participate in electronic meetings through software or interface using telephonic or video conferencing as facilitated by the Public Body.

2. Muting. During the meeting, each participant shall be permitted to mute or unmute themselves to the extent it does not create any distractions or disruptions of the meeting. To the extent necessary, a meeting host may mute or unmute participants to facilitate effective two-way communication and prevent disruption of the business of the meeting.

3. Public Comment. Members of the public shall speak only when called upon. The Public Body will designate an opportunity for each member of the public to be heard. Members of the public not speaking should remain muted unless and until called upon to provide comment and shall not otherwise cause disruptions. The Public Body shall make reasonable rules at a meeting to facilitate public comment in an orderly manner.

4. Public Announcement. For any member of the Public Body attending electronically, the member must make a public announcement at the outset of the meeting, to be included in the meeting minutes, that the member is in fact attending the meeting electronically. If the member is attending electronically for any other purpose other than for military duty, they shall identify their location by stating the city/township/village, county, and state from which they are attending.

5. Contacting Absent Members. Members of the public shall be informed of the electronic participation of a member of a Public Body through the notice required in Section D of these Procedures. The public may contact those absent members prior to the meeting to provide input on any business that will come before the public body by emailing or calling the Public Body with information provided in the notice. The Drain Commissioner shall then compile the input and transmit it to the absent member in advance of the meeting. For purposes of this section, an “absent member” is defined as any member authorized to participate in a meeting electronically.

6. Roll Call. During the electronic meeting, members of the Public Body will vote by roll call to avoid any questions about how each member of the Public Body votes. Each member of the Public Body must be asked how they vote, and their name and vote must be recorded in the meeting minutes.

7. Right to Record. The right of a person to participate in an electronic meeting includes the right to tape-record, to videotape, to broadcast live on radio, and to telecast live on television the proceedings of the meeting. The exercise of this right does not depend on the prior approval of the Public Body. However, individuals shall at a minimum provide written or oral notice to the Public Body prior to the start of an electronic meeting of their intent to tape-record, videotape, broadcast, or telecast the meeting in order to enable the Public Body to minimize the possibility of disrupting the meeting.

8. Registration. The Public Body may not require a person participating in an electronic meeting to register or otherwise provide his or her name or other information or otherwise to fulfill a condition precedent to attendance, other than mechanisms necessary to permit the person to participate in the public comment period of the meeting.

9. Breach of Peace. A person must be permitted to address the Public Body during an electronic meeting under these Procedures, provided that no specific rules by order of the Public Body are needed to address specific circumstances or technical issues that arise during the meeting. A person must not be excluded from an electronic meeting otherwise open to the public except for a breach of the peace committed during the meeting.

10. Closed Session. Members of the general public participating in an electronic meeting may be excluded from participation in an electronic closed session of the Public Body if the closed session is convened and held in compliance with the requirements of the OMA applicable to a closed session.

11. Discussion, Deliberation, and Voting. The Public Body's electronic meeting will effectuate as fully as possible, the purposes of the OMA, which include promoting government accountability and fostering openness in government to enhance responsible decision-making. Except as it relates to closed sessions, the full discussions and deliberations of the Public Body, not just the voting, must still be done with public access.

12. Additional Rules. The chair or host of an electronic meeting has the authority to ensure that the meeting is conducted in an orderly manner. This includes the ability to institute additional rules and procedures reasonably necessary to further the requirements of the OMA.

F. Review of Procedures. The Drain Commissioner shall review these Procedures if any substantive changes are made to the current provisions of the OMA, and present any proposed revisions to the Public Body for approval as necessary.

G. Validity and Severability. If any part of these Procedures are declared by any court of competent jurisdiction to be invalid, that declaration does not affect the validity of the remainder of the Procedures.

H. Repealer. While in effect, these Procedures supersede all policies (or parts of policies) of the Public Body that conflict with these Procedures.

I. Effective Date. These Procedures are effective immediately.

Adopted by the Drainage Board for Policy Matters.

Section V. Review of Policy. The Drain Commissioner shall review this Policy and the Proposed Procedures if any substantive changes are made to the current provisions of the OMA and present any proposed revisions of the Policy to the relevant public bodies.

Section VI. Validity and Severability. If any part of this Policy is declared by any court of competent jurisdiction to be invalid, that declaration does not affect the validity of the remainder of the Policy.

Section VII. Repealer. While in effect, this Policy supersedes all policies (or parts of policies) of the Drain Commissioner that conflict with this Policy.

Section VIII. Effective Date. This Policy is effective immediately.

Adopted by the Oakland County Water Resource Commissioner.

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

January 26, 2021

A meeting of the Drainage Board for Policy Matters was held at 2:00 p.m. on the 26th of January, 2021. The meeting was conducted electronically via GoToMeeting in accordance with PA 267 of 1976, as amended, and/or as otherwise provided by law.

The meeting was called to order by the Chairperson. The Board indicated where they were physically located at the time of the meeting as follows:

PRESENT: Jim Nash, Oakland County Water Resources Commissioner, participating from Farmington Hills, Michigan.

David Woodward, Chairperson of the Oakland County Board of Commissioners, participating from Royal Oak, Michigan.

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners, participating from Novi, Michigan.

Minutes of the meeting held October 27, 2020 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.

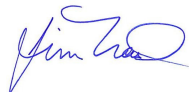
Jim Kelley and Sal Saputo (Meadowbrook Insurance Group) provided an update regarding property insurance options for the District; it was recommended that the Board renew insurance coverage with Chubb. Discussion ensued regarding policy and carrier options. It was moved by Markham, supported by Woodward, to bind coverage with Chubb and approve payment of the premium in the amount of \$369,928.

ADOPTED: Yeas - 3
Nays - 0

It was moved by Nash, supported by Woodward, 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 Policy Matters, Oakland County, Michigan, held on the 26th day of January, 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 Policy Matters.



Jim Nash, Chairperson

Dated: February 2 , 2021

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

TO: Jim Nash, Chairperson,
Drainage Board for Policy Matters

FROM: Jim Wineka, P.E., Assistant Chief Engineer

SUBJECT: Adoption of Oakland County's Stormwater Engineering Design Standards

DATE: April 27, 2021

The Oakland County Water Resources Commissioner's office has developed the attached Stormwater Engineering Design Standards in coordination with the Regional Stormwater Standards Coordination Committee consisting of stormwater experts from Oakland, Macomb, Wayne, and Livingston Counties. This office has facilitated more than forty committee meetings and continues to meet regularly to share progress, discuss issues and work towards consistent implementation of regional stormwater standards that protect our water resources.

Adoption of these standards is necessary to meet federal Municipal Separate Storm Sewer System (MS4) permit requirements as outlined in Oakland County's current permit for county owned or operated separate stormwater systems. The standards include new stormwater management requirements for Channel Protection Volume Control (Infiltration), Channel Protection Rate Control (Extended Detention), Water Quality Control, Operations and Maintenance, and Detention and Flood Control.

This office will continue to coordinate Oakland County's MS4 permit and anticipates adoption of the standards by the Parks and Recreation Commission, Facilities Management Department and the Board of Commissioners by June 30, 2021. Additionally, we anticipate that most communities in Oakland County will adopt these standards. On April 20, 2021 a countywide webinar was hosted to introduce the new standards and 150 stakeholders participated in the event.

The attached stormwater standards are recommended for adoption by all Separate Storm System Chapter 20 Drains with implementation commencing on May 31, 2021. These standards will continue to evolve as our stormwater expert team from our partner counties continue to meet and refine them as necessary. Any significant changes to these standards will be presented to the Board for adoption prior to implementation.

Recommended Action: Adoption of Oakland County's Engineering Design Standards for all Separate Storm System Chapter 20 Drains with implementation commencing on May 31, 2021.



OAKLAND COUNTY WATER RESOURCES COMMISSIONER

Stormwater Engineering Design Standards

Requirements, Rules, and Design Criteria for Stormwater Management

April 27, 2021

Section I - Oakland County Stormwater Standards

Part A: Standards

The Environmental Protection Agency (EPA) through the Michigan Department of Environment, Great Lakes, and Energy (EGLE) requires the County of Oakland and other regulated entities to comply with the National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Separate Storm Sewer System (MS4) permit requirements. The purpose of these standards is to address Post-Construction Stormwater Runoff Controls required under this permit.

These standards are a result of ongoing regional collaboration between Oakland, Wayne, Macomb and Livingston Counties with the following overall objectives:

1. Provide a comprehensive framework for managing stormwater that addresses surface water quality, channel and infrastructure protection, localized flood control and long-term operations and maintenance.
2. Incorporate design standards that control both the quantity and quality of stormwater runoff.
3. Require volume reducing Low Impact Development (LID) design measures, or Best Management Practices (BMPs), such as infiltration, preservation of natural areas, enhanced vegetation and reduced imperviousness to control runoff volume to the Maximum Extent Practicable (MEP).
4. Strengthen the protection of natural features.
5. Protect public health, safety and welfare.
6. Promote economic development using straightforward and uniform drainage standards for site development throughout Oakland County, as well as across Southeast Michigan.
7. Provide guidelines and additional resources for the selection of effective structural and vegetative stormwater BMPs for development sites.
8. Enhance the sustainability of stormwater management practices in Oakland County including performance, longevity, safety, maintenance, community acceptance, and environmental benefits.
9. Establish a framework to increase the likelihood of long-term operation and maintenance of the stormwater management practices.
10. Use the most currently published, relevant rainfall statistics.
11. Promote a consistent design process by using a set of simple equations to determine runoff rates, detention volumes, water quality treatment and infiltration requirements.

OCWRC Stormwater Rules address water quality, volume, and flood control. Section I includes an overview of the rules, including key equations used to demonstrate compliance with the standards.

Part B: Authority

The Oakland County Water Resources Commissioner's (OCWRC) office will apply these standards within its legal authority and jurisdiction as outlined in the following regulations:

1. The Subdivision Control Act, Act 288 of the Public Acts of Michigan of 1967, as amended.
2. The Michigan Drain Code, Public Act 40 of 1956, as amended.
3. The Mobile Home Commission Act, Act 96 of the Public Acts of Michigan of 1987, as amended.
4. Part 31, MS4 General Permit, Water Resources Protection, Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Oakland County's MS4 permit covers regulated county stormwater systems under the jurisdiction of the OCWRC office (direct discharges to County Drains), the Oakland County Parks and Recreation Commission and the County of Oakland. The Road Commission for Oakland County should be contacted for applicable standards within their stormwater jurisdiction.
5. EGLE Wastewater Discharge Permit, Rule 323.2161a, Post-Construction Requirements.

To promote consistent regional site development stormwater practices, communities and other entities responsible for the management of stormwater systems and MS4 permit compliance are encouraged to adopt these standards. Additionally, communities that operate combined sewer systems and are party to CSO permit compliance are also encouraged to adopt these standards. Local municipalities may elect more restrictive standards and when conflicting standards arise, the more stringent requirements govern. These standards establish minimum requirements for the design, construction and maintenance of stormwater systems for subdivisions, site condominiums, commercial, industrial and other development and redevelopment projects.

All construction activity within the OCWRC's stormwater permitting authority will be reviewed by the OCWRC's Permitting Department to determine if the activity is regulated. The OCWRC's office will use the following applicability criteria to assist in making this determination and to clarify which stormwater standards apply to the proposed construction activity.

These rules were developed in close coordination with Wayne, Macomb, and Livingston Counties, as well as the City of Detroit. This provides a generally consistent set of standards across Metro Detroit.

Part C: Applicability

These standards shall apply to development and redevelopment projects with construction activity greater than or equal to 1 acre, or part of a common plan of development or sale resulting in a development or redevelopment activity greater than or equal to 1 acre in size. Including without limitation, clearing, grading, excavating, construction and paving, that results in an earth change or disturbance in the existing cover or topography of land, including any external demolition, modification, or alteration of a site or the footprint of a building.

Common exemptions to these stormwater standards include the following:

1. Resurfacing of an asphalt, concrete, or similar surface (i.e., 'mill and fill') that does not expose the aggregate or subgrade or result in replacement of the onsite drainage system.
2. The practices of clearing, plowing, and tilling soil and harvesting for the purpose of crop production.
3. The project does not meet the development or redevelopment criteria in this standard.
4. The development or redevelopment project construction activity is less than 1.0 acre.
5. The development or redevelopment project is for one single family detached dwelling that is not part of a common plan of development.
6. The development or redevelopment project is for emergency maintenance and work performed to protect public health and safety.
7. The development or redevelopment project discharges solely to a RCOC stormwater system or right-of-way. Contact the RCOC permit staff at the Road Commission for Oakland County Official Website (rcocweb.org) for RCOC-specific stormwater requirements.
8. Other exemptions listed herein or approved by the OCWRC office.

These rules apply to development within OCWRC's stormwater jurisdiction & MS4 permit jurisdiction.

At the community's discretion, they can also adopt these rules to meet their stormwater & MS4 permit needs.

To protect all water resources under OCWRC stormwater jurisdiction, OCWRC requires applicable standards to be implemented for development and redevelopment projects located both inside and outside the Regulated MS4 Area.

Similarly, to protect all water resources under OCWRC stormwater jurisdiction, OCWRC requires applicable standards to be implemented for development and redevelopment projects regardless of whether they discharge stormwater to a MS4 or not.

The OCWRC office continues to collaborate with the George W. Kuhn Combined Sewer District communities in adopting Post-Construction stormwater standards to meet its Combined Sewer System NPDES permit requirements. Many of these communities have both separate and combined systems; the goal is to adopt similar Post-Construction standards that meet local and regional needs for both types of systems. Currently, the standards outlined herein are encouraged to be used in the GWK combined district; collaboration continues with a goal of adoption of these standards in both MS4 and combined sewer communities.

These standards supersede all previous versions and revisions, and updates will be available on the OCWRC's website (www.oakgov.com/water) including registration information to receive revisions and updates to these standards as they become available. These standards are intended to be a living document and updated as necessary to reflect ongoing changes to climate and regulatory conditions. Before submitting a site plan for stormwater permitting, check the OCWRC website above for the most recent version of the standards.

Part D: Channel Protection Volume Control

Channel Protection Volume Control (CPVC) is necessary to protect natural watercourses from increased erosion and sedimentation as a result of increased imperviousness and runoff volume as development occurs. CPVC also promotes groundwater recharge, stabilizes flow rates and baseflow in our natural watercourses, and addresses water quality control criteria (Total Suspended Solids).

CPVC shall be implemented to the Maximum Extent Practicable (MEP). The required Channel Protection Volume (V_{CP-R}) is the post-development site runoff volume from a 1.3-inch rainfall event.

The following CPVC implementation process is summarized in Appendix A (Channel Protection Flowchart).

1. Implement land use practices that limit the increase in runoff volume, such as LID practices including (but not limited to) a design emphasis on naturalized areas (i.e., meadow or wooded areas vs. turf grass), reduced impervious coverage, etc.
2. Calculate the required Channel Protection Volume using the following equation:

The Channel Protection Volume Control (CPVC) volume is intended to control runoff volume under post-development conditions for a 1.3-inch rainfall event

$$V_{CP-R} = 4,719 \times C \times A \quad (\text{Eq. 1})$$

where:

C is the post-development runoff coefficient

A is the contributing area in acres

V_{CP-R} is the required CPVC volume in cubic feet

3. Provide adequate infiltration and/or storage/reuse BMPs, to the MEP, to provide the calculated CPVC volume. This may include (but is not limited to) bioretention, rain gardens, bio-swales, pervious pavement, cisterns, green roofs, and infiltration trenches. For water reuse BMPs (i.e., cisterns), water demand (such as gray water or irrigation water) must be established and documented to show adequate drawdown times.
 - a. When the measured in-situ infiltration rate is above 0.5 in/hr., supplemental measures, such as subsoil amendments and/or a perforated underdrain system, are not required.
 - b. When the measured in-situ infiltration rate is between 0.24 in/hr. and 0.5 in/hr., soils are marginally suitable for infiltration BMPs, and supplemental measures are required. Supplemental measures may include subsoil amendment, or an underdrain located at the top of the storage bed layer to maximize infiltration.
 - c. When the measured in-situ infiltration rate is less than 0.24 in/hr., infiltration is deemed impractical, and the use of this BMP is therefore waived. When infiltration is waived, other volume-reducing LID practices must be implemented to the MEP.
 - d. Infiltration BMPs shall completely dewater in less than 72 hours, consisting of 24-hour dewatering for the surface volume, and 48-hour dewatering of the void space (soil storage) volume. Water storage/reuse BMPs shall also be designed to fully dewater within 72 hours.
4. Pretreatment is required for all BMPs to remove fine sediment, trash, and debris to preserve the longevity and function of the BMPs.
 - a. Common methods of BMP pretreatment include mechanical separators, sediment forebays, vegetated filter strips, vegetated swales, constructed filters, and curb cuts with sediment traps.
5. To incentivize and encourage stormwater infiltration on all sites, the provided Channel Protection Volume, (V_{CP-P}) can be subtracted from the required 100-year detention volume, V_{100D} (see equations in Part G below). Upon subtracting the provided Channel Protection Volume from the required 100-year detention volume, the resulting volume cannot be less than the Extended Detention Volume (V_{ED} , see Part E below).

Channel Protection Volume Control (infiltration) is required when the measured in-situ infiltration rate is ≥ 0.24 inches/hour and groundwater is at least 2 feet below the bottom layer of the proposed BMP

For underground infiltration BMPs that are not easily accessible for inspection and maintenance, such as underground detention system infiltration, this Channel Protection Volume is generally not credited and will be evaluated on a case-by-case basis by the OCWRC's office.

Infiltration BMPs are prohibited in areas containing contaminated soils/groundwater, wellhead protection areas, high seasonal groundwater (less than 2 feet from the bottom of the stone storage layer of the infiltration BMP to the seasonally high groundwater table) and in areas with hotspot activities and setback restrictions (foundations, property lines, drinking wells, septic fields, pavement, etc.) as defined in the standards. When any of the above adverse conditions are demonstrated, other volume-reducing LID practices must be implemented to the MEP.

Part E: Channel Protection Rate Control: Extended Detention

Channel Protection Rate Control (CPRC) is necessary to protect natural watercourses from increased erosion and sedimentation as a result of increased imperviousness and runoff rates as development occurs. Channel protection rate control is based on a 2-year / 24-hour storm. The CPRC shall be implemented to the MEP as outlined below.

1. Extended Detention is required for the site's post-development runoff volume from a 1.9-inch rainfall event. This Extended Detention Volume (V_{ED}) shall be dewatered in not less than 48 hours.
2. Calculate the required Extended Detention Volume using the following equation:

$$V_{ED} = 6,897 \times C \times A \quad (\text{Eq. 2})$$

where:

C is the post-development runoff coefficient

A is the contributing area in acres

V_{ED} is the required Extended Detention Volume in cubic feet

3. The Extended Detention requirement effectively maintains the 2-year pre-settlement peak flow rates, to the MEP, for new developments and reduces the existing 2-year peak flow rates for redevelopments.

Part F: Water Quality Control

Water Quality Control (WQC) focuses on limiting the concentration of Total Suspended Solids (TSS) in post-development runoff to either of the following water quality standards: 80 mg/L, or 80% TSS reduction. WQC shall be implemented to the MEP as outlined below.

WQC can be achieved one of several ways:

1. Infiltration (i.e., runoff volume-reducing) or water reuse BMPs that achieve the required Channel Protection Volume (V_{CP-R} , see Part D) meet the TSS requirements for only areas tributary to an infiltration BMP. If any areas on a site plan bypass infiltration BMPs, those areas must receive alternative TSS treatment (see below for other options).
2. Mechanical separators designed for the required TSS removal at a peak flow rate (Q_{WQ}) generated by a 1-year peak flow as calculated below:

$$Q_{WQ} = C \times I_1 \times A \quad (\text{Eq. 3})$$

where:

C is the post-development runoff coefficient

$$I_1 = \frac{30.2}{(T_c + 9.17)^{0.81}} \quad (\text{Eq. 4})$$

T_c = Time of Concentration (minutes)

maximum peak intensity (I_{1-Max}) = 2.0 inches/hour for smaller sites with time of concentration equal to or less than 15 minutes

minimum peak intensity (I_{1-Min}) = 1.0 inches/hour for larger sites with a time of concentration equal to or greater than 1 hour

A is the contributing area in acres

Q_{WQ} is the peak flow rate for mechanical separator design in cfs

3. Sediment forebay(s), when combined with downstream Extended Detention. Forebays shall be designed with a volume equal to 15% of the Water Quality Volume ($0.15 \times V_{WQ}$) and capture heavy sediment at inlet pipe locations where access is provided to accommodate sediment removal equipment. The required sediment forebay volume, V_F , is calculated below:

$$V_F = 0.15V_{WQ} = 545 \times C \times A \quad (\text{Eq. 5})$$

where:

C is the post-development runoff coefficient

A is the contributing area in acres

V_{WQ} is the required Water Quality volume in cubic feet

4. The following treatment trains are effective at meeting the OCWRC water quality requirements:
 - a. Bioretention BMPs (infiltration), discharging to a conventional detention basin* (wet or dry)
 - b. Mechanical separator(s), discharging to a conventional detention basin* (wet or dry)
 - c. Sediment forebay(s), discharging to a conventional detention basin* (wet or dry)

* Conventional detention basins include hydraulic controls for both V_{ED} and V_{100D}

Part G: Detention & Flood Control

Detention and flood control is a critical component in stormwater design as it helps to prevent excess peak flows and reduces the likelihood of flooding downstream of a development site. The regional collaboration has resulted in the following Detention and Flood Control standards.

Detention and Flood Control shall be implemented to manage the **100-year peak runoff rate** for developed sites as outlined below. The allowable 100-year post-development peak flow rate (Q_{100P}) shall be approved by the OCWRC office on a case-by-case basis and will be calculated one of two ways:

1. Using the Variable Release Rate (see equations below)
2. County-determined peak flow rate based on a documented County Drain flow capacity or other known downstream capacity limitations (flow rate provided in cfs/acre)

OCWRC (or any local review authority) reserves the right to set a specific discharge rate that is below the Variable Release Rate where outlet capacity is restricted

Prior to commencing with site plan design, contact the OCWRC Permitting Department to confirm which of the above methods is more restrictive and will apply to your site. The chosen method to determine the 100-year post-development peak flow rate can have a significant impact on required detention pond volume.

The Variable Release Rate and corresponding post-development peak flow rate are calculated as follows:

$$Q_{VRR} = 1.1055 - 0.206 \ln(A) \quad (\text{Eq. 6})$$

where:

Q_{VRR} is the allowable release rate in cfs/acre

A is the contributing area in acres

The variable release rate (cfs/acre) is capped at 1.0 cfs/acre for developments 2 acres or less. For all developments equal to or greater than 100 acres, the variable release rate is 0.15 cfs/acre.

$$Q_{100P} = Q_{VRR} \times A \quad (\text{Eq. 7})$$

where:

Q_{100P} is the allowable 100-year post-development peak flow rate in cfs

A is the contributing area in acres

If downstream capacity is insufficient for the proposed development, the developer can make improvements that may include construction of additional off-site conveyance capacity, improvements to the existing drain, acquisition of easements from downstream property owners, etc. The developer is responsible for securing all necessary easement(s) from downstream property owners and is responsible for all improvement costs.

All stormwater discharges from the proposed development site shall outlet within the watershed where flows originated, unless approval is obtained from the OCWRC's office. Offsite runoff shall bypass the proposed site's stormwater system. If this cannot be achieved, detailed hydrologic and hydraulic calculations shall be provided to the OCWRC office to demonstrate no adverse impacts downstream for the 10-year and 100-year storms.

When calculating the required detention volume, all on-site contributing drainage areas shall be used in the calculation. Volume stored within the forebay and extended detention area may be applied towards the required detention volume. Please refer to Appendix B for typical detention basin profiles and stormwater design calculations.

The required 100-year detention volume (V_{100D}) is calculated as follows:

1. Calculate the total 100-year runoff volume (V_{100R}) under post-development conditions:

$$V_{100R} = 18,985 \times C \times A \quad (\text{Eq. 8})$$

where:

C is the post-development runoff coefficient

A is the contributing area in acres

V_{100R} is the post-development 100-year runoff volume in cubic feet

2. Calculate the 100-year peak inflow rate, Q_{100IN} , into the detention basin; this is the post-development peak instantaneous flow prior to (upstream of) the detention basin:

$$Q_{100IN} = C \times I_{100} \times A \quad (\text{Eq. 9})$$

$$I_{100} = \frac{83.3}{(T_c + 9.17)^{0.81}} \quad (\text{Eq. 10})$$

where:

Q_{100IN} is the 100-year post-development peak inflow rate in cfs

C is the post-development runoff coefficient

A is the contributing area in acres

I_{100} is the 100-year peak rainfall intensity in inches/hour

T_c is the Time of Concentration for the development site in minutes

3. Calculate the Storage Curve Factor for the 100-year detention volume (R):

$$R = [0.206 - 0.15 \ln \left(\frac{Q_{100P}}{Q_{100IN}} \right)] \quad (\text{Eq. 11})$$

where:

Q_{100IN} is the 100-year post-development peak inflow rate in cfs

Q_{100P} is the 100-year post-development peak flow rate in cfs

R is the Storage Curve Factor (dimensionless)

4. Finally, calculate the 100-year detention basin size, identifying any credits to the detention basin volume to reflect the provided Channel Protection Volume (V_{CP-P})

$$V_{100D} = (V_{100R} \times R) - V_{CP-P} \quad (\text{Eq. 12})$$

where:

V_{100D} is the required 100-yr detention volume in cubic feet

V_{100R} is the 100-year runoff volume in cubic feet

R is the Storage Curve Factor (dimensionless)

V_{CP-P} is the **provided** CVPC volume in cubic feet

KEY RULE: $V_{100D} \geq V_{ED}$

When taking credit for infiltration volume, the resulting detention volume can never be less than the Extended Detention Volume (V_{ED})

Check to verify the adjusted 100-year detention basin volume is equal to or greater than the Extended Detention Volume (V_{ED}). Under no circumstances shall the adjusted detention basin volume be less than V_{ED} .

Part H: Operations and Maintenance

Long-term Operations and Maintenance (O&M) Plans are required for County Stormwater Systems and Non-County Stormwater Systems and are summarized below. To facilitate routine inspections, all O&M requirements and documents listed below shall be incorporated into the plan set on dedicated O&M-specific plan sheets. When O&M responsibilities or requirements are modified or updated, the respective O&M Plan sheet(s) shall be updated accordingly.

County Stormwater Systems

The following MS4 Permit O&M requirements apply to all regulated County Stormwater Systems owned, operated and maintained by the OCWRC's office, the Oakland County Parks and Recreation Commission and the County of Oakland, hereafter referred to as County Departments:

1. Prior to the start of any development or redevelopment activity meeting the criteria defined in Part C: Applicability, the County Department shall obtain a Drain Permit from the OCWRC's Permitting Department. Coordination with the OCWRC's Permitting Department is recommended at the conceptual stage of development projects to ensure that permit requirements are clearly identified early in the planning process.
2. To ensure consistent perpetual O&M of the site's stormwater system and to enhance water quality protection, prior to Drain Permit issuance, the OCWRC's Permitting Department shall review and approve the County Department's site-specific Stormwater Management O&M Plan with the following requirements:
 - a. Purpose of the plan.
 - b. Drainage area description and details.
 - c. Description of the stormwater system and its individual components.
 - d. Specific short-term, intermediate and long-term maintenance tasks.
 - e. Inspection and maintenance tasks, frequencies and responsibilities.
 - f. Employee and contractor training requirements and responsibilities.
 - g. Approved construction drawings including stormwater calculations, details, elevations and a location map, etc.
 - h. Approved O&M Plan sheet(s) to facilitate routine O&M inspections.
 - i. County Departments shall submit an Annual Stormwater System O&M Summary, for their stormwater systems, to the OCWRC's Environmental Department for County MS4 permit reporting. Individual County Departments are responsible for completing all O&M tasks and for maintaining detailed O&M tracking records for their stormwater systems.

Maintaining stormwater systems is critical for ensuring they meet ongoing water quality and flood control needs. Individual County Departments are responsible for completing all (perpetual) O&M tasks and for maintaining detailed O&M tracking records for their stormwater systems.

Non-County Stormwater Systems

The following MS4 Permit O&M requirements apply to all regulated Non-County Stormwater Systems owned, operated and maintained by others, which directly connect to a County Stormwater System:

1. Prior to the start of any development activity meeting the site applicability criteria defined in Part C: Applicability, a Drain Permit shall be obtained from the OCWRC's Permitting Department. Coordination with the OCWRC's Permitting Department is recommended at the conceptual stage of development projects to ensure that permit requirements are clearly identified early in the planning process.
2. To ensure consistent perpetual O&M of the site's stormwater system and to enhance water quality protection, prior to Drain Permit issuance, the OCWRC's Permitting Department shall review and approve the site-specific Stormwater Management O&M Agreement between the community and property owner. A fully executed Stormwater Management O&M Agreement is required prior to issuance of the Drain Permit. This agreement shall consist of the following requirements which will be incorporated into the O&M Plan sheet(s):
 - a. Legal Description: A legal description and reduced copy map to identify the land parcel(s) affected by this Agreement. This map shall be prepared for each site and must include a reference to a Subdivision Plat, parcel survey, or Condominium Master Deed, and a map to illustrate the affected parcel(s).
 - b. Stormwater System Description and Map: A location map of the entire stormwater system. This map must be prepared for each site and the scale of the map shall show necessary detail.
 - c. Stormwater O&M Plan Sheet(s): The site-specific Stormwater O&M Plan shall include the following requirements:
 - Description of the stormwater system, drainage area, and its individual components.
 - Specific short-term, intermediate and long-term maintenance tasks.
 - Inspection and maintenance tasks, frequencies and responsibilities (matrix/table).
 - Employee and contractor O&M training requirements, certifications, and responsibilities.
 - BMP Details
 - Property owners are responsible for completing all O&M tasks and maintaining O&M records for their stormwater systems. Property Owners shall submit an Annual Stormwater System O&M Summary to OCWRC's Permitting Department for tracking only. The community is responsible for enforcement of the O&M requirements as outlined in the Stormwater Management O&M Agreement and their MS4 permit.

The community is responsible for enforcement of the O&M requirements as outlined in the Stormwater Management O&M Agreement and their MS4 permit.

- d. Memorandum of Stormwater Management Operations and Maintenance Agreement: This O&M Memorandum acknowledges a perpetual requirement of stormwater system operations and maintenance, which is recorded with the Register of Deeds to put any future property owners, or interest holders, on notice of the Stormwater System and the Stormwater O&M Plan. This O&M Memorandum references the required Stormwater Management O&M Agreement, which resides with the local community to ensure consistency and periodic updates as necessary. A copy of the recorded document shall be submitted to OCWRC prior to closure of the Drain Permit.

Appendix C – Stormwater Management O&M Agreement is an approved “example” agreement, however, the OCWRC office recognizes that community-specific O&M agreements, ordinances and programs may also be proposed and submitted to OCWRC for approval. When developing alternative O&M programs for consideration, the community should reference EGLE’s Post-Construction Stormwater Runoff Controls Program Compliance Assistance Document (available on EGLE’s website) and their MS4 permit.

Part I: Stormwater Tracking & Mapping

Collecting data on site runoff characteristics is critical for OCWRC and the local review jurisdiction (if applicable) to meet ongoing EGLE permit requirements. This will be accomplished with a **Land Use Summary Table**, which must be included on the O&M Plan Sheet of each submitted site plan (see table below). Additionally, GIS-based site data (in the form of a shapefile) will be required as a condition of site plan approval. GIS data will be limited to key stormwater components that will require future inspection and maintenance.

Land Use Summary

must be included on the O&M Plan Sheet for all site plans

Pervious Area Land Use Data	Characteristic	Existing Conditions	Proposed Conditions
	Total Development Area (ac)		
	Impervious Area (ac)		
	Total Pervious Area (ac)		
	Pervious Area Breakdown by Cover Type		
	Meadow/fallow/natural areas (non-cultivated)	x.xx acres	x.xx acres
	Predominant NRCS Soil Type (A, B, C, or D)		
	Improved areas (turf grass, landscape, row crops)	x.xx acres	x.xx acres
	Predominant NRCS Soil Type (A, B, C, or D)		
	Wooded Areas	x.xx acres	x.xx acres
	Predominant NRCS Soil Type (A, B, C, or D)		
CPVC Volume Calculated (cubic feet)			
CPVC Volume Provided (cubic feet)			
CPRC Volume Provided (cubic feet)			
The Professional Engineer who signs and seals this site plan certifies that the values in this table reflect the OCWRC stormwater calculations required for this development and that geotechnical investigations were performed that provide conclusive documentation that demonstrates whether infiltration (i.e., CPVC Volume Control) is practicable.			

Notes:

- The Professional Engineer Certification Statement (see above) must be included with the Land Use Summary Table.
- Areas to be shown to the nearest 0.01 acre
- 'Predominant' soil type shall be the soil type with the largest percentage coverage over the designated land use (e.g., 70% Soil Type B and 30% Soil Type C shall be listed in the table as "Soil Type B")
- USDA soil types cannot be used to determine site suitability for infiltration and meeting the CPVC volume standard; direct infiltration testing will be required to determine site suitability for infiltration
- If CPVC requirement is waived, enter ZERO for the 'CPVC Volume Provided'
- When more than one soil type exists in one area, assign the predominant soil type for that area
- Use NRCS/USDA Online Soil Survey Map to determine soil type (A, B, C, or D):

<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>

In addition to the Land Use Summary table, the applicant must include the following stormwater system information in the submittal:

1. Project name
2. Project location
3. City / Township / Village name
4. Applicant name and contact information
5. Engineer and owner names, including contact information
6. Description of work and other relevant information
7. **Stormwater Design Narrative** (separate document), consisting of the following minimum components:
 - a. Summary of the proposed stormwater management system
 - b. Geotechnical investigations (e.g., soil borings, infiltration tests, and/or an Environmental Site Assessment)
 - i. *NOTE: the stormwater review cannot be approved without the submittal of in-situ soil characteristics and/or evidence of existing soil contamination; this information is necessary to determine whether the Channel Protection Volume Control standard will be required.*
 - c. All stormwater calculations, including a list of all assumptions, site characteristics, and other information to support the calculations.
 - d. If mechanical separators are to be used, include all vendor certifications for unit sizing and TSS removal efficiencies.
 - e. Figures/schematics of the stormwater management system, including clear references to existing wetlands, floodplains, woodlands or other protected natural features.
 - f. Outlet hydraulic calculations, including (if requested by the OCWRC) calculations and certifications for the hydraulic capacity of the receiving system.
 - g. Operations & Maintenance (O&M) Plan for all proposed stormwater components (collection system, water quality treatment, infiltration, extended detention, and flood control) shall be included on the O&M Plan sheet(s).
8. Construction plans developed in accordance with OCWRC requirements
9. Executed Stormwater Management O&M Agreement
10. Recorded Memorandum of Stormwater Management O&M Agreement

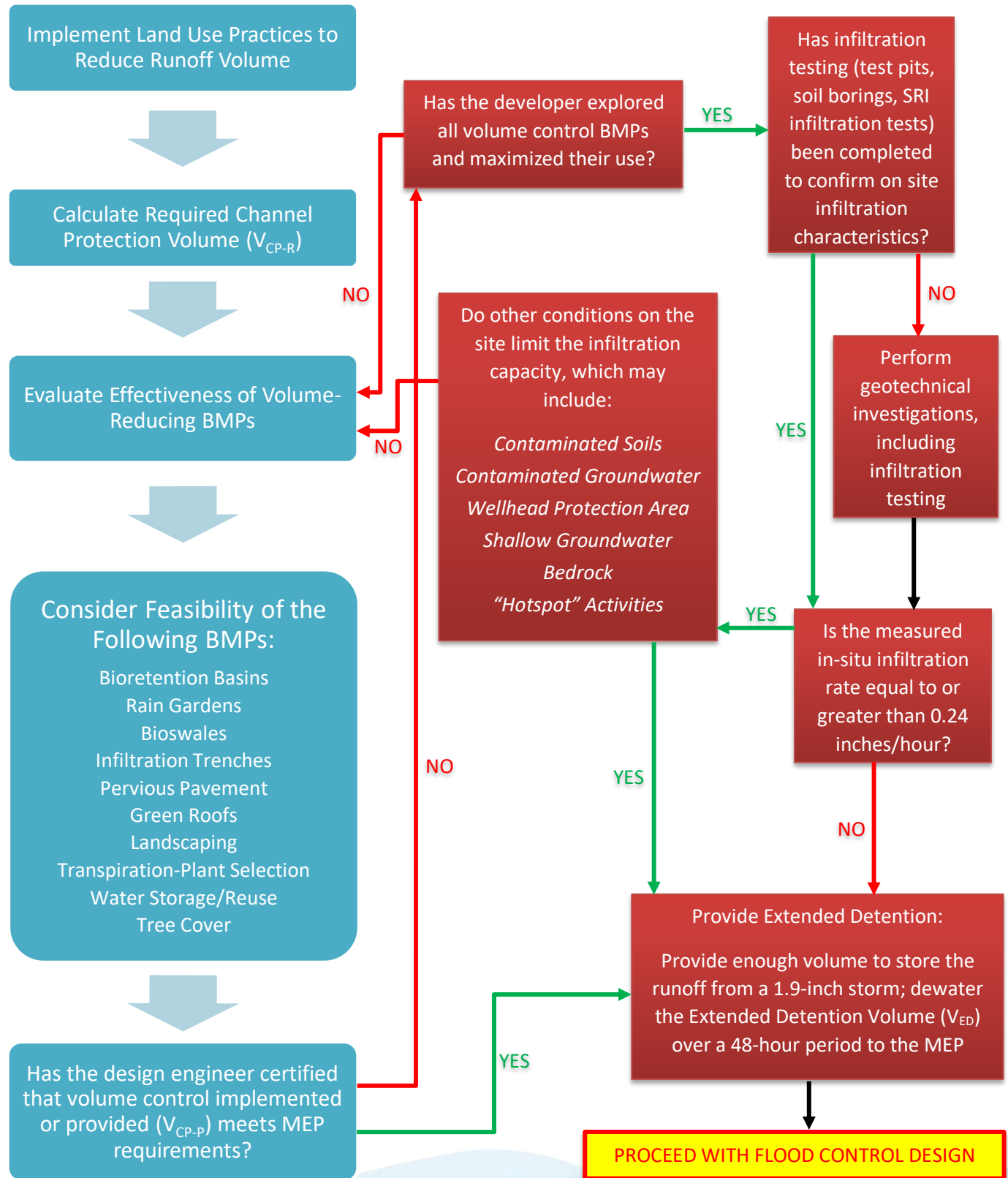
A stormwater report (narrative) is a required component of each site plan submittal; a concise and well-organized report will help to expedite the site plan review process

A final component of the site plan review process is the submittal of a GIS shapefile containing, at a minimum, the layers listed below, which consist of points and polygons that reflect the key components of the stormwater system. This information will be provided only after the technical review is completed. The GIS shapefile must reflect the final approved design and include the following layers (use the layer naming conventions listed below for ease of storing and tracking the GIS data):

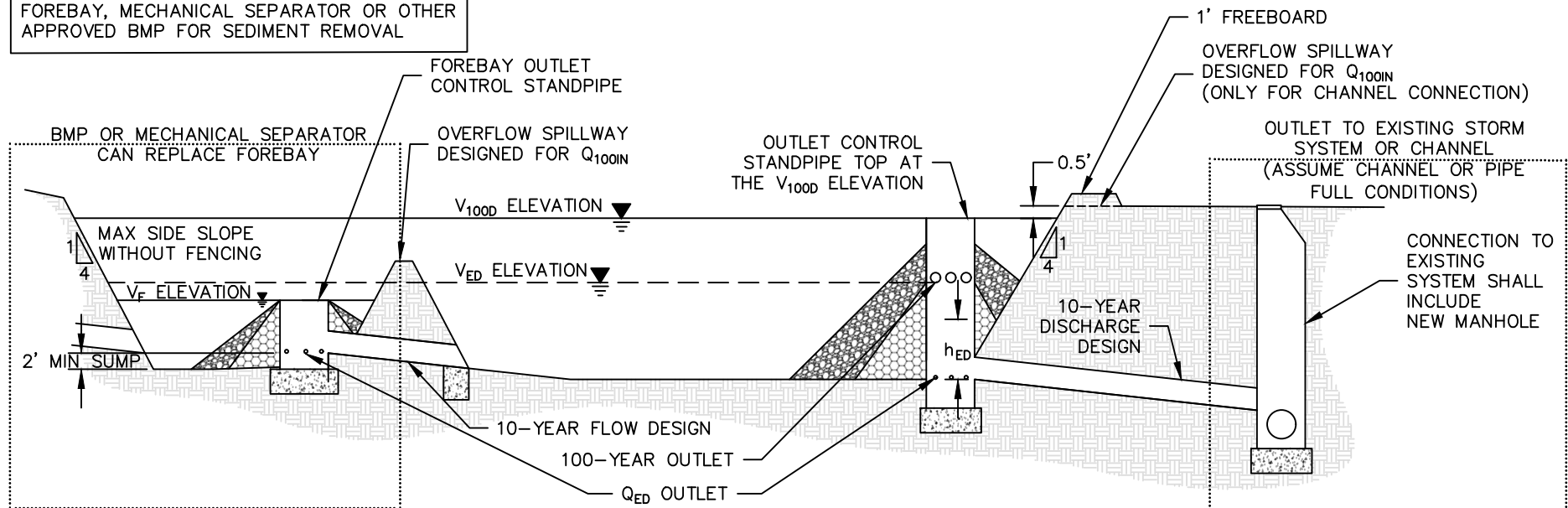
1. Development Site – Area (ac), GIS area **polygon** (DSA-1, DSA-X)
 - a. This area should reflect the entire area for which the stormwater system is designed
2. Site Discharge Point(s), GIS **points** (D-1, D-2, etc.)
 - a. These points should reflect the location of each site discharge point; this is typically the point of connection to a County Drain, city storm sewer, or other drainage feature downstream of the detention basin discharge structure
3. Dry Detention Basins, GIS area (ac) **polygons** (DBASIN-1, etc.)
 - a. The polygon should reflect the detention basin footprint up to and including the berm and any associated maintenance buffer
4. Wet Detention Basins, GIS area (ac) **polygons** (WBASIN-1, etc.)
 - a. The polygon should reflect the detention basin footprint up to and including the berm and any associated maintenance buffer
5. Retention Basins (no outlet), GIS area (ac) **polygons** (RBASIN-1, etc.)
 - a. The polygon should reflect the detention basin footprint up to and including the berm and any associated maintenance buffer
6. Sediment Forebays, GIS area (ac) **polygons** (Forebay-1, etc.)
 - a. The polygon should reflect the detention basin footprint up to and including the berm and any associated maintenance buffer
7. Mechanical Separators, GIS **points** (MS-1, etc.)
 - a. The points can be placed at a maintenance access point for each structure. If multiple mechanical separator units are proposed, create a point for each unit.
8. Bioretention – GIS area (ac), GIS **polygons** (BR-1, etc.)
 - a. The polygon should reflect the bioretention footprint including any maintenance or safety buffers
9. Bioswales – GIS area (ac), GIS **polygons** (BS-1, etc.)
10. Porous Pavement – GIS area (ac), GIS **polygons** (PP-1, etc.)
11. Cisterns/Rain Barrels, GIS **points** (RB-1, etc.)

Submitting GIS data is a new, but important, requirement; it allows for the development of a database for OCWRC and municipalities to track the location of stormwater BMPs for future inspection and enforcement activities

Channel Protection Flow Chart



PRETREATMENT: ALL POND INLETS REQUIRE A FOREBAY, MECHANICAL SEPARATOR OR OTHER APPROVED BMP FOR SEDIMENT REMOVAL



FOREBAY VOLUME (V_F)

A FOREBAY FOR ALL INLETS SHALL CAPTURE SILT, SAND, TRASH, AND DEBRIS FOR REMOVAL. THEY ARE SIZED AT 15% OF THE WATER QUALITY VOLUME (V_{WQ})

$$V_F = 545 \times C \times A$$

NOTE: ALTERNATIVE FOREBAY OUTLETS REQUIRE PRE-APPROVAL FROM THE OCWRC

EXTENDED DETENTION VOLUME (V_{ED})

$$V_{ED} = 6,897 \times C \times A$$

EXTENDED DETENTION OUTLET RATE

EXTENDED DETENTION CONTROLS THE 2-YEAR BANK FULL RELEASE RATE BY DEWATERING THE V_{ED} OVER 48-HOURS

$$Q_{ED} = V_{ED} / 172,800$$

h_{ED} is based on the water level at 50% of V_{ED}

IF MAIN DETENTION BASIN IS USED FOR INFILTRATION, THEN UPSTREAM FOREBAY SHALL BE SIZED FOR THE FULL WATER QUALITY VOLUME (V_{WQ})

REQUIRED PROFESSIONAL ENGINEER CERTIFICATIONS

- INFILTRATION RATES
- 100-YEAR ALLOWABLE OUTLET RATE (Q_{100P})
- PROVIDED INFILTRATION VOLUME (V_{CP-P})
- STORMWATER SYSTEM O&M PLANS

ALLOWABLE 100-YEAR POST-DEVELOPMENT PEAK RUNOFF RATE (Q_{100P})

Q_{100P} IS THE LESSER OF:

1. THE VARIABLE RELEASE RATE (Q_{VRR})
 $Q_{VRR} = 1.1055 - 0.206 \ln(A)$
 $Q_{100P} = Q_{VRR} \times A$
2. OCWRC RESTRICTED RATE FOR THE DRAIN (Q_R)

100-YEAR RUNOFF VOLUME (V_{100R})

$$V_{100R} = 18,985 \times C \times A$$

100-YEAR POST-CONSTRUCTION INLET RATE (Q_{100IN})

$$Q_{100IN} = C \times I_{100} \times A$$

$$I_{100} = 83.3 / (T_c + 9.17)^{0.81}$$

100-YEAR DETENTION VOLUME (V_{100D})

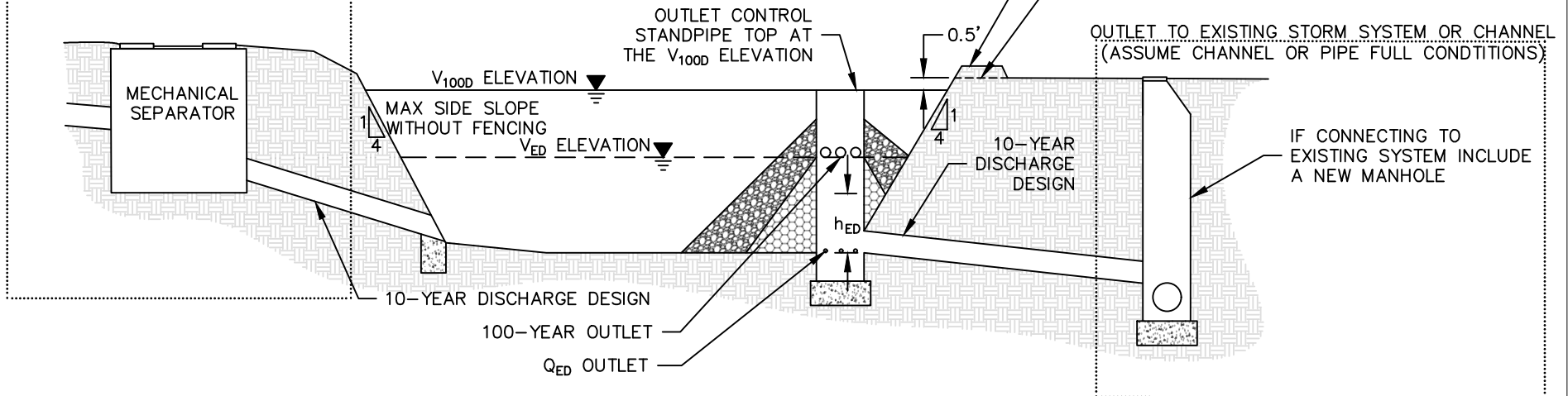
STORAGE CURVE FACTOR (R)

$$R = 0.206 - 0.15 \times \ln(Q_P / Q_{100IN})$$

$$V_{100D} = (V_{100R} \times R) - V_{CP-P}$$

PRETREATMENT: ALL POND INLETS REQUIRE A FOREBAY, MECHANICAL SEPARATOR OR OTHER APPROVED BMP FOR SEDIMENT REMOVAL

PRETREATMENT BY FOREBAY OR BMP ALSO ALLOWED



MECHANICAL SEPARATOR

REQUIRED WATER QUALITY TREATMENT IS 80 MG/L TSS, OR 80% TSS REMOVAL

SIZED BASED ON THE 1-YEAR WATER QUALITY PEAK FLOW RATE (Q_{WQ})

$$Q_{WQ} = C \times I_1 \times A$$

$$I_1 = 30.2 / (T_c + 9.17)^{0.81}$$

(MAXIMUM PEAK INTENSITY = 2.0 IN/HR FOR SMALLER SITES WITH $T_c \leq 15$ MIN)
(MINIMUM PEAK INTENSITY = 1.0 IN/HR FOR LARGER SITES WITH $T_c \geq 1$ HOUR)

REPLACES FOREBAY REQUIREMENT

INSTALLED OFFLINE AND UPSTREAM OF ANY DETENTION OR RETENTION BASIN

C = POST-DEVELOPMENT RUNOFF COEFFICIENT
A = DRAINAGE AREA (ACRES)
 T_c = TIME OF CONCENTRATION FOR THE DEVELOPMENT SITE (MIN)

EXTENDED DETENTION VOLUME (V_{ED})

$$V_{ED} = 6,897 \times C \times A$$

EXTENDED DETENTION OUTLET RATE

EXTENDED DETENTION CONTROLS THE 2-YEAR BANK FULL RELEASE RATE BY DEWATERING THE V_{ED} OVER 48-HOURS

$$Q_{ED} = V_{ED} / 172,800$$

h_{ED} is based on the water level at 50% of V_{ED}

REQUIRED PROFESSIONAL ENGINEER CERTIFICATIONS

- INFILTRATION RATES
- 100-YEAR ALLOWABLE OUTLET RATE (Q_{100P})
- PROVIDED INFILTRATION VOLUME (V_{CP-P})
- STORMWATER SYSTEM O&M PLANS

ALLOWABLE 100-YEAR POST-DEVELOPMENT PEAK RUNOFF RATE (Q_{100P})

Q_{100P} IS THE LESSER OF:

1. THE VARIABLE RELEASE RATE (Q_{VRR})
 $Q_{VRR} = 1.1055 - 0.206 \ln(A)$
 $Q_{100P} = Q_{VRR} \times A$
2. OCWRC RESTRICTED RATE FOR THE DRAIN (Q_R)

100-YEAR RUNOFF VOLUME (V_{100R})

$$V_{100R} = 18,985 \times C \times A$$

100-YEAR POST-CONSTRUCTION INLET RATE (Q_{100IN})

$$Q_{100IN} = C \times I_{100} \times A$$

$$I_{100} = 83.3 / (T_c + 9.17)^{0.81}$$

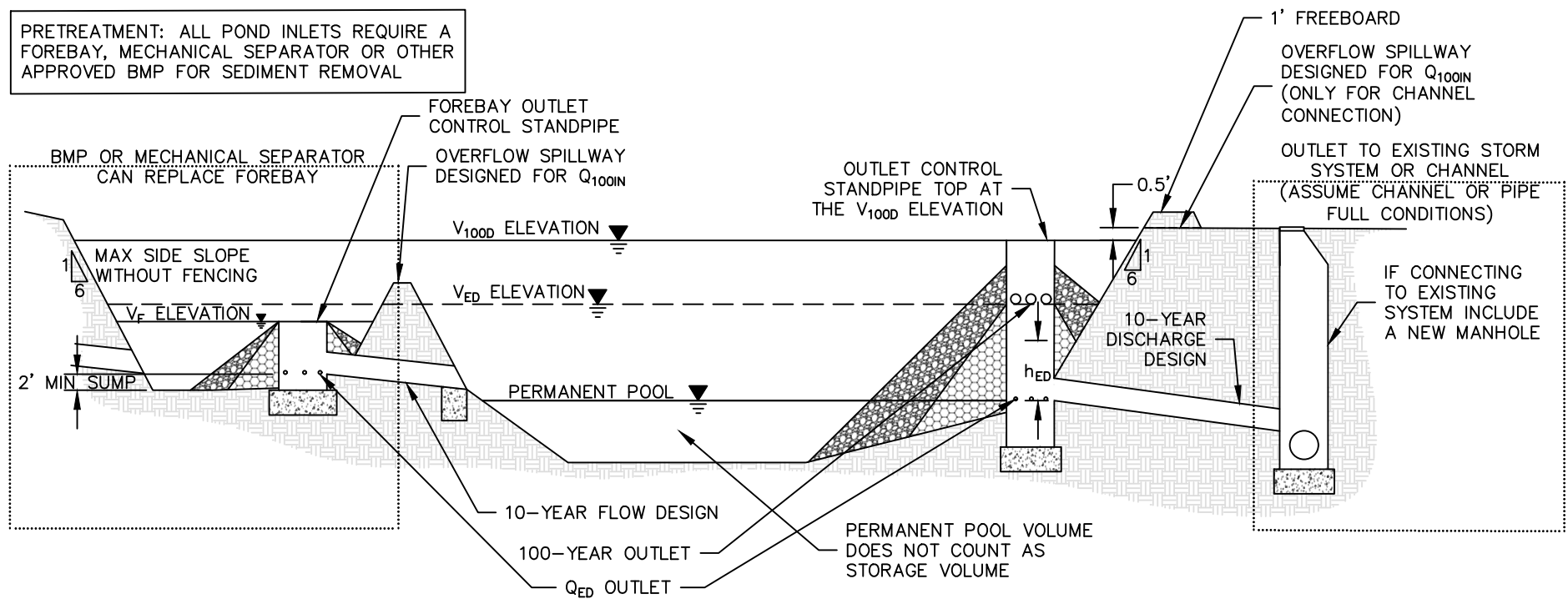
100-YEAR DETENTION VOLUME (V_{100D})

STORAGE CURVE FACTOR (R)

$$R = 0.206 - 0.15 \times \ln(Q_P / Q_{100IN})$$

$$V_{100D} = (V_{100R} \times R) - V_{CP-P}$$

PRETREATMENT: ALL POND INLETS REQUIRE A FOREBAY, MECHANICAL SEPARATOR OR OTHER APPROVED BMP FOR SEDIMENT REMOVAL



FOREBAY VOLUME (V_F)

A FOREBAY FOR ALL INLETS SHALL CAPTURE SILT, SAND, TRASH, AND DEBRIS FOR REMOVAL. THEY ARE SIZED AT 15% OF THE WATER QUALITY VOLUME (V_{WQ})

$$V_F = 545 \times C \times A$$

NOTE: ALTERNATIVE FOREBAY OUTLETS REQUIRE PRE-APPROVAL FROM THE OCWRC

EXTENDED DETENTION VOLUME (V_{ED})

$$V_{ED} = 6,897 \times C \times A$$

EXTENDED DETENTION OUTLET RATE

EXTENDED DETENTION CONTROLS THE 2-YEAR BANK FULL RELEASE RATE BY DEWATERING THE V_{ED} OVER 48-HOURS

$$Q_{ED} = V_{ED} / 172,800$$

h_{ED} is based on the water level at 50% of V_{ED}

IF MAIN DETENTION BASIN IS USED FOR INFILTRATION, THEN UPSTREAM FOREBAY SHALL BE SIZED FOR THE FULL WATER QUALITY VOLUME (V_{WQ})

REQUIRED PROFESSIONAL ENGINEER CERTIFICATIONS

- INFILTRATION RATES
- 100-YEAR ALLOWABLE OUTLET RATE (Q_{100P})
- PROVIDED INFILTRATION VOLUME (V_{CP-P})
- STORMWATER SYSTEM O&M PLANS

ALLOWABLE 100-YEAR POST-DEVELOPMENT PEAK RUNOFF RATE (Q_{100P})

Q_{100P} IS THE LESSER OF:

1. THE VARIABLE RELEASE RATE (Q_{VRR})
 $Q_{VRR} = 1.1055 - 0.206 \ln(A)$
 $Q_{100P} = Q_{VRR} \times A$
2. OCWRC RESTRICTED RATE FOR THE DRAIN (Q_R)

100-YEAR RUNOFF VOLUME (V_{100R})

$$V_{100R} = 18,985 \times C \times A$$

100-YEAR POST-CONSTRUCTION INLET RATE (Q_{100IN})

$$Q_{100IN} = C \times I_{100} \times A$$

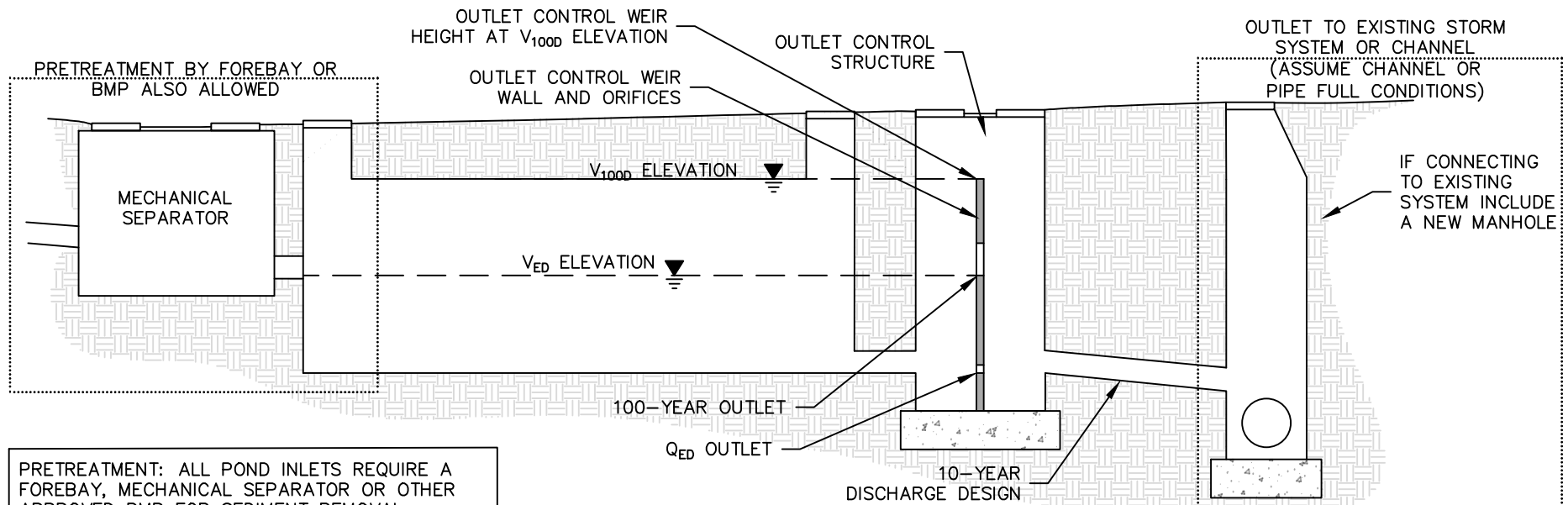
$$I_{100} = 83.3 / (T_C + 9.17)^{0.81}$$

100-YEAR DETENTION VOLUME (V_{100D})

STORAGE CURVE FACTOR (R)

$$R = 0.206 - 0.15 \times \ln(Q_P / Q_{100IN})$$

$$V_{100D} = (V_{100R} \times R) - V_{CP-P}$$



PRETREATMENT: ALL POND INLETS REQUIRE A FOREBAY, MECHANICAL SEPARATOR OR OTHER APPROVED BMP FOR SEDIMENT REMOVAL

MECHANICAL SEPARATOR

REQUIRED WATER QUALITY TREATMENT IS 80 MG/L TSS, OR 80% TSS REMOVAL

SIZED BASED ON THE 1-YEAR WATER QUALITY PEAK FLOW RATE (Q_{WQ})

$$Q_{WQ} = C \times I_1 \times A$$

$$I_1 = 30.2 / (T_c + 9.17)^{0.81}$$

(MAXIMUM PEAK INTENSITY = 2.0 IN/HR FOR SMALLER SITES WITH $T_c \leq 15$ MIN)
(MINIMUM PEAK INTENSITY = 1.0 IN/HR FOR LARGER SITES WITH $T_c \geq 1$ HOUR)

REPLACES FOREBAY REQUIREMENT

INSTALLED OFFLINE AND UPSTREAM OF ANY DETENTION OR RETENTION BASIN

EXTENDED DETENTION VOLUME (V_{ED})

$$V_{ED} = 6,897 \times C \times A$$

EXTENDED DETENTION OUTLET RATE

EXTENDED DETENTION CONTROLS THE 2-YEAR BANK FULL RELEASE RATE BY DEWATERING THE V_{ED} OVER 48-HOURS

$$Q_{ED} = V_{ED} / 172,800$$

h_{ED} is based on the water level at 50% of V_{ED}

C = POST-DEVELOPMENT RUNOFF COEFFICIENT
 A = DRAINAGE AREA (ACRES)
 T_c = TIME OF CONCENTRATION FOR THE DEVELOPMENT SITE (MIN)

REQUIRED PROFESSIONAL ENGINEER CERTIFICATIONS

- INFILTRATION RATES
- 100-YEAR ALLOWABLE OUTLET RATE (Q_{100P})
- PROVIDED INFILTRATION VOLUME (V_{CP-P})
- STORMWATER SYSTEM O&M PLANS

ALLOWABLE 100-YEAR POST-DEVELOPMENT PEAK RUNOFF RATE (Q_{100P})

Q_{100P} IS THE LESSER OF:

1. THE VARIABLE RELEASE RATE (Q_{VRR})
 $Q_{VRR} = 1.1055 - 0.206 \ln(A)$
 $Q_{100P} = Q_{VRR} \times A$
2. OCWRC RESTRICTED RATE FOR THE DRAIN (Q_R)

100-YEAR RUNOFF VOLUME (V_{100R})

$$V_{100R} = 18,985 \times C \times A$$

100-YEAR POST-CONSTRUCTION INLET RATE (Q_{100IN})

$$Q_{100IN} = C \times I_{100} \times A$$

$$I_{100} = 83.3 / (T_c + 9.17)^{0.81}$$

100-YEAR DETENTION VOLUME (V_{100D})

STORAGE CURVE FACTOR (R)

$$R = 0.206 - 0.15 \times \ln(Q_p / Q_{100IN})$$

$$V_{100D} = (V_{100R} \times R) - V_{CP-P}$$

FREEBOARD ABOVE V_{100D} IS RECOMMENDED

**2. Evergreen-Farmington
Sanitary Drain**

AGENDA
MEETING OF THE DRAINAGE BOARD FOR THE
EVERGREEN-FARMINGTON SANITARY DRAIN
April 27, 2021

1. Call meeting to order
2. Approve minutes of meeting of December 15, 2020
3. Public comment
4. Resolution approving plans and specifications for drain project
5. Resolution approving route and course of drain
6. Resolution designating area to be served by drain project
7. Resolution approving estimate of cost of drain project (\$68,000,000)
8. Resolution to:
 - A. Approve tentative apportionment of cost of drain project.

City of Auburn Hills	0.46%
Village of Beverly Hills	5.75%
Village of Bingham Farms	0.69%
City of Birmingham	0.11%
Charter Township of Bloomfield	9.54%
City of Bloomfield Hills	1.44%
City of Farmington	0.34%
City of Farmington Hills	28.29%
Village of Franklin	0.21%
City of Keego Harbor	0.32%
City of Lathrup Village	3.06%
City of Orchard Lake Village	0.37%
City of Southfield	38.17%
City of Troy	3.15%
Charter Township of West Bloomfield	8.10%
 - B. Set hearing date on tentative apportionment
 - C. Approve the form of notice
 - D. Direct that notice be published
 - E. Direct that notice be mailed
9. Meadowbrook Insurance Agency insurance proposal

10. Present Memorandum from Jason Say, P.E., dated April 27, 2021, requesting the Board to authorize Oakland County IT and Oakland County WRC to perform for internet service upgrades for a monthly recurring cost of \$684.86
11. Present Memorandum from Steve Korth, P.E., Manager, dated April 27, 2021, requesting the Board approve the operating budget, cost allocation and the Capital Improvement Program for the rate year beginning July 1, 2021
12. Present Memorandum from Evans Bantios, P.E., Civil Engineer III, dated April 27, 2021, requesting the Board approve the Engineering Services Agreement between the Drainage District and HRC for the design and bidding phase of the LVSRT Improvements project for an amount not-to-exceed of \$164,000
13. Other business
14. Approve pro rata payment to Drainage Board members
15. Adjourn

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

December 15, 2020

A meeting of the Drainage Board for the Evergreen Farmington Sanitary Drain was held at 2:00 p.m. on the 15th of December, 2020. The meeting was conducted electronically via GoToMeeting in accordance with PA 228 of 2020.

The meeting was called to order by the Chairperson. The Board indicated where they were physically located at the time of the meeting as follows:

PRESENT: Jim Nash, Oakland County Water Resources Commissioner, participating from Farmington Hills, Michigan.

David Woodward, Chairperson of the Oakland County Board of Commissioners, participating from Royal Oak, Michigan.

Helaine Zack, Chairperson of the Finance Committee, Oakland County Board of Commissioners, participating from Huntington Woods, Michigan.

Minutes of the meeting held November 17, 2020 were presented for consideration. It was moved by Zack, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3
Nays - 0

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

A Memorandum from Evans Bantios, P.E., Civil Engineer III, dated December 15, 2020, recommending the Board approve the Engineering Services Agreement for the design of the 8 Mile Outlet Conveyance Project for a not-to-exceed amount of \$762,125 was presented. It was moved by Zack, supported by Woodward, to approve the Engineering Services Agreement for the design of the 8 Mile Outlet Conveyance Project for a not-to-exceed amount of \$762,125.

ADOPTED: Yeas - 3
Nays - 0

A motion was made by Zack, supported by Woodward, to enter into closed session at 3:05 p.m. to discuss attorney-client privileged matters pursuant to 8(h) of the Open Meetings Act and which is exempt from public disclosure as subject to the attorney-client privilege pursuant to section 13(1)(g) of the Freedom of Information Act.

ROLL CALL VOTE:

Woodward: Yes

Zack: Yes

Nash: Yes

Chairperson Nash declared closed session ended at 3:25 p.m.

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

ADOPTED: Yeas - 3
Nays - 0

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

ADOPTED: Yeas - 3
Nays - 0

There being no further business, the meeting was adjourned.

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

Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the Evergreen Farmington Sanitary Drain, Oakland County, Michigan, held on the 15th day of December, 2020, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

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



Jim Nash, Chairperson

Dated: December 30, 2020

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

April 27, 2021

A meeting of the Drainage Board for the Evergreen-Farmington Sanitary Drain was held in Waterford, Michigan, on April 27, 2021.

PRESENT:

ABSENT:

The meeting was called to order by the Chairperson.

The minutes of the December 15, 2020 meeting of this Board were presented. It was moved by _____ and seconded by _____ and unanimously adopted that the said minutes be approved as presented.

The following resolution was offered by _____ and seconded by _____:

The Chairperson presented plans and specifications for the Evergreen-Farmington Sanitary Drain previously prepared by registered professional engineers and on file with the Oakland County Water Resources Commissioner. After examination of said plans and specifications it was, on motion by _____, seconded by _____:

RESOLVED, that said plans and specifications be and they hereby are received, adopted and approved and ordered filed with the Chairperson of this Board.

ADOPTED: Yeas -
Nays -

The Chairperson presented a route and course of the Evergreen-Farmington Sanitary Drain.

The following resolution was offered by _____ and seconded by _____:

RESOLVED, that the following be approved and adopted as the route and course of the Evergreen-Farmington Sanitary Drain:

(See Attached Exhibit A)

ADOPTED: Yeas –
Nays –

The Chairperson presented a description of the area to be served by the drain project.

The following resolution was offered by _____ and seconded by _____:

RESOLVED, that the following be designated as the area to be served by the drain project:

(See Attached Exhibit B)

ADOPTED: Yeas –
Nays –

The following resolution was offered by _____ and seconded by _____:

The Chairperson presented an estimate of the cost of the drain project, which estimate is in the aggregate amount of \$68,000,000.

Upon motion by _____, seconded by _____, it was:

RESOLVED, that the estimate of cost of the drain project, in the amount of \$68,00,000, be and the same hereby is adopted, approved and accepted.

ADOPTED: Yeas -
Nays -

The following resolution was offered by _____ and seconded by _____:

A tentative apportionment of costs was presented to the Board and ordered filed with the Chairperson.

The following resolution was offered by _____ and seconded by _____:

BE IT RESOLVED BY THE DRAINAGE BOARD FOR THE EVERGREEN-FARMINGTON SANITARY DRAIN, as follows:

1. That this Board hereby tentatively establishes that the cost of the Evergreen-Farmington Sanitary Drain shall be apportioned against public corporations, as follows:

City of Auburn Hills	0.46%
Village of Beverly Hills	5.75%
Village of Bingham Farms	0.69%
City of Birmingham	0.11%
Charter Township of Bloomfield	9.54%
City of Bloomfield Hills	1.44%
City of Farmington	0.34%
City of Farmington Hills	28.29%

Village of Franklin	0.21%
City of Keego Harbor	0.32%
City of Lathrup Village	3.06%
City of Orchard Lake Village	0.37%
City of Southfield	38.17%
City of Troy	3.15%
Charter Township of West Bloomfield	8.10%

2. That this Drainage Board shall meet on the _____ day of _____, 2021, at __:__.m., prevailing Eastern Time, at the Office of the Oakland County Water Resources Commissioner, One Public Works Drive, Waterford, Michigan and/or electronically via GoToMeeting, as provided by law, for the purpose of hearing any objections to said apportionment.

3. That the notice of such hearing shall be in substantially the following form, to wit:

CITY OF AUBURN HILLS, VILLAGE OF BEVERLY HILLS, VILLAGE OF BINGHAM FARMS, CITY OF BIRMINGHAM, CHARTER TOWNSHIP OF BLOOMFIELD, CITY OF BLOOMFIELD HILLS, CITY OF FARMINGTON, CITY OF FARMINGTON HILLS, VILLAGE OF FRANKLIN, CITY OF KEEGO HARBOR, CITY OF LATHRUP VILLAGE, CITY OF ORCHARD LAKE VILLAGE, CITY OF SOUTHFIELD, CITY OF TROY, CHARTER TOWNSHIP OF WEST BLOOMFIELD
COUNTY OF OAKLAND

EVERGREEN-FARMINGTON SANITARY DRAIN

NOTICE OF MEETING TO HEAR OBJECTIONS TO APPORTIONMENT OF COST OF ABOVE INTRA-COUNTY DRAIN PROJECT

NOTICE IS HEREBY GIVEN, that the cost of the Evergreen-Farmington Sanitary Drain which consists of locating, establishing and constructing an intra-county drain project consisting of the existing Evergreen-Farmington Sewage Disposal System and all improvements necessary to bring the Evergreen-Farmington Sewage Disposal System into compliance with Administrative Consent Order 04995 entered by the State of Michigan Department of the Environment, Great Lakes, and Energy on August 14, 2019, in accordance with the provisions of Chapter 20 of Act 40, Public Acts of Michigan, 1956, as amended, all as more fully set forth in the petition filed by the Charter Township of West Bloomfield and the City of Southfield with respect to the drain project, has been tentatively apportioned as follows, to wit:

<u>Public Corporation</u>	<u>Tentative Percentage of Cost</u>
City of Auburn Hills	0.46%
Village of Beverly Hills	5.75%
Village of Bingham Farms	0.69%
City of Birmingham	0.11%
Charter Township of Bloomfield	9.54%
City of Bloomfield Hills	1.44%
City of Farmington	0.34%

City of Farmington Hills	28.29%
Village of Franklin	0.21%
City of Keego Harbor	0.32%
City of Lathrup Village	3.06%
City of Orchard Lake Village	0.37%
City of Southfield	38.17%
City of Troy	3.15%
Charter Township of West Bloomfield	8.10%

NOTICE IS FURTHER GIVEN, that the Drainage Board for the Evergreen-Farmington Sanitary Drain, will meet at _:_ p.m., prevailing Eastern Time, on the ____ day of _____, 2021, in the Office of the Oakland County Water Resources Commissioner, One Public Works Drive, Waterford, Michigan and/or electronically via GoToMeeting, as provided by law, for the purpose of hearing any objections to said apportionment.

NOTICE IS FURTHER GIVEN, that the plans, specifications, route and course and estimate of cost of the Evergreen-Farmington Sanitary Drain and also a description of the area to be served thereby are on file in the office of the Oakland County Water Resources Commissioner, One Public Works Drive, Waterford, Michigan. The estimated cost of the drain project is \$68,000,000, but the apportionment percentages as finally established by the Drainage Board shall apply to the actual cost of the aforementioned portions of the drain project when finally completed.

NOTICE IS FURTHER GIVEN, that at said hearing the public corporations 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 apportionment the Drainage Board shall determine whether the apportionment fairly reflects the benefits to accrue to each public corporation and the extent to which each public corporation contributes to the conditions which make the drain project necessary. If the Drainage Board determines that the apportionment is equitable it will enter a Final Order of Apportionment confirming the apportionment. Section 483 of Act 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, with the Chairperson of the Drainage Board for the Evergreen-Farmington Sanitary Drain, and that if no such proceedings shall be brought within said 20 day period the legality of the assessments for the drain 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 estimated cost of the drain project against said public corporations in accordance with the confirmed apportionment will be prepared and presented to the Drainage Board for approval.

This notice is given to and for the benefit of the aforesaid mentioned public corporations and all taxpayers thereof by order of the Drainage Board for the Evergreen-Farmington Sanitary Drain.

Jim Nash

Chairperson of the Drainage Board for the
Evergreen-Farmington Sanitary Drain;
Oakland County Water Resources Commissioner

Dated: April 27, 2021

4. That said notice shall be published twice in The Oakland Press, a newspaper published in the County of Oakland, the first publication to be not less than twenty (20) days prior to the time of said hearing.

5. That said notice shall be sent by registered or certified mail to the Clerk of the City of Auburn Hills, the Village of Beverly Hills, the Village of Bingham Farms, the City of Birmingham, the Charter Township of Bloomfield, the City of Bloomfield Hills, the City of Farmington, the City of Farmington Hills, the Village of Franklin, the City of Keego Harbor, the City of Lathrup Village, City of Orchard Lake Village, the City of Southfield, the City of Troy, the Charter Township of West Bloomfield, the County Clerk of the County of Oakland and the County Road Commission of the County of Oakland, which mailing shall be not less than twenty (20) days prior to the time of said hearing.

6. That all resolutions or parts of resolutions in conflict herewith are hereby rescinded.

ADOPTED: Yeas -
Nays -

Meadowbrook Insurance Agency insurance provided a proposal for potential insurance policies. It was moved by _____, supported by _____, to approve the policy recommendation as presented.

ADOPTED: Yeas-
Nays-

A Memorandum from Jason Say, P.E., dated April 27, 2021, was presented requesting the Board to authorize Oakland County IT and Oakland County WRC to perform for internet service upgrades for a monthly recurring cost of \$684.86. It was moved by _____, supported by _____, to approve the Memorandum as presented.

ADOPTED: Yeas-
Nays-

A Memorandum from Steve Korth, P.E., Manager, dated April 27, 2021, was presented requesting the Board approve the operating budget, cost allocation and the Capital Improvement Program for the rate year beginning July 1, 2021. It was moved by _____, supported by _____, to approve the Memorandum as presented.

ADOPTED: Yeas-
Nays-

A Memorandum from Evans Bantios, P.E., Civil Engineer III, dated April 27, 2021, was presented requesting the Board approve the Engineering Services Agreement between the Drainage District and HRC for the design and bidding phase of the LVSRT Improvements project for an amount not-to-exceed of \$164,000. It was moved by _____, supported by _____, to approve the Memorandum as presented.

ADOPTED: Yeas-
Nays-

Upon motion by _____, seconded by _____ and unanimously adopted, the meeting was adjourned.

April 27, 2021

Chairperson

STATE OF MICHIGAN)
) SS:
COUNTY OF OAKLAND)

I hereby certify that the foregoing is a true and complete copy of the minutes of a meeting of the Drainage Board for the Evergreen-Farmington Sanitary Drain, Oakland County, Michigan, held on April 27, 2021, and that the minutes are on file in the offices of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that notice of the meeting was given in accordance with the Open Meetings Act.

Chairperson of the Drainage Board

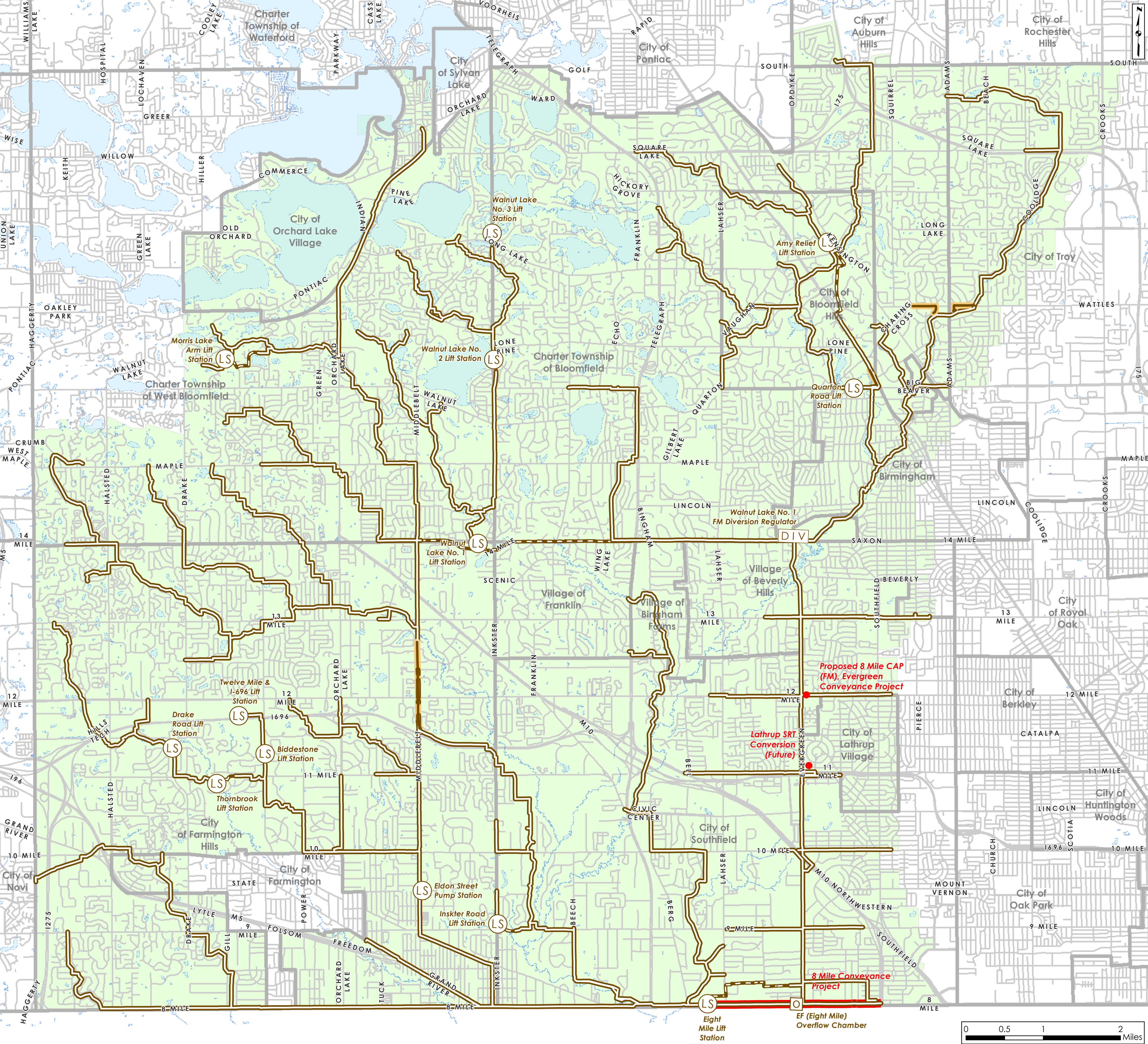









Exhibit A Evergreen-Farmington Route and Course

- | | | | |
|---|---------------------|---|-------------------------------|
|  | Overflow Chamber |  | EFSDS Gravity Interceptor |
|  | Diversion Regulator |  | EFSDS Linear Storage |
|  | Lift Station |  | EFSDS Non-Gravity Interceptor |
| | |  | EFSDS District |

Evergreen-Farmington Sanitary Drain

Exhibit B - Area to be Served

The area to be served includes areas within the following table of Public Entities as depicted in the following map depiction.

Public Entity
City of Auburn Hills
Village of Bingham Farms
City of Bloomfield Hills
Village of Beverly Hills
City of Birmingham
Bloomfield Township
City of Farmington
City of Farmington Hills
Village of Franklin
City of Keego Harbor
City of Lathrup Village
City of Orchard Lake Village
City of Southfield
City of Troy
West Bloomfield Township

Waterford

Pontiac

Sylvan Lake

Keego Harbor

Orchard Lake Village

West Bloomfield

Bloomfield Hills

Bloomfield

Bingham Farms

Birmingham

Beverly Hills

Franklin

Southfield Township

Lathrup Village

Farmington Hills

Southfield

Farmington

Berkley

Royal Oak



Huntington Woods

Oak Park

Royal Oak Township

**EXHIBIT B
EVERGREEN-FARMINGTON
AREA TO BE SERVED**

Legend

-  Municipal District
-  Evergreen Farmington Sanitary Drain



Not To Scale



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.

Revision Date: 4/13/2021
J:\Mapping\GIS\Sanitary-Combined\Special Projects\EFSD\Drain Board\Area To Be Served.mxd



Evergreen-Farmington Sanitary Drain Drainage District

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

Insurance Proposal for Property, General Liability, Excess Liability, and Pollution Liability Coverage.

4/27/2021

to

4/27/2022

(Dated 4/14/21)

Evergreen-Farmington Sanitary Drain Drainage District

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Meadowbrook Insurance Agency

MISSION STATEMENT

Global, Innovative, Architect of Risk Management Solutions for our Clients

MANTRA

Urgency.....Integrity.....Solutions

Meadowbrook is proud to be affiliated with the following charitable organizations.



Evergreen-Farmington Sanitary Drain Drainage District

Meadowbrook Agency Service Team

GENERAL INFORMATION

toll free - 800 / 482-2726
switchboard/after hours: 248 / 358-1100
website: www.meadowbrook.com

PRODUCER

Sal Saputo
Executive Vice President
tel - 248 / 204-8163
cell - 248 / 943-1317
e-mail: ssaputo@meadowbrook.com

MARKETING

James Kelley
Vice President Marketing
tel - 248 / 204-8153
cell - 248 / 914-4995
e-mail: james.kelley@meadowbrook.com

PRIMARY CONTACT

Phillip Anderson
Account Manager
tel - 248 / 204-8569
e-mail: Phillip.Anderson@meadowbrook.com

BACK UP CONTACT

Michele Opie, CIC
Account Manager
tel - 248 / 204-8215
e-mail: michele.opie@meadowbrook.com

GROUP BENEFITS

David Sheeran, CPA
President
Agency Operations
tel - 248 / 204-8544
cell - 248 / 361-0084
e-mail: dave.sheeran@meadowbrook.com

COMMERCIAL LINES

David Sheeran, CPA
President
Agency Operations
tel - 248 / 204-8544
cell - 248 / 361-0084
e-mail: dave.sheeran@meadowbrook.com

CLAIMS REPORTING

*All claims - except Workers Compensation**

It is our ongoing mission to provide effective, efficient solutions for your claims servicing needs. In keeping with the goal of offering world-class claims service and enhancing your experience, we've established two new, centralized claims reporting contacts.

Telephone:
(888) 965-3527

Email:

Agencyclaims@meadowbrook.com Workers Compensation claims will continue to be reported directly to your insurance company.

Evergreen-Farmington Sanitary Drain Drainage District

Marketing Summary 4/27/2021 to 4/27/2022

PROPERTY INSURANCE MARKETS:

Insurance Carrier	Response
Hartford	Declined – Due to Underground Exposure
Allianz	Declined – Outside Risk Appetite
AIG	Declined – Due to Underground Exposure
Chubb	Quoted
Travelers	Declined – Due to Underground Exposure
Great American	Did not respond
Liberty	Declined – Due to Underground Exposure
Zurich	Did not respond
Berkshire Property	Declined – Class of Business
Affiliated FM	Did not respond
CNA	Declined – Outside Risk Appetite
XL	Did not respond
Crum & Forester	Declined – Class of Business

PUBLIC ENTITY LIABILITY INSURANCE MARKETS:

Insurance Carrier	Response
Trident / Argonaut	Quoted - Proposed
AIG	Declined Primary (Minimum Premium for \$5M is \$100k)
Travelers	Declined – Population too large (market for small municipalities)
Liberty Mutual	Declined – Population too large
C.N.A.	Declined – Outside Risk Appetite
HDI	Quoted Excess Liability
Chubb	Not Competitive on Primary (Min. Premium for \$5M is \$100k)
Hallmark	Declined
Berkley	Minimum Premium for \$5M is \$150k
Markel	Declined – Population too large
Merchants	Declined – Population too large
Westchester	Declined – Population too large
American Alternative	Declined
Genesis	Minimum Premium for \$5M is \$125k
RSUI	Declined – Need higher attachment
Hudson	Declined
Starr	Declined – Outside Risk Appetite
Brit	Minimum Premium for \$5M is 180k
Munich Re	Minimum Premium for \$10M is \$200k
RLI	Declined – Outside Risk Appetite
Axis	Minimum Premium for \$5M is \$100k
Old Republic	Minimum Premium for \$5M is \$100k
One Beacon	Declined

Marketing Summary *(continued)*

PROPERTY RFP SUBMISSION:

Phillip Anderson

From: James Kelley
Sent: Thursday, February 25, 2021 10:36 AM
To: Kemper Morton
Cc: Phillip Anderson
Subject: FW: Re: Evergreen-Farmington Sanitary Drain Drainage District - Property Submission
Attachments: Acord 125 EFSDD.pdf; EFSDD diagram District 24 2021.pdf; EFSDD SOV Vertical Assets 2021.xlsx; EFSDD SOV Horizontal Ass 2021.xlsx; EFSDD condition report - Exec summary.pdf; EFSDD Finance Rpt 12 months 9-30-2020.xls

Hi Kemper,

Meadowbrook is seeking property quotes for our long-term Insured, Oakland County Water Resources Commissioner (WRC). WRC is forming a new drainage district (a chapter 20 drain under the Michigan Drain code of 1956) named the Evergreen-Farmington Sanitary Drain Drainage District (EFSDD).

A description of the operations of EFSDDD – located in south central Oakland County, Michigan and serving a pop of 313,000, the system includes two broad classes of assets as follows:

- Buildings and Facilities (vertical assets): including pump stations, flow level monitors, flow regulators, sanitary retention tanks, linear storage and retention treatment basins. **TIV \$41.1M**
- Sanitary Sewage system (horizontal assets): includes sewers and manholes that collect sanitary sewage from customers. There are 166 miles of 8 inch to 78 inch diameter sewers and 3,250 manholes. Installation dates are from 1957 to 2014. **TIV \$1.6B**

Currently only the vertical assets are insured for property but going forward WRC is planning to insure all property (both vertical and horizontal assets). They have not had any property losses in 5 years. WRC will provide a letter confirming on losses prior to quoting.

Property Coverage Specs

- TIV \$1,665,362,263 (both vertical and horizontal assets)
- All risk including earth movement and flood
- Loss limits of \$25M and \$50M
- Deductibles - \$1M-\$3M-\$5M

Attachments

1. Acord 125 app
2. Diagram of EFSDD
3. SOV – Vertical Assets
4. SOV – Horizontal Assets
5. Wastewater Condition Report (abbreviated version sent due to large size)
6. Financial Report EFSDD as of 9-30-2020

Due to an upcoming Board meeting to discuss property insurance we **need to know by March 5th** if you will be able to consider offering a quotation. The effective date for the property program is **April 1, 2021.**

If any questions or to discuss the risk please call my cell at 248-914-4995.

Thanks, Jim

James Kelley, CPCU, LIC
Meadowbrook Insurance Agency
Vice President, Marketing
26255 American Drive, Southfield, MI 48034
(W) 248-204-8153 (C) 248-914-4995
James.kelley@meadowbrook.com

Marketing Summary *(continued)*

PUBLIC ENTITY LIABILITY RFP SUBMISSION:

Phillip Anderson

From: James Kelley
Sent: Wednesday, March 10, 2021 2:45 PM
To: Phillips, Robin
Cc: Phillip Anderson
Subject: FW: Evergreen-Farmington Sanitary Drain Drainage District (EFSD)
Attachments: EFSD Acord Applications.pdf; Trident_Public_Limit_App EFSD.pdf; Utilities Supp app EFSD.pdf; EFSDS diagram District 24 20201125.pdf; 12 months 9-30-2020.xls; EFSDS condition report - 49 pages.pdf; 2021-01-04 No Known Loss Letter EFSDDD.pdf

Hi Robin,

We talked about this last week and you were going to take a look at the submission and let me know thoughts?

Thanks, Jim

From: James Kelley
Sent: Thursday, March 4, 2021 11:59 AM
To: Phillips, Robin <Robin.Phillips@Chubb.com>
Cc: Phillip Anderson <Phillip.Anderson@Meadowbrook.com>
Subject: FW: Evergreen-Farmington Sanitary Drain Drainage District (EFSD)

Hi Robin,

Following up on our conversation this morning here is the PE submission we discussed. You agreed to review and let me know if Chubb could be competitive.

We are requesting quotes from markets for Public Officials GL and E&O for the Evergreen-Farmington Sanitary Drain Drainage District. EFSDDD is a legal entity created as a Chapter 20 intra-county drainage district under the MI Drain Code, Act 40 of 1956. Our Insured is Oakland County Water Resource Commissioner (WRC) who operates and maintains the District.

A description of the operations of EFSDDD – located in south central Oakland County, Michigan and serving a pop of 313,000, the system includes two broad classes of assets as follows:

- Buildings and Facilities (vertical assets): including pump stations, flow level monitors, flow regulators, sanitary retention tanks, linear storage and retention treatment basins.
- Sanitary Sewage system (horizontal assets): includes sewers and manholes that collect sanitary sewage from customers. There are 166 miles of 8 inch to 78 inch diameter sewers and 3,250 manholes. Installation dates are from 1957 to 2014.

The system does not currently carry Public Entity liability insurance, however the Drainage Boards have been buying this coverage as they update their risk management practices going forward. WRC in-house legal tracks and manages all liability incidents or claims made against the District. In reviewing their record's, the District has not had any PE incidents or claims since 2015 (see attached NKLL from WRC attorney).

Please see attached the following underwriting information:

- Acord app
- PE and Supplemental Utility app
- Diagram of EFSDDD System
- Financial Report
- Wastewater System Asset Management Plan 11-20-18 (summary sections of the 209 page report))
- NKLL
- www.oakgov.com/water/

We are requesting primary limits of 1M/2M with excess of 20M.

Please let us know if you intend to provide a quote? We appreciate your interest and look forward to working with you.
Best regards, Jim

James Kelley, CPCU, LIC
Meadowbrook Insurance Agency
Vice President, Marketing
26255 American Drive, Southfield, MI 48034
(W) 248-204-8153 (C) 248-914-4995
James.kelley@meadowbrook.com

Marketing Summary *(continued)*

MARKET RESPONSES:

Phillip Anderson

From: Filippi, Paul <Paul.Filippi@aig.com>
Sent: Thursday, February 25, 2021 12:50 PM
To: James Kelley
Cc: Phillip Anderson
Subject: External Email: RE: Re: Evergreen-Farmington Sanitary Drain Drainage District - Property Submission

EXTERNAL EMAIL!

Jim,

Thank you for sending the submission over.

Unfortunately, AIG Retail Property will not be a market for the 'horizontal assets' (166 miles of sewers and manholes). This is a very challenging risk for us to underwrite and assess the risk quality.

We would only be interested in the 'vertical asset' part of the program.

Let me know if you have any questions. Appreciate you giving us a look.

Regards,

Paul Filippi
Underwriter, Great Lakes Region
Retail Property
Risk Specialists Companies Insurance Agency Inc.
d/b/a RSCIA in NH, UT & VT

1300 East 9th Street, Ste.#1501, Cleveland, OH 44114
C (+1) 216.403.8139
paul.filippi@aig.com | www.aig.com

From: James Kelley [mailto:James.Kelley@Meadowbrook.com]
Sent: Thursday, February 25, 2021 9:47 AM
To: Filippi, Paul
Cc: Phillip Anderson
Subject: [EXTERNAL] Re: Evergreen-Farmington Sanitary Drain Drainage District - Property Submission

This message is from an external sender; be cautious with links and attachments.

Hi Paul,

Following up on my call this morning, Meadowbrook is seeking property quotes for our long-term Insured, Oakland County Water Resources Commissioner (WRC). WRC is forming a new drainage district (a chapter 20 drain under the Michigan Drain code of 1956) named the Evergreen-Farmington Sanitary Drain Drainage District (EFSDDD).

A description of the operations of EFSDDD – located in south central Oakland County, Michigan and serving a pop of 313,000, the system includes two broad classes of assets as follows:

- Buildings and Facilities (vertical assets): including pump stations, flow level monitors, flow regulators, sanitary retention tanks, linear storage and retention treatment basins. TIV \$41.1M
- Sanitary Sewage system (horizontal assets): includes sewers and manholes that collect sanitary sewage from customers. There are 166 miles of 8 inch to 78 inch diameter sewers and 3,250 manholes. Installation dates are from 1957 to 2014. TIV \$1.6B

Currently only the vertical assets are insured for property but going forward WRC is planning to insure all property (both vertical and horizontal assets). They have not had any property losses in 5 years. WRC will provide a letter confirming on losses prior to quoting.

Property Coverage Specs

- TIV \$1,665,362,263 (both vertical and horizontal assets)
- All risk including earth movement and flood
- Loss limits of \$25M and \$50M
- Deductibles - \$1M-\$3M-\$5M

Attachments

1. Acord 125 app
2. Diagram of EFSDD
3. SOV – Vertical Assets
4. SOV – Horizontal Assets
5. Wastewater Condition Report (abbreviated version sent due to large size)
6. Financial Report EFSDD as of 9-30-2020

Due to an upcoming Board meeting to discuss property insurance we need to know by March 5th if you will be able to consider offering a quotation. The effective date for the property program is April 1, 2021. If any questions or to discuss the risk please call my cell at 248-914-4995.

Thanks, Jim

James Kelley, CPCU, LIC
 Meadowbrook Insurance Agency
 Vice President, Marketing
 26255 American Drive, Southfield, MI 48034
 (W) 248-204-8153 (C) 248-914-4995
 James.kelley@meadowbrook.com

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Phillip Anderson

From: Hurne, Nicholas (AGCS) <nicholas.hurne@agcs.allianz.com>
Sent: Thursday, February 25, 2021 1:37 PM
To: James Kelley
Cc: Phillip Anderson
Subject: External Email: RE: Re: Evergreen-Farmington Sanitary Drain Drainage District - Property Submission

EXTERNAL EMAIL!

Hi Jim, I shared the Evergreen-Farmington risk with our Corporate Property team, and it's not going to be a fit for their book either. I'm going to have this reserved, but we'll need to decline/close the file.

Great catching up earlier, and I hope your 2021 is off to a good start!

Nick Hurne
HPR Property
Underwriting Specialist
Allianz Global Corporate & Specialty®

Cleveland, OH

Cell: +1.312.660.8141
Email: Nicholas.Hurne@agcs.allianz.com
www.agcs.allianz.com

From: James Kelley <James.Kelley@Meadowbrook.com>
Sent: Thursday, February 25, 2021 10:04 AM
To: Hurne, Nicholas (AGCS) <nicholas.hurne@agcs.allianz.com>
Cc: Phillip Anderson <Phillip.Anderson@Meadowbrook.com>
Subject: FW: Re: Evergreen-Farmington Sanitary Drain Drainage District - Property Submission

Hi Nick,

Following up on my call this morning, Meadowbrook is seeking property quotes for our long-term Insured, Oakland County Water Resources Commissioner (WRC). WRC is forming a new drainage district (a chapter 20 drain under the Michigan Drain code of 1956) named the Evergreen-Farmington Sanitary Drain Drainage District (EFSDDD).

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Currently only the vertical assets are insured for property but going forward WRC is planning to insure all property (both vertical and horizontal assets). They have not had any property losses in 5 years. WRC will provide a letter confirming on losses prior to quoting.

Property Coverage Specs

Phillip Anderson

From: Meghan Forsgren <MForsgren@bhhc.com>
Sent: Thursday, February 25, 2021 3:15 PM
To: James Kelley
Subject: External Email: RE: Re: Evergreen-Farmington Sanitary Drain Drainage District - Property Submission

EXTERNAL EMAIL!

Hello James,

I don't believe we have spoken yet, but I am your new auto and property rep for BHHC. My contact information is below for you.

We are not a market for this class of business. Sorry we will not be able to help with this one.

Meghan Forsgren | Senior Marketing Representative
direct: 402.916.3039 | mforsgren@bhhc.com | hello@bhhc.com

Berkshire Hathaway Homestate Companies
Berkshire Hathaway Homestate Insurance Company | Brookwood Insurance Company
Continental Divide Insurance Company | Cypress Insurance Company
Oak River Insurance Company | Redwood Fire and Casualty Insurance Company

From: James Kelley [<mailto:James.Kelley@Meadowbrook.com>]
Sent: Thursday, February 25, 2021 7:36 AM
To: Kemper Morton <KMorton@bhhc.com>
Cc: Phillip Anderson <Phillip.Anderson@Meadowbrook.com>
Subject: FW: Re: Evergreen-Farmington Sanitary Drain Drainage District - Property Submission

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Hi Kemper,

Meadowbrook is seeking property quotes for our long-term Insured, Oakland County Water Resources Commissioner (WRC). WRC is forming a new drainage district (a chapter 20 drain under the Michigan Drain code of 1956) named the Evergreen-Farmington Sanitary Drain Drainage District (EFSDDD).

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- **Sanitary Sewage system (horizontal assets):** includes sewers and manholes that collect sanitary sewage from customers. There are 166 miles of 8 inch to 78 inch diameter sewers and 3,250 manholes. Installation dates are from 1957 to 2014. TIV \$1.6B

Phillip Anderson

From: Petric,Alison M <Alison.Petric@cna.com>
Sent: Tuesday, March 2, 2021 10:04 AM
To: James Kelley
Cc: Phillip Anderson
Subject: External Email: RE: Re: Evergreen-Farmington Sanitary Drain Drainage District - Property Submission

EXTERNAL EMAIL!

Jim,

Thanks for the submission. This one falls outside our appetite given all the horizontal assets.

Thanks,

Ali Petric

Underwriting Consultant
Large Property

CNA
550 Polaris Parkway, Suite 100
Westerville, OH 43082
Office: 614.818.7853
Cell: 614.425.2190

www.cna.com

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From: James Kelley [mailto:James.Kelley@Meadowbrook.com]
Sent: Thursday, February 25, 2021 10:49 AM
To: Petric,Alison M
Cc: Phillip Anderson
Subject: [EXTERNAL] FW: Re: Evergreen-Farmington Sanitary Drain Drainage District - Property Submission

Hi Ali,

Meadowbrook is seeking property quotes for our long-term Insured, Oakland County Water Resources Commissioner (WRC). WRC is forming a new drainage district (a chapter 20 drain under the Michigan Drain code of 1956) named the Evergreen-Farmington Sanitary Drain Drainage District (EFSDD).

A description of the operations of EFSDDD – located in south central Oakland County, Michigan and serving a pop of 313,000, the system includes two broad classes of assets as follows:

Phillip Anderson

From: Faust, Nicholas <Nicholas.Faust@cfins.com>
Sent: Wednesday, March 3, 2021 2:41 PM
To: James Kelley
Cc: Blake, Stacy; Phillip Anderson
Subject: External Email: RE: Re: Evergreen-Farmington Sanitary Drain Drainage District - Property Submission

EXTERNAL EMAIL!

Jim,

Thank you for the opportunity, unfortunately I am unable to provide a quote as this class of business is outside of our appetite.

Best,

Nick

Nicholas Faust, AU | Senior Underwriter | Middle Market Solutions
Crum & Forster
One South Wacker Drive, Suite 2380 | Chicago, IL 60606 | United States
t + 312.596.6654 | m + 312.805.9700
Nicholas.Faust@cfins.com | www.cfins.com

From: James Kelley <James.Kelley@Meadowbrook.com>
Sent: Thursday, February 25, 2021 9:46 AM
To: Faust, Nicholas <Nicholas.Faust@cfins.com>
Cc: Blake, Stacy <STACY.BLAKE@CFINS.COM>; Phillip Anderson <Phillip.Anderson@Meadowbrook.com>
Subject: FW: Re: Evergreen-Farmington Sanitary Drain Drainage District - Property Submission

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Hi Nicholas,

I received an out of office message from Stacy giving your contact while she is out. Please see below and confirm receipt.

Thanks, Jim

From: James Kelley
Sent: Thursday, February 25, 2021 10:40 AM
To: Blake, Stacy <STACY.BLAKE@CFINS.COM>
Cc: Phillip Anderson <Phillip.Anderson@Meadowbrook.com>
Subject: FW: Re: Evergreen-Farmington Sanitary Drain Drainage District - Property Submission

Phillip Anderson

From: Rudy, Jason (Middle and Large Commercial) <Jason.Rudy@thehartford.com>
Sent: Tuesday, March 2, 2021 7:31 AM
To: James Kelley
Cc: Phillip Anderson
Subject: External Email: RE: Re: Evergreen-Farmington Sanitary Drain Drainage District - Property Submission

EXTERNAL EMAIL!

Jim,

I appreciate the submission but due to the occupancy and underground pipes we will have to pass on this one. Let me know if you have any questions and thanks for sending it in.

Thanks,

JASON RUDY
Executive Underwriter
Large Property

The Hartford
7100 E. Pleasant Valley Rd. Suite 200
Independence, OH 44131
W: 216-986-6215
M: 440-213-7656

jason.rudy@thehartford.com

www.thehartford.com



Business Insurance
Employee Benefits
Auto
Home

From: James Kelley [mailto:James.Kelley@Meadowbrook.com]
Sent: Thursday, February 25, 2021 10:25 AM
To: Rudy, Jason (Middle and Large Commercial) <Jason.Rudy@thehartford.com>
Cc: Phillip Anderson <Phillip.Anderson@Meadowbrook.com>
Subject: FW: Re: Evergreen-Farmington Sanitary Drain Drainage District - Property Submission

Hi Jason,

Following up on my message this morning, Meadowbrook is seeking property quotes for our long-term Insured, Oakland County Water Resources Commissioner (WRC). WRC is forming a new drainage district (a chapter 20 drain under the Michigan Drain code of 1956) named the Evergreen-Farmington Sanitary Drain Drainage District (EFSDD).

A description of the operations of EFSDDD – located in south central Oakland County, Michigan and serving a pop of 313,000, the system includes two broad classes of assets as follows:

Phillip Anderson

From: Ruehs, Justin <Justin.Ruehs@libertymutual.com>
Sent: Monday, March 1, 2021 4:44 PM
To: James Kelley
Cc: Coleman, Tiffany Lauren; Phillip Anderson; Mlsubmit; Prusinski, Tom
Subject: External Email: Decline - Evergreen-Farmington Sanitary Drain Drainage District - Property Submission

EXTERNAL EMAIL!

James,

Thank you for the submission, the risk has cleared for Meadowbrook.

The below ground TIV, underground piping, unfortunately does not fall within our appetite in Large Property. I did check with our Inland Marine department to see if they could consider the risk. I was told they will be launching a new product that could accommodate these types of risk, however the new product is not quite yet ready.

Justin Ruehs, CPCU, ARM, AU, CIC, AAI, MBA
Underwriting Consultant II
Property and Marine

Liberty Mutual Insurance
27201 Bella Vista Pkwy, Suite 210, Warrenville, IL 60555
Office: 630-791-6994
Cell: 331-214-1109

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From: James Kelley <James.Kelley@Meadowbrook.com>
Sent: Friday, February 26, 2021 11:14 AM
To: Ruehs, Justin <Justin.Ruehs@libertymutual.com>
Cc: Phillip Anderson <Phillip.Anderson@Meadowbrook.com>; Mlsubmit <Mlsubmit@LibertyMutual.com>
Subject: {EXTERNAL} FW: Re: Evergreen-Farmington Sanitary Drain Drainage District - Property Submission

Hi Justin,

Meadowbrook is seeking property quotes for our long-term Insured, Oakland County Water Resources Commissioner (WRC). WRC is forming a new drainage district (a chapter 20 drain under the Michigan Drain code of 1956) named the Evergreen-Farmington Sanitary Drain Drainage District (EFSDD).

A description of the operations of EFSDDD – located in south central Oakland County, Michigan and serving a pop of 313,000, the system includes two broad classes of assets as follows:

- **Buildings and Facilities (vertical assets):** including pump stations, flow level monitors, flow regulators, sanitary retention tanks, linear storage and retention treatment basins. TIV \$41.1M

Phillip Anderson

From: Mikusa, Jonathan M <JMIKUSA@travelers.com>
Sent: Thursday, February 25, 2021 1:58 PM
To: Dickinson, Debbie
Cc: Kitts, Bruce E; Phillip Anderson; James Kelley; Macys, Kara M
Subject: External Email: RE: [External] FW: Re: Evergreen-Farmington Sanitary Drain Drainage District - Property Submission

EXTERNAL EMAIL!

Thanks Debbie for the heads up!

At first glance, it does not look like this would be a fit for us as the horizontal assets (underground tanks, pipes, etc) are \$1.6B and vertical assests are only \$41M.

Still I would be happy to talk about it Friday morning or Monday.

Jim,
Please just let me know what day/time works for you.

Would a mono line Boiler quote from Travelers help you?

Thanks!

Jonathan Mikusa | Managing Director | National Property
Travelers
6150 Oak Tree Blvd. | Suite 500
Independence, OH 44131
W: 216.643.2344 C: 216.816.4396 F: 855.796.4509



From: Dickinson, Debbie <DDICKIN2@travelers.com>
Sent: Thursday, February 25, 2021 12:38 PM
To: Mikusa, Jonathan M <JMIKUSA@travelers.com>
Cc: Kitts, Bruce E <BKITTS@travelers.com>; Phillip.Anderson@Meadowbrook.com; James.Kelley@Meadowbrook.com
Subject: FW: [External] FW: Re: Evergreen-Farmington Sanitary Drain Drainage District - Property Submission

Hi Jonathan:
This submission has not been cleared yet.
Please review submission from Jim at Meadowbrook and let him know if you are interested.
This type of risk is not a fit for us in Public Sector or Inland Marine.
Thanks,
Debbie

Debbie Dickinson | Territory Manager | Public Sector Services
Travelers
6150 Oak Tree Blvd, Ste 500

Phillip Anderson

From: Phillips, Robin <Robin.Phillips@Chubb.com>
Sent: Friday, March 26, 2021 3:03 PM
To: James Kelley
Cc: Phillip Anderson; Moran, Emily R; Gannon, Carin
Subject: External Email: RE: Evergreen-Farmington Sanitary Drain Drainage District (EFSDD)

EXTERNAL EMAIL!

Hi Jim,

Thank you for the follow up and I did review this one, but unfortunately as discussed I think you have a good option in place. We would not be able to compete with your pricing and we would need to put a sewer back up exclusion on the policy as well as an environmental exclusion. Please let me know if you have any questions.

Thank you,
Robin

CHUBB

Robin Phillips
AVP / Underwriter, Public Entity
2 Riverway, Suite 900
Houston, TX 77056, USA
O 713-403-3044 M 713-857-4919
E robin.phillips@chubb.com

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From: James Kelley <James.Kelley@Meadowbrook.com>
Sent: Tuesday, March 23, 2021 10:28 AM
To: Phillips, Robin <Robin.Phillips@Chubb.com>
Cc: Phillip Anderson <Phillip.Anderson@Meadowbrook.com>
Subject: [EXTERNAL] FW: Evergreen-Farmington Sanitary Drain Drainage District (EFSDD)

Hi Robin,

I wanted to touch base with you on this submission. You were going to talk a look and let me know if Chubb could be a market for the Public Entity?

Also could you send a copy of the Chubb PE form?

Thanks, Jim
248-914-4995

From: James Kelley
Sent: Wednesday, March 10, 2021 2:45 PM
To: Phillips, Robin <Robin.Phillips@Chubb.com>

Phillip Anderson

From: Cruz, Noreen <Noreen.Cruz@LibertyMutual.com>
Sent: Wednesday, August 5, 2020 11:54 AM
To: James Kelley
Cc: Kelly, Thomas J
Subject: External Email: Oakland County Water Resource Commissioner (WRC)

EXTERNAL EMAIL!
VERIFY email address. NOT JUST sender name. BE CAREFUL with Hyperlinks.

Hi Jim:

Thank you for your submission on Oakland County WRC. Tom Kelly passed it on to me as I'm the underwriter for SIR programs for our division. Unfortunately, we'll be declining the above primarily due to its size – our risk appetite is for risks serving lower populations sizes/miles, etc.

I'm also acknowledging receipt of the submission for Clinton River Resource Recovery Facility Drain District. Does that risk buy its insurance together with Oakland County WRC or would we be able to look at it as a separate opportunity?

Thank you for considering Liberty Mutual for your business and I look forward to talking with you soon!

Sincerely,

Noreen Cruz, CPCU ARM ARE CRIS
Senior Underwriting Manager
National Insurance, Public Entity & Educational Institutions
License No. 0K12889

Liberty Mutual Insurance
818 W 7th Street, Suite 850
Los Angeles, CA 90017
Direct: 213-330-2923

Read about [Resuming K-12 Operations](#) and [3 Trends Changing Misconduct Risk for Public Entities](#).

See our [Appetite Guide for Government and Education](#) risks.

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Phillip Anderson

From: Dickinson, Debbie <DDICKIN2@travelers.com>
Sent: Tuesday, March 16, 2021 2:40 PM
To: James Kelley
Cc: Phillip Anderson; Powell, Darel A; Gardner, Stephanie
Subject: External Email: RE: [External] FW: Re: Evergreen-Farmington Sanitary Drain Drainage District -Casualty

EXTERNAL EMAIL!

Hi Jim:

Travelers Public Sector is not interested in the Casualty at this time. We could take another look in 4-5 years once the district has been in operation for a while.

I hope you are doing well, take care,

Debbie

Debbie Dickinson | Territory Manager | Public Sector Services
Travelers
6150 Oak Tree Blvd, Ste 500
Independence, OH 44131
W: 216-643-2317 C: 216-533-7400
Ddickin2@travelers.com

TRAVELERS 



From: James Kelley <James.Kelley@Meadowbrook.com>
Sent: Wednesday, March 10, 2021 2:52 PM
To: Dickinson, Debbie <DDICKIN2@travelers.com>
Cc: Phillip Anderson <Phillip.Anderson@Meadowbrook.com>
Subject: [External] FW: Re: Evergreen-Farmington Sanitary Drain Drainage District - Property Submission

External Sender - Please Exercise Caution

Hi Debbie,

I wanted to follow-up and ask if Travelers might be a market for the primary Public entity liability? We did talk to Jonathan Mikusa who declined on the property.

Please let me know or give me a call at 248.914.4995.

Thanks, Jim

From: James Kelley
Sent: Thursday, February 25, 2021 10:18 AM
To: ddickin2@travelers.com
Cc: Kitts, Bruce E <BKITTS@travelers.com>; Phillip Anderson <Phillip.Anderson@Meadowbrook.com>
Subject: FW: Re: Evergreen-Farmington Sanitary Drain Drainage District - Property Submission

Hi Debbie / Bruce,

Marketing Summary *(continued)*

HIGH DEDUCTIBLE OPTIONS PRESENTED:

Property – Deductible Options:

	Option 1	Option 2	Option 3	Option 4
Deductible	1M	2M	3M	5M
Premium 25M Policy Limit	513,838	346,229	215,082	103,169
Premium 50M Policy Limit	526,338	358,729	227,582	115,669

Note: these numbers will need to be firmed up via a formal quote

Public Entity – Excess Liability – Deductible Options:

	Argo / Trident 1M/2M	Vantapro 10M	HDI 10M X 10M	Total
250k SIR Premium	130,174	103,599	54,397	288,170
500k SIR Premium	100,000	92,327	54,397	246,724

Note: these numbers will need to be firmed up via a formal quote

Pollution Liability – Deductible Options:

	Limit 5M	Limit 10M
250k SIR Premium	52,379	81,831
500k SIR Premium	48,359	71,943

Evergreen-Farmington Sanitary Drain Drainage District

4/27/2021 to 4/27/2022

First Named Insured

Evergreen-Farmington Sanitary Drain Drainage District

Mailing Address

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

Location Schedule

Please See Statement of Values Below

Statement of Values

Site ID	Location Description	Street Number	Street Name	City	Zip Code	Estimated Replacement Cost	Estimated Replacement Cost Jan 2021
75-004	12 Mile & I-696 Lift Station	34189	W Twelve Mile Road	Farmington Hills	48331	\$ 800,500	\$ 811,741
75-037	Amy Lift Station	1865	Stonycroft Lane	Bloomfield Hills	48304	\$ 4,092,500	\$ 4,149,970
75-007	Biddestone Lift Station	26430	Farmington Road	Farmington Hills	48334	\$ 1,164,500	\$ 1,180,853
75-257	Burnley (Wattles) Flow Regulator	698	Wattles Road	Bloomfield Hills	48304	\$ 69,500	\$ 70,476
75-256	Chestnut Hills (Wattles) Flow Regulator	2980	W Wattles Road	Troy	48098	\$ 145,500	\$ 147,543
75-006	Drake Lift Station	26579	Drake Road	Farmington Hills	48334	\$ 2,798,300	\$ 2,837,596
75-016	EF Overflow Chamber	20130	Eight Mile Road West	Southfield	48075	\$ 1,863,000	\$ 1,889,162
75-008	Eight Mile Lift Station	22430	Eight Mile Road West	Southfield	48034	\$ 9,742,500	\$ 9,879,311
75-207	Eight Mile Road Septage Unloading Facility	22410	Eight Mile Road West	Southfield	48034	\$ 613,500	\$ 622,115
75-267	Eldon List Station	29329	Eldon Street	Farmington Hills	48334	\$ 738,400	\$ 748,769
75-023	Inkster Road Lift Station	22500	Inkster Road	Southfield	48034	\$ 445,400	\$ 451,655
75-259	Middlebelt Storage Diversion Chamber DC-1	27680	Middlebelt Road	Farmington Hills	48331	\$ 641,000	\$ 650,001
75-258	Middlebelt Storage Flow Regulator TS-1	27050	Middlebelt Road	Farmington Hills	48331	\$ 1,381,500	\$ 1,400,900
75-260	Middlebelt Storage Flow Regulator TS-5A	29514	Middlebelt Road	Farmington Hills	48331	\$ 3,237,000	\$ 3,282,456
75-009	Morris Lake Lift Station	5100	Old Sanbargo Way	West Bloomfield Twp	48323	\$ 488,500	\$ 495,360
75-262	Quarton Dewatering Chamber	37002	Woodward Avenue	Bloomfield Hills	48304	\$ 213,500	\$ 216,498
75-261	Quarton Inlet Diversion Regulator	37347	Woodward Avenue	Bloomfield Hills	48304	\$ 303,500	\$ 307,762
75-254	Quarton Road Lift Station	1371	Quarton Road	Birmingham	48009	\$ 220,500	\$ 223,596
75-272	Southfield Diversion Chamber	1900*	West Eight Mile*	Southfield	48075	\$ 491,800	\$ 498,706
75-005	Thornbrook Lift Station	34633	Thornbrook Drive	Farmington Hills	48335	\$ 3,224,000	\$ 3,269,274
75-271	Walnut No. 1 FM Diversion Chamber	1900	S Cranbrook Road	Birmingham	48009	\$ 559,000	\$ 566,850
74-001	Walnut No. 1 Lift Station	7498	Inkster Road	West Bloomfield	48322	\$ 5,777,500	\$ 5,858,632
75-002	Walnut No. 2 Lift Station	5112/5110	Inkster Road	Bloomfield Hills	48302	\$ 990,000	\$ 1,003,902
75-003	Walnut No. 3 Lift Station	2008	Long Lake Road	Bloomfield Hills	48302	\$ 491,500	\$ 498,402
						\$ 40,492,900	\$ 41,061,531

Source: Costing is compiled from asset hierarchies and are in 2020 dollars.

Statement of Values

Interceptor Name	Cost	Engineering (design & CCA)	Admin & Legal	Contingency	Total Replacement Cost	Total Replacement Cost Dec 2020 CCI
Evergreen Farmington Interceptor	\$ 234,176,250	\$ 42,151,725	\$ 28,101,150	\$ 70,252,875	\$ 374,682,000	\$ 425,312,725
Evergreen-Farmington Relief	\$ 6,707,500	\$ 1,207,350	\$ 804,900	\$ 2,012,250	\$ 10,732,000	\$ 12,182,214
Evergreen-Farmington Contract #7	\$ 5,901,250	\$ 1,062,225	\$ 708,150	\$ 1,770,375	\$ 9,442,000	\$ 10,717,896
Evergreen Relocation at 696	\$ 6,940,000	\$ 1,249,200	\$ 832,800	\$ 2,082,000	\$ 11,104,000	\$ 12,604,482
Evergreen Mile Arms	\$ 36,384,375	\$ 6,549,188	\$ 4,366,125	\$ 10,915,313	\$ 58,215,000	\$ 66,081,585
Evergreen Relocation at 11 Mile	\$ 1,211,875	\$ 218,138	\$ 145,425	\$ 363,563	\$ 1,939,000	\$ 2,201,017
Evergreen Relocation at 10 Mile	\$ 3,028,750	\$ 545,175	\$ 363,450	\$ 908,625	\$ 4,846,000	\$ 5,500,839
Evergreen Extension #1	\$ 10,535,000	\$ 1,896,300	\$ 1,264,200	\$ 3,160,500	\$ 16,856,000	\$ 19,133,749
Evergreen Extension #2	\$ 4,751,250	\$ 855,225	\$ 570,150	\$ 1,425,375	\$ 7,602,000	\$ 8,629,257
8 Mile Rd Interceptor	\$ 21,114,375	\$ 3,800,588	\$ 2,533,725	\$ 6,334,313	\$ 33,783,000	\$ 38,348,092
Bloomfield Hills Interceptor	\$ 1,569,375	\$ 282,488	\$ 188,325	\$ 470,813	\$ 2,511,000	\$ 2,850,311
Bingham Farms Ext 1	\$ 3,704,375	\$ 666,788	\$ 444,525	\$ 1,111,313	\$ 5,927,000	\$ 6,727,915
Bingham Farms Ext 2	\$ 2,988,125	\$ 537,863	\$ 358,575	\$ 896,438	\$ 4,781,000	\$ 5,427,056
Big Beaver Sewer	\$ 953,750	\$ 171,675	\$ 114,450	\$ 286,125	\$ 1,526,000	\$ 1,732,208
Amy Relief	\$ 4,866,250	\$ 875,925	\$ 583,950	\$ 1,459,875	\$ 7,786,000	\$ 8,838,121
14 Mile-Maple Rd Arm	\$ 11,426,250	\$ 2,056,725	\$ 1,371,150	\$ 3,427,875	\$ 18,282,000	\$ 20,752,444
13 Mile Rd Arm	\$ 47,911,250	\$ 8,624,025	\$ 5,749,350	\$ 14,373,375	\$ 76,658,000	\$ 87,016,785
10 Mile Rd Arm	\$ 39,326,875	\$ 7,078,838	\$ 4,719,225	\$ 11,798,063	\$ 62,923,000	\$ 71,425,776
Morris Lake Arm	\$ 8,085,000	\$ 1,455,300	\$ 970,200	\$ 2,425,500	\$ 12,936,000	\$ 14,684,040
North Evergreen Interceptor	\$ 70,981,250	\$ 12,776,625	\$ 8,517,750	\$ 21,294,375	\$ 113,570,000	\$ 128,916,698
Grand River Arm	\$ 3,922,500	\$ 706,050	\$ 470,700	\$ 1,176,750	\$ 6,276,000	\$ 7,124,075
Grand River Arm Relief	\$ 1,034,375	\$ 186,188	\$ 124,125	\$ 310,313	\$ 1,655,000	\$ 1,878,640
Kendallwood Arm	\$ 9,658,750	\$ 1,738,575	\$ 1,159,050	\$ 2,897,625	\$ 15,454,000	\$ 17,542,297
Quarton Rd Relief	\$ 2,665,000	\$ 479,700	\$ 319,800	\$ 799,500	\$ 4,264,000	\$ 4,840,194
Rouge River-Farmington Int	\$ 44,416,875	\$ 7,995,038	\$ 5,330,025	\$ 13,325,063	\$ 71,067,000	\$ 80,670,274
South Evergreen Int	\$ 159,298,125	\$ 28,673,663	\$ 19,115,775	\$ 47,789,438	\$ 254,877,000	\$ 289,318,493
Southfield Rouge Arm	\$ 58,034,375	\$ 10,446,188	\$ 6,964,125	\$ 17,410,313	\$ 92,855,000	\$ 105,402,483
Southfield Rouge Arm North Ext	\$ 1,316,250	\$ 236,925	\$ 157,950	\$ 394,875	\$ 2,106,000	\$ 2,390,583
Southfield Rouge Arm West Branch	\$ 5,384,375	\$ 969,188	\$ 646,125	\$ 1,615,313	\$ 8,615,000	\$ 9,779,144
Tarabusi Arm	\$ 29,221,875	\$ 5,259,938	\$ 3,506,625	\$ 8,766,563	\$ 46,755,000	\$ 53,072,996
Walnut Lake Arm	\$ 28,756,250	\$ 5,176,125	\$ 3,450,750	\$ 8,626,875	\$ 46,010,000	\$ 52,227,325
Walnut Lake Relief	\$ 4,455,625	\$ 802,013	\$ 534,675	\$ 1,336,688	\$ 7,129,000	\$ 8,092,341
misc.	\$ 583,750	\$ 105,075	\$ 70,050	\$ 175,125	\$ 934,000	\$ 1,060,211
Total Gravity Main					\$ 1,394,098,000	\$ 1,582,482,264
Total Structures	\$ 12,833,125	\$ 2,309,963	\$ 1,539,975	\$ 3,849,938	\$ 20,533,000	\$ 23,307,621
Total Force main	\$ 10,168,125	\$ 1,830,263	\$ 1,220,175	\$ 3,050,438	\$ 16,269,000	\$ 18,467,428
Vertical Assets	\$ 25,308,063	\$ 4,555,451	\$ 3,036,968	\$ 7,592,419	\$ 40,492,900	\$ 41,061,531
misc. Assets*	\$ 23,906	\$ 4,303	\$ 2,869	\$ 7,172	\$ 38,250	\$ 43,419
Total EFSDS Replacement Cost	\$ 919,644,469	\$ 165,536,004	\$ 110,357,336	\$ 275,893,341	\$ 1,471,431,150	\$ 1,665,362,263

Evergreen-Farmington Sanitary Drain Drainage District

Property

4/27/2021 to 4/27/2022

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

Description of Insured Property: Evergreen-Farmington Sewage System – Oakland County, MI

Total Insured Value: \$1,665,362,263

Limits: \$50,000,000 Per Occurrence

The Company will pay no more for direct physical loss or damage in any one Occurrence than the above limit of insurance. In addition, the company will not pay for more than its proportionate share (100%) of the following Sub-Limits of insurance and Annual Aggregate Sub-limits of insurance, which are part of, and not in addition to, the limit of insurance above:

Sub-Limits:

Property Damage	\$50,000,000
Debris Removal	25% of the insured physical loss or \$5,000,000 whichever is less
Protection Service Charges	\$100,000
Claim Preparation Charges	\$50,000
Extra Expense	\$1,000,000
Expediting Expense	\$1,000,000
Earth Movement [1] – Per Occurrence	\$50,000,000
Earth Movement [1] – Aggregate	\$50,000,000
Flood – Per Occurrence	\$10,000,000
Flood – Aggregate	\$10,000,000
Named Windstorm – Per Occurrence	\$50,000,000
Named Windstorm – Aggregate	\$50,000,000
Pollution or Contamination Clean-Up	\$100,000

[1] Earth Movement is defined as:

All earthquake, landslide, mudslide, mudflow, rock fall, tsunami, tectonic or seismic sea waves, volcanic eruption, earth sinking (other than sinkhole collapse), rising, shifting, subsidence or other Earth Movement, whether observable or not observable, and whether man-made or caused by natural phenomena.

Property *(continued)*

Deductibles:

Direct Physical Loss or Damage in any One Occurrence	\$3,000,000
Earth Movement	\$3,000,000
Flood	\$3,000,000
Named Windstorm	\$3,000,000

Coinsurance: None

Forms, Endorsements, and Exclusions:

ACE0210 01/08	Nuclear, Biological, Chemical, Radiological Exclusion
ACE0670 05/11	Minimum Earned Premium 25%
ACE0973 04/20	Exclusion of Loss Due to Virus, Bacteria, or Microorganism that induces Distress, Illness, or Disease
Manuscript Endt.	Accounts Receivable \$1,000,000
Manuscript Endt.	Errors and Omissions \$5,000,000
Manuscript Endt.	Transit \$1,000,000
Manuscript Endt.	Valuable Papers and records \$1,000,000
Manuscript Endt.	Demolition and Increased Cost of Construction \$10,000,000
Manuscript Endt.	Remove Part D Property Exclusions, Item 11 – Underground Property
Manuscript Endt.	<i>Two-Year Program Option: 1% Margin Clause & 5% Rate Increase for Second Year</i>

Premium**:

Total Advance Premium	\$216,497
TRIA	10,825
Total	\$227,322

Evergreen-Farmington Sanitary Drain Drainage District

Public Entity Liability

4/27/2021 to 4/27/2022

Carrier: Argonaut Insurance Company – (Best Rating A- XIV)

GENERAL LIABILITY:

Form: ☒ Occurrence ☐ Claims Made

Limits:

\$1,000,000	<i>occurrence</i>	Per Occurrence Limit
2,000,000	<i>aggregate</i>	Aggregate Limit
2,000,000	<i>aggregate</i>	Products and Completed Operations
1,000,000	<i>occurrence</i>	Personal and Advertising Injury

PUBLIC OFFICIALS LIABILITY:

Form: ☒ Occurrence ☐ Claims Made

Limits:

\$1,000,000	<i>occurrence</i>	Errors & Omissions
2,000,000	<i>aggregate</i>	Errors & Omissions

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: Oakland County Administrators

Public Entity Liability *(continued)*

Coverage Enhancements:

- Employee Benefits Liability is included
- Waiver of Subrogation Endorsement
- Primary & Non-Contributory Endorsement
- Blanket Additional Insured
- Insured Contracts are covered as defined
- Liquor Liability for activities and events up to 5 days
- Pollution Exceptions for: Hostile Fire, Emergency Operations, Heating/Air Conditioning, Mobile Equipment, Road Treatment Chemicals, Pesticides/Herbicides, Water Treatment, Above Ground Tanks, and Water/Sewage Operations
- Water Plus 360 Endorsement

Exclusions:

GENERAL:	Asbestos, Lead, Silica, Nuclear, Nuclear Hazard, Pollution, Fungi/Bacteria, Electromagnetic Radiation, Contamination and Disease, War and Military Action, Nuclear Device Detonation, Pathogenic or Poisonous Biological or Chemical Materials, Access or Disclosure of Confidential or Personal Information and Cyber Injury
GL:	All exclusions as stated on the GL coverage form and endorsements including but not limited to: Aircraft, Eminent Domain / Inverse Condemnation, Underground Storage Tanks, Employers Liability, Land Subsidence, Property Damage, Unmanned Aircraft
POL:	All exclusions as stated on the Public Officials Liability Coverage Form and endorsements including but not limited to: Contractual Liability, Distribution of Information, Eminent Domain/Inverse Condemnation, Employment Practices, Fiduciary, Labor Disputes, Law Enforcement, Non-Monetary

Subjectivities:

- Signed Request to Bind Insurance Coverage Form
- Signed TRIA Acceptance Form

Premium:

Total Advance Premium	\$126,921
TRIA	3,253
Total	\$130,174

Evergreen-Farmington Sanitary Drain Drainage District

Excess Liability \$10M x \$1M 04/27/2021 to 04/27/2022

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

Limits:

\$10,000,000	<i>each occurrence</i>
10,000,000	<i>annual aggregate limit</i>
Excess of Underlying	<i>retention/deductible</i>

Underlying Coverages & Limits:

General Liability

\$1,000,000		Each Occurrence
2,000,000	<i>aggregate</i>	General Aggregate
2,000,000	<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
2,000,000	<i>aggregate</i>	General Aggregate
250,000	<i>SIR</i>	Each Occurrence

Defense Treatment: Inside Retention, Outside Limit

Claims Administration: Oakland County

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

Enhanced Policy Features

- Exposures are covered unless specifically excluded
- "Pay on behalf" form
- Defense costs are inside the retention and outside the limit of insurance
- Reimbursement of defense costs in excess of the SIR if the Insured is found not liable for certain acts, errors, omissions or violations.
- Rights will not be prejudiced by unintentional omissions under insurance
- Ninety-day notice of nonrenewal
- Automatic coverage for newly acquired organizations for 120 days

Supplementary Payments

Provides payment of supplementary costs associated with the investigation and resolution of claims, including:

- The cost of bail bonds, appeal bonds and release of attachment bonds
- Up to \$500 per day for time off work during the investigation and defense of a claim
- Pre and post-judgement interest

Board-Named Insured definition, which includes:

- LLCs, JVs and partnerships named in the Declarations
- Agencies, boards, districts, committees, commissions
- Directors and executive officers
- Elected or appointed officials
- Employees
- Legal heirs and representatives
- Select medical professionals
- Trustees
- Volunteers

Automatic coverage for Additional Insureds, which includes:

- Blanket Additional Insureds
- Owners of commandeered autos or equipment
- Good Samaritan coverage
- Lessors of auto or equipment
- Lessors of premises
- Mutual aid agreements
- Real estate managers
- State or government agency that issues a permit or authorization to the insured's organization

Subject to at the Time of Binding:

- Signed and Dated Terrorism Selection/Rejection Form
- Contact Information for Policyholder Claims / Risk Manager
- Signed No Known Loss Letter

Premium:	\$101,044.00
TRIA:	<u>2,555.00</u>
Total:	\$103,599.00

Evergreen-Farmington Sanitary Drain Drainage District

Excess Liability \$10M x \$10M 04/27/2021 to 04/27/2022

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

Limits:

\$10,000,000	<i>each occurrence</i>
10,000,000	<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
2,000,000	<i>aggregate</i>	General Aggregate
2,000,000	<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
2,000,000	<i>aggregate</i>	General Aggregate
250,000	<i>SIR</i>	Each Occurrence

Defense Treatment: Inside Retention, Outside Limit

Claims Administration: Oakland County

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

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
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

Premium:	\$53,122.00
TRIA:	<u>1,275.00</u>
Total:	\$54,397.00

Evergreen-Farmington Sanitary Drain Drainage District

Pollution Liability 04/27/2021 to 04/27/2022

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

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”.

Pollution Liability *(continued)*

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

Subject To:

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

Premium:	\$77,934.00	Premium
	<u>3,897.00</u>	Terrorism
	\$81,831.00	Total

Evergreen-Farmington Sanitary Drain Drainage District

4/27/2021 to 4/27/2022

*Premium Summary

POLICIES	PROPOSED 2021-2022
**Property ACE American Ins. Co. \$50M Limit \$250k SIR Rate: .01365	\$227,322
Public Entity Liability Argonaut Ins. Co. \$1M Per Occurrence Limit \$2M Aggregate Policy Limit \$2M Prod/Comp. Ops. Limit \$250k SIR	130,174
Excess Liability \$10M xs \$1M Ventapro Specialty Ins. Co. \$10M Per Occurrence Limit \$10M Aggregate Limit	103,599
Excess Liability \$10M xs \$10M HDI Global Specialty SE \$10M Per Occurrence Limit \$10M Aggregate Limit	54,397
Pollution Liability \$10M ACE American Ins. Co. \$10M Per Event Limit \$10M Aggregate Limit \$250k Deductible	81,831
TOTAL	\$597,323

*As recommended by management and staff of Oakland WRC.

**This policy contains a Two-Year Endorsement Option. If elected, the 2022-2023 policy period will automatically renew at a rate of .01433 (+5% rate increase). Estimated premium for 22-23 policy period is \$238,688.

Evergreen-Farmington Sanitary Drain Drainage District

4/27/2021 to 4/27/2022

Premium Payment Plan

<input checked="" type="checkbox"/> Paid in Full
<input checked="" type="checkbox"/> Agency Billed

This document does not amend, extend, or alter coverage afforded by the policy. For a complete understanding of any insurance you purchase, you must first read your policy, declaration page, and any endorsements and discuss them with your Meadowbrook agent. A specimen policy may also be available for your review from the insurance company. Actual policy conditions may be amended by endorsement or state law."

Meadowbrook, Inc. strives to place your insurance with financially-sound insurance carriers. There are many financial rating companies who assign credit ratings to participating insurance carriers (i.e., A.M. Best Company). These ratings are the financial rating company's independent opinion about the financial stability of the insurance carrier and, as a result, vary among insurance carriers. Not all insurance carriers choose to be rated by these services. Please be aware of this rating, or lack thereof, for the insurance carrier listed on your proposal. Meadowbrook, Inc. is not responsible for, nor guarantees, the financial solvency of any insurance carrier through which it places your insurance.

We are pleased to present this insurance proposal and thank you for the opportunity. We look forward to serving you in the future.

Evergreen-Farmington Sanitary Drain Drainage District

Recommendations 2021 - 2022

Directors and Officers Liability		
Directors and Officers Liability insurance provides financial protection for the directors and officers of your company in the event they are sued in conjunction with the performance of their duties as they relate to the company.		<input type="checkbox"/> Obtain Quote <input type="checkbox"/> Decline Coverage <input type="checkbox"/> Coverage In force

Errors and Omissions Liability		
A professional liability insurance that protects companies and individuals against claims made by clients for inadequate work or negligent actions. Errors and omissions insurance often covers both court costs and any settlements up to the amount specified on the insurance contract.		<input type="checkbox"/> Obtain Quote <input type="checkbox"/> Decline Coverage <input checked="" type="checkbox"/> Coverage In force

Fiduciary Liability		
Fiduciary liability policies protect companies, their directors, officers and employees and the plans themselves against lawsuits alleging breach of fiduciary duty and administrative errors and omissions in connection with such plans.		<input type="checkbox"/> Obtain Quote <input type="checkbox"/> Decline Coverage <input type="checkbox"/> Coverage In force

Employee Benefits Liability (EBL)		
EBL coverage protects against lawsuits alleging errors and omissions in connection with the administration (e.g. handling of records) of an employee benefit plan. However, EBL coverage almost always excludes coverage for breaches of ERISA's fiduciary duties.		<input type="checkbox"/> Obtain Quote <input type="checkbox"/> Decline Coverage <input checked="" type="checkbox"/> Coverage In force

Recommendations *(continued)*

Employee Practices Liability (EPLI)		
Employment Practices Liability Insurance provides employers with protection against many types of employment-related claims, including: wrongful termination, sexual harassment, discrimination and retaliation.		<input type="checkbox"/> Obtain Quote <input type="checkbox"/> Decline Coverage <input type="checkbox"/> Coverage In force
3rd Party Crime Coverage		
The policy provides coverage for employees while working on clients premises. A coverage of special importance to Tech companies this policy would reimburse a client under some circumstances in the event it can be proven that your employee fraudulently transferred funds or stole money, securities, or other property from such client.		<input type="checkbox"/> Obtain Quote <input type="checkbox"/> Decline Coverage <input type="checkbox"/> Coverage In force
ERISA		
ERISA bonds protect employee benefit plans from losses caused by fraud or dishonesty committed by the bonder plan fiduciaries. However, they do not afford coverage to plan fiduciaries for lawsuits brought by third parties such as plan participants or the DOL.		<input type="checkbox"/> Obtain Quote <input type="checkbox"/> Decline Coverage <input type="checkbox"/> Coverage In force
Network Security/ Cyber Liability		
Utilizing <u>on-site servers</u> coverage protects you from losses associated with unauthorized access to or theft of your data or e-business activities, computer viruses, denial of service attacks, as well as alleged unauthorized transactions.		<input type="checkbox"/> Obtain Quote <input type="checkbox"/> Decline Coverage <input type="checkbox"/> Coverage In force
Utilizing “Cloud” coverage protects you from losses associated with unauthorized access to or theft of your data or e-business activities, as well as alleged unauthorized transactions.		

Recommendations *(continued)*

Foreign Liability Coverage		
Coverage is intended to protect you and your employees while traveling outside the United States of America and Canada. It covers General Liability, Automobile Liability and Foreign Voluntary Worker's Compensation. Coverage can also extend to include personal property and blanket accident and health risk.		<input type="checkbox"/> Obtain Quote <input type="checkbox"/> Decline Coverage <input type="checkbox"/> Coverage In force
Kidnap, Ransom or Extortion		
This insurance is used to protect against loss of money, securities, or other property that results from actual, alleged, or threatened kidnapping or extortion.		<input type="checkbox"/> Obtain Quote <input type="checkbox"/> Decline Coverage <input type="checkbox"/> Coverage In force
Ocean Marine Cargo Insurance		
This policy is used to provide coverage for property you ship overseas while within the described territory and for the limits and perils declared on the form.		<input type="checkbox"/> Obtain Quote <input type="checkbox"/> Decline Coverage <input type="checkbox"/> Coverage In force
Pollution Insurance		
This policy covers a business liability arising out of a pollution incident, meaning emission of pollutants into or on land, the atmosphere, or water and causing environmental damage. The broader form of coverage also provides liability for clean-up costs. These policies are generally available on a claims-made basis.		<input type="checkbox"/> Obtain Quote <input type="checkbox"/> Decline Coverage <input checked="" type="checkbox"/> Coverage In force
Earthquake and Flood Damage to Property		
The peril of Earthquake and Flood is excluded on the standard property policy, but the coverage can be added back for an additional premium.		<input type="checkbox"/> Obtain Quote <input type="checkbox"/> Decline Coverage <input checked="" type="checkbox"/> Coverage In force

Recommendations *(continued)*

Equipment Breakdown Insurance

This insurance provides coverage for loss arising out of the operation of pressure, mechanical and electrical equipment. It may cover loss to the boiler and machinery itself and may include damage done to other property, as well as, business interruption losses.

- ☐ Obtain Quote
- ☐ Decline Coverage
- ☐ Coverage In force

Contingent Business Interruption Insurance

When included, this coverage extends your business income coverage to protect against the breakdown of covered equipment at non-owned scheduled locations that result in a decrease in revenue and extra costs of obtaining services or supplies for your business.

- ☐ Obtain Quote
- ☐ Decline Coverage
- ☐ Coverage In force

Workers Compensation Repatriation Expenses

Pays the additional expenses which may be incurred over and above normal transportation costs for returning an injured U.S. employee, including the bodies of such employees fatally injured, from anywhere in the world to the United States; provided that the injured employees return to the U.S. is, in the opinion of medical authorities, necessary.

- ☐ Obtain Quote
- ☐ Decline Coverage
- ☐ Coverage In force

Social Engineering Fraud

Social Engineering provides coverage when an employee is intentionally misled into sending or diverting money or securities based on fraudulent information that is provided to them in a written or verbal communication such as an email, fax, letter or phone call.

- ☐ Obtain Quote
- ☐ Decline Coverage
- ☐ Coverage In force

Client Signature _____

Date _____

**OAKLAND COUNTY
WATER RESOURCES
COMMISSIONER**

MEMORANDUM

TO: Jim Nash, Chairman
Evergreen Farmington SDS Drainage Board

FROM: Jason Say, Project Engineer

SUBJECT: EFSDS Walnut One Pump Station - AT&T Internet Upgrade Approval

DATE: April 27, 2021

The Walnut No. 1 Pump Station is located at 7498 Inkster in West Bloomfield Township. AT&T is currently providing internet service by DSL (Digital Subscriber Line) for transmitting digital data. This is becoming an outdated technology which has led to connection issues and routinely has been experiencing service interruptions causing risk(s) and challenges to staff work efforts.

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

Upgrading the service at Walnut No. 1 Pump Station will result in faster and more reliable internet. Please see the attached quote from AT&T. It has been recommended that we select 20Mbps to satisfy the needs of this site.

It is recommended that the Board authorize Oakland County IT & Oakland County WRC to perform the above referenced upgrade, as recommended by OCIT, OCWRC – Business Information Systems and ICS Integration Services LLC for Internet Service Upgrades for a MRC (monthly recurring cost) of \$684.86.

Quotation

Your World. Delivered.



Quotation For:
Oakland County
Attention:
Rob Messner

Quotation valid until:
Prepared by:

7/11/2021
Skip Standriff and Janine Moyer

Service Description: **AT&T Dedicated Internet (ADI) with AT&T Managed Router**

Service	Location Info	10Mbps Ethernet Access	10Mbps Internet Port	Installation	Total MRC
ADI	Oakland County Southeast Michigan	\$526.00	\$71.28	Waived	\$597.28

Service	Location Info	20Mbps Ethernet Access	20Mbps Internet Port	Installation	Total MRC
ADI	Oakland County Southeast Michigan	\$581.00	\$103.86	Waived	\$684.86

Service	Location Info	50Mbps Ethernet Access	50Mbps Internet Port	Installation	Total MRC
ADI	Oakland County Southeast Michigan	\$660.00	\$171.90	Waived	\$831.90

Service	Location Info	100Mbps Ethernet Access	100Mbps Internet Port	Installation	Total MRC
ADI	Oakland County Southeast Michigan	\$810.00	\$279.90	Waived	\$1,089.90

If you have any questions concerning this proposal, please contact me.

THANK YOU FOR YOUR BUSINESS!

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER**

MEMORANDUM

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

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

SUBJECT: Proposed Sanitary Sewer Charges for Evergreen-Farmington
Rate Year Beginning July 1, 2021

DATE: April 27, 2021

The Evergreen Farmington Sewage Disposal System is being transitioned to the Evergreen-Farmington Sanitary Drain (EFSD) formed by petition under Chapter 20 of the Drain Code. As such, the Drain Board will be asked to annually review and approve the proposed budget and sewer charges for each of the fifteen customer communities of the EFSD.

The attached monthly charges were presented to the EFSD customer communities on April 15, 2021.

The proposed budget is attached in Exhibit A. Because of increases in operating expenses, the total annual charge to communities will increase 3.0% to \$48,746,550.

The charges specific to each community for EFSD service are included in Exhibit B.

The proposed major maintenance and capital improvement plan is included in Exhibit C.

Recommended Action: Approve the proposed operating budget (Exhibit A), cost allocation (Exhibit B), and the Capital Improvement Program (Exhibit C) for the rate year beginning July 1, 2021, as presented.

EXHIBIT A

PROPOSED OPERATING BUDGET AND SEWER CHARGES

Evergreen Farmington Sewage Disposal System

58410

Financial Summary

	2020 Actual	2021 Budget	2022 Forecast	Inc / (Dec)	% Variance
<u>Operating Revenues</u>					
Operating Rate Revenue	\$ 39,291,757.47	\$ 39,608,100.00	\$ 40,815,790.00	\$ 1,207,690.00	3.0%
Operating Non-Rate Revenue	1,538,004.33	756,770.00	728,600.00	(28,170.00)	-3.7%
Operating Revenues	<u>\$ 40,829,761.80</u>	<u>\$ 40,364,870.00</u>	<u>\$ 41,544,390.00</u>	<u>\$ 1,179,520.00</u>	<u>2.9%</u>
<u>Operating Expenses</u>					
Sewage Treatment	\$ 34,984,949.06	\$ 35,329,200.00	\$ 35,766,000.00	\$ 436,800.00	1.2%
Sewer System Maintenance	505,230.96	463,680.00	547,600.00	83,920.00	18.1%
Sewer System Engineering	270,882.24	230,290.00	293,110.00	62,820.00	27.3%
Water Purchases	-	-	-	-	
Water Maintenance Unit	-	-	-	-	
Water Systems Engineering	-	-	-	-	
Septage Unloading Facility	330,824.07	336,100.00	344,900.00	8,800.00	2.6%
Pump Maintenance Unit	1,130,271.14	1,118,860.00	1,201,250.00	82,390.00	7.4%
Systems Control Unit	1,742,209.25	1,464,260.00	1,837,170.00	372,910.00	25.5%
Plan Review and Permitting	130,004.49	61,090.00	93,880.00	32,790.00	53.7%
Inspection	7,050.59	12,940.00	7,590.00	(5,350.00)	-41.3%
IPP	-	-	-	-	
Laboratory	-	740.00	-	(740.00)	-100.0%
Mapping Unit	21,581.32	62,000.00	23,700.00	(38,300.00)	-61.8%
Miss Dig	211.89	320.00	230.00	(90.00)	-28.1%
Billing Services Unit	-	-	-	-	
General and Administrative	1,319,597.69	1,285,390.00	1,428,960.00	143,570.00	11.2%
Total Operating Expenses	<u>40,442,812.70</u>	<u>40,364,870.00</u>	<u>41,544,390.00</u>	<u>1,179,520.00</u>	<u>2.9%</u>
Net Income	<u>\$ 386,949.10</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	
Depreciation	(854,645.73)	(807,220.00)	(852,990.00)	(45,770.00)	5.7%
<u>Reserves</u>					
Non-Operating Revenue	\$ 1,001,502.33	\$ 1,247,760.00	\$ 1,250,250.00	\$ 2,490.00	0.2%
Non-Operating Expense	2,930,292.42	(291,400.00)	(256,150.00)	35,250.00	-12.1%
Major Maintenance Reserve Revenue	1,321,417.47	1,350,930.00	1,391,460.00	40,530.00	3.0%
Major Maintenance Reserve Expense	(461,779.98)	(2,585,120.00)	(2,230,520.00)	354,600.00	-13.7%
Emergency Reserve Revenue	-	-	-	-	
Emergency Reserve Expense	(25,623.84)	-	-	-	
Capital Reserve Revenue	4,668,750.01	5,135,000.00	6,389,050.00	1,254,050.00	24.4%
Capital Reserve Expense	(3,951,151.75)	(5,650,500.00)	(8,020,750.00)	(2,370,250.00)	41.9%
Change in Net Assets	<u>\$ 5,015,710.03</u>	<u>\$ (1,600,550.00)</u>	<u>\$ (2,329,650.00)</u>	<u>\$ (729,100.00)</u>	<u>45.6%</u>
<u>Rate Revenue</u>					
Revenue Requirements:					
Operating Expense	\$ 40,442,812.70	\$ 40,364,870.00	\$ 41,544,390.00	\$ 1,179,520.00	2.9%
Non-Operating	1,001,502.33	1,247,760.00	1,250,250.00	2,490.00	0.2%
Major Maintenance	1,321,417.47	1,350,930.00	1,391,460.00	40,530.00	3.0%
Emergency Maintenance	-	-	-	-	
Capital	4,668,750.01	5,135,000.00	6,389,050.00	1,254,050.00	24.4%
Total Revenue Requirements	<u>\$ 47,434,482.51</u>	<u>\$ 48,098,560.00</u>	<u>\$ 50,575,150.00</u>	<u>\$ 2,476,590.00</u>	<u>5.1%</u>
Non-Rate Revenue	<u>\$ (1,653,849.16)</u>	<u>\$ (756,770.00)</u>	<u>\$ (1,828,600.00)</u>	<u>\$ (1,071,830.00)</u>	<u>141.6%</u>
Rate Required Revenue	<u>\$ 45,780,633.35</u>	<u>\$ 47,341,790.00</u>	<u>\$ 48,746,550.00</u>	<u>\$ 1,404,760.00</u>	<u>3.0%</u>

Evergreen Farmington Sewage Disposal System, GLWA FY 2021-22

Monthly Charge Breakdown

GLWA FY 2021-22		
GLWA Fixed Charge	\$	35,766,000.00
OCWRC Fixed Charge ⁽¹⁾		5,778,390.00
Non-Operating		1,250,250.00
Major Maintenance Reserve		1,391,460.00
Emergency Reserve		-
Capital Improvement Reserve		5,289,050.00
Misc Revenue		(728,600.00)
<hr/>		
Total Charge:		48,746,550.00

	GLWA FY 2021-22 Annual Charge	GLWA FY 2021-22 Monthly Charge
Auburn Hills	\$ 370,474	\$ 30,872.83
Beverly Hills	2,156,060	179,671.67
Bingham Farms	289,066	24,088.83
Birmingham	3,486,840	290,570.01
Bloomfield Hills	1,194,779	99,564.92
Bloomfield Township	8,423,404	701,950.33
Franklin	250,557	20,879.75
Lathrup Village	1,056,825	88,068.75
Southfield	9,522,638	793,553.16
Troy	2,037,118	169,759.83
Farmington	373,399	31,116.59
Farmington Hills	11,194,157	932,846.42
Keego Harbor	415,809	34,650.75
Orchard Lake Village	434,332	36,194.33
West Bloomfield Township	6,183,988	515,332.33
Acacia Park RTB	399,235	33,269.58
Birmingham RTB	414,345	34,528.75
Bloomfield RTB	543,524	45,293.67
<hr/>		
Total	\$ 48,746,550	\$ 4,062,212.50

Evergreen Farmington Sewage Disposal System, GLWA FY 2021-22
Share & Monthly Charge Comparison

	GLWA FY 2020-21		GLWA FY 2021-22		% Change Mthly Charge
	Share % of System	Monthly Charge	Share % of System	Monthly Charge	
Auburn Hills	0.760%	\$ 29,983.17	0.760%	\$ 30,872.83	3.0%
Beverly Hills	4.390%	173,192.17	4.423%	179,671.67	3.7%
Bingham Farms	0.599%	23,631.50	0.593%	24,088.83	1.9%
Birmingham	6.950%	274,187.91	7.153%	290,570.01	6.0%
Bloomfield Hills	2.378%	93,815.58	2.451%	99,564.92	6.1%
Bloomfield Township	16.847%	664,639.15	17.280%	701,950.33	5.6%
Franklin	0.511%	20,159.66	0.514%	20,879.75	3.6%
Lathrup Village	2.174%	85,767.51	2.168%	88,068.75	2.7%
Southfield	20.762%	819,091.91	19.535%	793,553.16	-3.1%
Troy	4.120%	162,540.18	4.179%	169,759.83	4.4%
Farmington	0.781%	30,811.58	0.766%	31,116.59	1.0%
Farmington Hills	22.537%	889,118.32	22.964%	932,846.42	4.9%
Keego Harbor	0.835%	32,942.00	0.853%	34,650.75	5.2%
Orchard Lake Village	0.878%	34,638.34	0.891%	36,194.33	4.5%
West Bloomfield Township	12.752%	503,085.42	12.686%	515,332.33	2.4%
Acacia Park RTB	0.810%	31,955.84	0.819%	33,269.58	4.1%
Birmingham RTB	0.847%	33,415.26	0.850%	34,528.75	3.3%
Bloomfield RTB	<u>1.069%</u>	<u>42,173.67</u>	<u>1.115%</u>	<u>45,293.67</u>	<u>7.4%</u>
Total	100.00%	\$ 3,945,149.17	100.00%	\$ 4,062,212.50	3.0%

Charges have been rounded

**EVERGREEN FARMINGTON SEWAGE DISPOSAL SYSTEM
SCHEDULE OF RATES AND CHARGES
EFFECTIVE JULY 1, 2021**

1. Wastewater Disposal Charge

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

	GLWA FY 2021-22 Monthly Charge
Auburn Hills	\$ 30,872.83
Beverly Hills	179,671.67
Bingham Farms	24,088.83
Birmingham	290,570.01
Bloomfield Hills	99,564.92
Bloomfield Township	701,950.33
Franklin	20,879.75
Lathrup Village	88,068.75
Southfield	793,553.16
Troy	169,759.83
Farmington	31,116.59
Farmington Hills	932,846.42
Keego Harbor	34,650.75
Orchard Lake Village	36,194.33
West Bloomfield Township	515,332.33
Acacia Park RTB	33,269.58
Birmingham RTB	34,528.75
Bloomfield RTB	<u>45,293.67</u>
Total:	\$ 4,062,212.50

2. Industrial Surcharge

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

Effective July 1, 2021

INDUSTRIAL SURCHARGE RATE, PER EXCESS POUND	GLWA FY 2021-22 \$/LB
Biochemical Oxygen Demand (BOD) in excess of 275 mg/l	\$0.347
Total Suspended Solids (TSS) in excess of 350 mg/l	0.476
Phosphorus (PHOS) in excess of 12 mg/l.	6.368
Fats, Oil, & Grease (FOG) in excess of 100 mg/l	0.111

3. Industrial Waste Control Charge (IWC)

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

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

Effective July 1, 2021

METER SIZE	GLWA FY 2021-22 MONTHLY IWC CHARGE
5/8"	\$3.54
3/4"	5.31
1"	8.85
1 1/2"	19.47
2"	28.32
3"	51.33
4"	70.80
6"	106.20
8"	177.00
10"	247.80
12"	283.20
14"	354.00
16"	424.80
18"	495.60

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

4. Penalty

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

EXHIBIT B

COST ALLOCATION/ SHARES

EXHIBIT B

Evergreen-Farmington Sanitary Drain Fiscal Year 2022 Proposed Cost Allocation

Community Shares	Background: Calculated Shares for Individual Years						Proposed Fiscal Year 2022 Shares
	RY 2014/15	RY 2015/16	RY 2016/17	RY 2017/18	RY 2018/19	RY 2019/20	
Auburn Hills	0.721%	0.740%	0.802%	0.810%	0.726%	0.724%	0.760%
Beverly Hills	4.073%	4.227%	4.445%	4.205%	4.998%	4.239%	4.423%
Bingham Farms	0.566%	0.610%	0.578%	0.658%	0.585%	0.531%	0.593%
Birmingham	6.460%	6.503%	6.815%	7.035%	7.939%	7.472%	7.153%
Bloomfield Hills	2.028%	2.311%	2.549%	2.534%	2.468%	2.396%	2.452%
Bloomfield Township	16.327%	17.840%	16.112%	16.518%	17.437%	18.492%	17.280%
Franklin	0.521%	0.523%	0.492%	0.510%	0.508%	0.539%	0.514%
Lathrup Village	2.037%	2.079%	2.313%	2.194%	2.246%	2.009%	2.168%
Southfield	24.608%	20.131%	20.672%	20.208%	18.193%	18.472%	19.535%
Troy	4.071%	4.217%	4.158%	4.137%	4.017%	4.366%	4.179%
Farmington	0.804%	0.819%	0.696%	0.770%	0.815%	0.729%	0.766%
Farmington Hills	20.927%	22.990%	22.913%	22.660%	23.197%	23.061%	22.964%
Keego Harbor	0.780%	0.831%	0.888%	0.881%	0.793%	0.869%	0.853%
Orchard Lake Village	0.813%	0.949%	0.928%	0.946%	0.757%	0.875%	0.891%
West Bloomfield Township	13.146%	13.102%	12.525%	13.105%	11.883%	12.817%	12.687%
APRTB Stormwater	0.619%	0.638%	0.926%	0.832%	1.033%	0.664%	0.819%
BirmRTB Stormwater	0.729%	0.733%	0.979%	0.799%	0.995%	0.743%	0.850%
BVRTB Stormwater	0.773%	0.756%	1.209%	1.198%	1.410%	1.003%	1.115%
Total	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%
		Basis of Proposed Shares					

EXHIBIT C

MAJOR MAINTENANCE AND CAPITAL IMPROVEMENT PLAN

Major Maintenance Long Range Plan

Expense Description*	FY2022	FY2023	FY2024	FY2025	FY2026	5 Year Total
EFSDS CCTV Program	\$ 700,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 4,700,000
EFSDS SMU Planned Major Maintenance	\$ 450,000	\$ 750,000	\$ -	\$ -	\$ 385,000	\$ 1,585,000
EFSDS Manhole Lining	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 2,500,000
EFSDS Pipe Grouting	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 500,000
EFSDS PowerPlan Support Cost	\$ 185,520	\$ 191,090	\$ 196,820	\$ 202,720	\$ 208,800	\$ 984,950
EFSDS RTB Planned Major Maintenance		\$ 20,000	\$ 20,000	\$ 222,000	\$ 20,000	\$ 282,000
8 Mile PS Improvements	\$ 70,000	\$ 140,000	\$ 70,000	\$ -	\$ -	\$ 280,000
Amy PS Improvements	\$ 25,000	\$ 55,000	\$ 25,000		\$ -	\$ 105,000
Drake PS Improvements	\$ 85,000	\$ -	\$ 23,000		\$ -	\$ 108,000
Springdale LM Improvements	\$ -	\$ -	\$ -	\$ -	\$ 33,000	\$ 33,000
Thornbrook PS Improvements	\$ 35,000	\$ 70,000	\$ 35,000	\$ -	\$ 25,000	\$ 165,000
Walnut Lk 1 PS Improvements	\$ 80,000	\$ 20,000	\$ 69,000	\$ -	\$ 33,000	\$ 202,000
Total	\$ 2,230,520	\$ 2,846,090	\$ 2,038,820	\$ 2,024,720	\$ 2,304,800	\$ 11,444,950

Capital Improvement Plan

Expense Description	FY2022	FY2023	FY2024	FY2025	FY2026	5 Year Total
EFSDS 14 Mile & Maple Rd Interceptor Lining - Area 4		\$ 20,000				\$ 20,000
EFSDS NEI Lining - Area 15		\$ 45,000				\$ 45,000
EFSDS Southfield Rouge Arm Lining - Area 7	\$ 642,000					\$ 642,000
EFSDS Tarabusi Industrial Arm Lining - Area 19	\$ 455,000					\$ 455,000
EFSDS Walnut Lk Arm - Area 18		\$ 342,000				\$ 342,000
EFSDS Walnut Lk Interceptor Repair - Area 14		\$ 665,000				\$ 665,000
LTCAP Phase 2 Engineering	\$ -	\$ 300,000				\$ 300,000
EFSDS Pipe Lining/Replacement	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 50,000	\$ 2,050,000
EFSDS WRC SCADA	\$ 217,500					\$ 217,500
EFSDS Sewage Meter Replacements	\$ 10,000	\$ 10,000	\$ 1,000,000	\$ 80,000		\$ 1,100,000
12 Mile & I-696 PS Rehabilitation	\$ 1,550,000	\$ -	\$ -	\$ -	\$ -	\$ 1,550,000
8 Mile PS Improvements	\$ 325,000	\$ 410,000	\$ 713,000	\$ 60,000	\$ 25,000	\$ 1,533,000
Amy PS Improvements	\$ 18,000	\$ 18,000	\$ 5,000	\$ 5	\$ 134,000	\$ 175,005
Biddestone PS Improvements	\$ 155,000	\$ 1,205,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 1,375,000
Burnley LM Improvements	\$ -	\$ 28,000	\$ 6,000	\$ -	\$ -	\$ 34,000
Chestnut Hill Regulator Improvements	\$ -	\$ 54,000	\$ 6,000	\$ -	\$ -	\$ 60,000
Cranbrook North LM Improvements	\$ 5,000	\$ -	\$ 7,000	\$ -	\$ -	\$ 12,000
Cranbrook South LM Improvements	\$ -	\$ 5,000	\$ 7,000	\$ -	\$ -	\$ 12,000
Drake PS Improvements	\$ 135,000	\$ 134,000	\$ 12,000	\$ 88,000	\$ 87,000	\$ 456,000
EF Overflow Improvements	\$ 2,000	\$ -	\$ 63,000	\$ -	\$ -	\$ 65,000
Inkster PS Improvements	\$ -	\$ 159,000	\$ 741,000	\$ -	\$ -	\$ 900,000
Lathrup LM Improvements	\$ -	\$ -	\$ -	\$ 36,000	\$ -	\$ 36,000
Middlebelt Storage Tunnel Improvements		\$ 10,000	\$ -	\$ -	\$ -	\$ 10,000
Middlebelt, N of 14 Mile LM Improvements	\$ 64,000	\$ -	\$ -	\$ -	\$ -	\$ 64,000
Middlebelt, S of 13 Mile LM Improvements	\$ -	\$ 71,000	\$ -	\$ -	\$ -	\$ 71,000
Morris Lk PS Improvements	\$ -	\$ -	\$ 170,000	\$ 20,000	\$ -	\$ 190,000
Springdale LM Improvements	\$ -	\$ -	\$ -	\$ -	\$ 6,000	\$ 6,000
Thornbrook PS Improvements	\$ 82,000	\$ 139,000	\$ 21,000	\$ 15,000	\$ 38,000	\$ 295,000
Walnut Lk 1 PS Improvements	\$ 98,250	\$ 431,250	\$ 50,000	\$ 343,000	\$ 132,000	\$ 1,054,500
Walnut Lk 2 PS Improvements	\$ 1,950,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 1,974,000
Walnut Lk 3 PS Improvements	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000		\$ 24,000
Total	\$ 8,020,750	\$ 6,368,250	\$ 4,318,000	\$ 1,239,005	\$ 489,000	\$ 20,435,005

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

TO: Jim Nash, Chairman – Evergreen Farmington Sanitary Drain

FROM: Evans Bantios, P.E. – Civil Engineer III

SUBJECT: Lathrup Village Sanitary Retention Tank Improvements

DATE: April 27, 2021

At the request of both the Michigan Department of Environment, Great Lakes, and Energy (EGLE) and the City of Lathrup Village, the Oakland County Water Resources Commissioner (OCWRC) assumed operations and maintenance of the Lathrup Village Sanitary Retention Tank (LVSRT) in the summer of 2019. Through an extensive hydraulic modeling effort, a plan has been developed to modify the overall operation of the SRT in order to optimize flow into the Evergreen Interceptor. The Lathrup Village Sanitary Retention Tank Improvement project will allow for increased operating levels in the Evergreen Interceptor as stated in the Petition. This increase in the Evergreen Interceptor operating levels will allow more flow to pass through the Evergreen Farmington Sanitary Drain (EFSD) system. The improvements to the LVSRT will also allow Lathrup Village to discharge their contract town outlet capacity during these times when the level in the Evergreen Interceptor is elevated.

Hubbell, Roth & Clark, Inc. (HRC) has been selected to prepare plans and contract documents for the LVSRT Improvements Project as they are the engineering firm who designed the original facility, which was constructed in the early 1990's. For this project, they conducted a condition assessment of the facility in August of 2020 and based on the condition assessment, the project includes the following major work items:

- Electrical and mechanical improvement to the SRT heating, influent pumping and dewatering pumping
- Structural restoration to the roof and walls
- Updated instrumentation and controls
- SCADA Improvements
- Piping and valve system changes (both size and operational control)
- Revised operational changes

The attached Engineering Services Agreement provides greater detail of the improvements to the LVSRT facility.

In addition, HRC will assist WRC during the bidding phase. These tasks will include but are not limited to conducting a prebid meeting and issuing meeting minutes; responding to contractor questions during the bidding process; preparing necessary addenda; assisting WRC staff in reviewing bids; bid tabulations; verifying references and providing a recommendation of award letter.

A separate agreement will be presented to the Board discussing project cost allocations between Lathrup Village and EFSD for the proposed improvements.

Recommendation: Approve the attached Engineering Services Agreement for the design and bidding phase of the LVSRT Improvements project for an amount not to exceed of \$164,000.

February 26, 2021

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

Attn: Mr. Gary Nigro, P.E., Chief Engineer

Re: Design Engineering Services Proposal
Lathrup Village Sanitary Retention Tank Improvements

HRC Job No. 20200324

Dear Mr. Nigro:

Thank you for the opportunity for Hubbell, Roth & Clark, Inc. (HRC) to submit this proposal for design services related to improvements and operational changes at the Lathrup Village Sanitary Retention Tank (LVSRT). As you know, HRC designed and oversaw construction of this facility in the early 1990s, and recently performed an operations and condition evaluation of the facility.

BACKGROUND

The Water Resources Commissioner for Oakland County (WRC) has taken over operation and maintenance of the facility from the Village and plans to modify the overall facility operation to optimize flow within the Evergreen-Farmington Sanitary Disposal System (EFSDS). The EFSDS is also operated and maintained by the OCWRC. The LVSRT outlets into the EFSDS and was originally designed to ensure the local Lathrup Village Sanitary System would not exceed its town outlet capacity during wet weather events by regulating and storing excess flows.

These proposed changes will improve facility operation, minimize potential of sanitary sewer overflows in the Lathrup Village Sanitary System and extend the service life of the facility.

SCOPE OF SERVICES

We have based our scope of services on recent emails, conversations and HRC's technical memorandum originally submitted to OCWRC on September 9th and completed on November 16, 2021. The proposed changes are part of the WRC LTCAP Phase I Evaluation.

HRC will prepare biddable plans and specification documents to be issued by the OCWRC. The project will include the following major work items (refer to HRC technical memorandum for additional detail):

1. Electrical and Mechanical equipment improvements to the SRT heating, influent pumping and dewatering systems
2. Structural restoration to roof and walls
3. Updated instrumentation and controls
4. SCADA Improvements
5. Piping and valve system changes (both size and operational control)
6. Revised operational changes

7. Meetings – facilitate or assist OCWRC
 - i. Up to 2 design related meetings with OCWRC Staff
 - ii. 1 meeting to review the project with EGLE
 - iii. 1 meeting to review project with the EFSDS Communities
8. Permits - assist OCWRC with filing and coordination
 - a. EGLE Part 41
 - b. Local

HRC estimates the level of effort required for the engineering design services noted above as follows:

Task	Estimated Hours	Budget
Phase 1 - Design Engineering	804	\$102,420
Phase 1 – Subconsultants (ICS & ASI)	240	\$35,000
Phase 2 – Bidding		TBD
Phase 3 - Construction Engineering		TBD
Total	1044	\$137,420

HRC will invoice the OCWRC on an hourly basis, up to the limits shown above. A breakdown of our estimated design hours is attached. These amounts will not be exceeded without your authorization. HRC is prepared to commence on the design engineering services on this project upon authorization and anticipate approximately 7 months to complete the design engineering task.

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

Very truly yours,

HUBBELL, ROTH & CLARK, INC.



Thomas G. Maxwell, P.E.
Sr. Associate

Encls.

Pc: OCWRC; E. Bantios
HRC; D. Mitchell, J. Bergsma

If this proposal is accepted, please sign and return a scanned copy of this proposal which will serve as our formal authorization to proceed.

Please sign the following to indicate acceptance of the scope of work and proposed fees.

ACCEPTED BY: _____

TITLE: _____

DATE: _____

3. Acacia Park CSO

AGENDA

DRAINAGE BOARD FOR THE ACACIA PARK CSO DRAIN

April 27, 2021

1. Call meeting to order
2. Approve minutes of meeting of March 23, 2021
3. Public Comments
4. Present Memorandum from Jason Say, P.E., dated April 27, 2021, requesting the Board to authorize Oakland County IT and Oakland County WRC to perform for internet service upgrades for a monthly recurring cost of \$684.86
5. Present Memorandum from Gary Nigro, P.E., Chief Engineer, dated April 27, 2021, requesting the Board approve the Drainage District major maintenance and capital improvement projects for a not-to-exceed amount of \$377,500
6. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$1,006,890
7. Present request for Board approval of payment of invoices and reimbursement of the Drain Revolving Fund in the amount of \$5,952.97
8. Present request for reimbursement of the Evergreen Farmington Sewage Disposal System Fund in the amount of \$31,955.84
9. Other business
10. Approve pro rata payment to Drainage Board members
11. Adjourn

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

March 23, 2021

A meeting of the Drainage Board for the Acacia Park CSO Drain was held at 2:00 p.m. on the 23rd of March, 2021. The meeting was conducted electronically via GoToMeeting in accordance with PA 267 of 1976, as amended, and/or as otherwise provided by law.

The meeting was called to order by the Chairperson. The Board indicated where they were physically located at the time of the meeting as follows:

PRESENT: Jim Nash, Oakland County Water Resources Commissioner, participating from Farmington Hills, Michigan.

David Woodward, Chairperson of the Oakland County Board of Commissioners, participating from Royal Oak, Michigan.

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners, participating from Novi, Michigan.

ABSENT: None.

Minutes of the meeting held February 23, 2021 were presented for consideration. It was moved by Markham, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3
Nays - 0

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

A request for approval of payment of invoices and reimbursement of the Drain Revolving Fund in the amount of \$9,307.89 (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 \$9,307.89.

ADOPTED: Yeas - 3
Nays - 0

A request for reimbursement of the Evergreen Farmington Fund in the amount of \$31,955.84 (as attached) was presented. It was moved by Markham, supported by Woodward, to reimburse the Evergreen Farmington Fund in the amount of \$31,955.84.

ADOPTED: Yeas - 3
Nays - 0

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

ADOPTED: Yeas - 3
Nays - 0

There being no further business, the meeting was adjourned.



Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the Acacia Park CSO Drain, Oakland County, Michigan, held on the 23rd day of March, 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 Acacia Park CSO Drain Drainage District.



Jim Nash, Chairperson

Dated: March 30, 2021

**OAKLAND COUNTY
WATER RESOURCES
COMMISSIONER**

MEMORANDUM

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

FROM: Jason Say, Project Engineer

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

DATE: April 27, 2021

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

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

Upgrading the service at Acacia Park will result in faster and more reliable internet. Please see the attached quote from AT&T. It has been recommended that we select 20Mbps to satisfy the needs of this site.

It is recommended that the Board authorize Oakland County IT & Oakland County WRC to perform the above referenced upgrade, as recommended by OCIT, OCWRC – Business Information Systems and ICS Integration Services LLC for Internet Service Upgrades for a MRC (monthly recurring cost) of \$684.86.

Quotation

Your World. Delivered.



Quotation For:
Oakland County
Attention:
Rob Messner

Quotation valid until:
Prepared by:

7/11/2021
Skip Standriff and Janine Moyer

Service Description: **AT&T Dedicated Internet (ADI) with AT&T Managed Router**

Service	Location Info	10Mbps Ethernet Access	10Mbps Internet Port	Installation	Total MRC
ADI	Oakland County Southeast Michigan	\$526.00	\$71.28	Waived	\$597.28

Service	Location Info	20Mbps Ethernet Access	20Mbps Internet Port	Installation	Total MRC
ADI	Oakland County Southeast Michigan	\$581.00	\$103.86	Waived	\$684.86

Service	Location Info	50Mbps Ethernet Access	50Mbps Internet Port	Installation	Total MRC
ADI	Oakland County Southeast Michigan	\$660.00	\$171.90	Waived	\$831.90

Service	Location Info	100Mbps Ethernet Access	100Mbps Internet Port	Installation	Total MRC
ADI	Oakland County Southeast Michigan	\$810.00	\$279.90	Waived	\$1,089.90

If you have any questions concerning this proposal, please contact me.

THANK YOU FOR YOUR BUSINESS!

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER**
MEMORANDUM

TO: Jim Nash, Chairman
Acacia Park CSO Drainage Board

FROM: Gary Nigro, P.E., Chief Engineer

SUBJECT: Acacia Park RTB Projects for Approval

DATE: April 27, 2021

As a goal of our asset management program, WRC staff has completed a significant inventory and condition assessment project for the Acacia Park CSO Drain collection system and retention treatment basin. Recommendations for rehabilitation or replacement of assets were produced from our asset management software which were then reviewed by staff engineers and operations supervisors in order to select the appropriate intervention.

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

Project Name	Major Maintenance or Capital Improvement	Cost Estimate
Rebuild Flushing Piping and Valves	MM	\$ 15,000
Rehab Control Building Interior/Exterior	MM	\$ 150,000
Area Drainage and Bldg Cement Repair	MM	\$ 50,000
Retaining Wall	MM	\$ 25,000
Chlorine Tank Reline	MM	\$ 35,000
Chlorine Feed Pump Rebuilds	MM	\$ 7,500
Replace 3 Level Sensors Influent	CIP	\$ 15,000
Replace 3 Level Sensors Effluent	CIP	\$ 15,000
Replace Sluice Gate Actuator	CIP	\$ 25,000
TRC Minimization Effluent Analyzer Improvements	CIP	\$ 10,000
Replace PLC Batch Controller & Flow Meter for Flushing System	CIP	\$ 30,000
Total:		\$ 377,500

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

Board Action Requested:

It is recommended that the Board approve the Acacia Park Retention Treatment Basin major maintenance and capital improvement projects listed above for the not to exceed amount of \$377,500.

OAKLAND COUNTY WATER RESOURCES COMMISSIONER

MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE

Acacia Park CSO Drain

Assessment for the following year of expenses: July 1, 2021 through June 30, 2022

Last Assessment (\$): \$ 936,860.00
Date last assessment approved: 4/28/20

Unreserved and Undesignated Fund Balance as of 2/28/21	\$ (104,189.88)
Capital Improvement Reserves as of 2/28/21	571,965.31
Major Maintenance Reserves as of 2/28/21	252,746.83
CSO Equipment Reserves (MDEQ) as of 2/28/21	350,000.00
Reserves for Encumbrances as of 2/28/21	0.00
Total Fund Balance at 2/28/2021	<u>\$ 1,070,522.26</u>

OPERATIONS, MAINTENANCE & REPLACEMENT BUDGET for July 1, 2021 through June 30, 2022

Operating Expenses

Sewage Treatment	\$ 399,230.00
Sewer System Maintenance	\$ 41,600.00
Sewer System Engineering	\$ 36,790.00
Pump Maintenance Unit	\$ 245,340.00
Systems Control Unit	\$ 15,550.00
Laboratory	\$ 1,850.00
Mapping Unit	\$ 5,140.00
General and Administrative	\$ 52,670.00
Total Operating Expenses	\$ 798,170.00

Revenue Requirements

Operating Expense	\$ 798,170.00
Major Maintenance	\$ 53,800.00
Capital	\$ 175,000.00
Total Revenue Requirements	\$ 1,026,970.00
Non-Rate Revenue	\$ (20,080.00)
Rate Required Revenue	\$ 1,006,890.00

Recommended July 1, 2021 through June 30, 2022 assessment:

Total Anticipated Expenses for July 1, 2021 - June 30, 2022	\$ 1,006,890.00
Total Anticipated Funds Needed	<u>\$ 1,006,890.00</u>

TOTAL RECOMMENDED ASSESSMENT

\$ 1,006,890.00

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

Prepared by: Leo Lease
Leo Lease - Senior Financial Analyst

Date: 4/14/2021

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

Date: April 27, 2021

SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE OF THE ACACIA PARK CSO DRAIN

Public Corporation	Percentage of Apportionment	Total Amount of Assessment
Village of Beverly Hills	68.16%	\$ 686,296.22
City of Birmingham	28.83%	\$ 290,286.39
County of Oakland	3.01%	\$ 30,307.39
Total	100.00%	\$ 1,006,890.00

Assessment Due Date: To be collected on the following quarters: 9/30/2021, 12/31/2021, 3/31/2022 and 6/30/2022.

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Acacia Park CSO Drain for the period July 1, 2021 through June 30, 2022 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

Jim Nash
Chairman of the Drainage Board for the Acacia Park CSO Drain

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

Jim Nash
Chairman of the Drainage Board for the Acacia Park CSO Drain

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

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting




DATE: April 27, 2021

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 April 16, 2021

G/L Date	Ref No.	Paid To	For	Amount
	TBP	Great Lakes Pump & Supply Co	Invoice # 14533 - Contracted Services	2,253.41
	V # 1517765	ICS Integration Services LLC	Invoice # 1334 - Contracted Services	3,699.56
			Total	<u>\$ 5,952.97</u>

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

FROM: Shawn Phelps, Chief of Fiscal Services 
OCWRC Accounting

DATE: April 27, 2021

SUBJECT: Request for Reimbursement of Evergreen Farmington Fund

The following is a detail of charges paid from the Evergreen Farmington Fund
for the period ending April 16, 2021.

<u>Date</u>	<u>Ref No.</u>	<u>For</u>	<u>Amount</u>
03/31/21	JE# 354652	March 2021 Storm Water Flow Charges RTB Capacity Use (O & M Credit)	\$31,955.84
			<u>\$31,955.84</u>

4. Birmingham CSO

AGENDA

DRAINAGE BOARD FOR THE BIRMINGHAM CSO DRAIN

March 23, 2021

1. Call meeting to order
2. Approve minutes of meeting of February 23, 2021
3. Public Comments
4. Present Memorandum from Jason Say, P.E., dated April 27, 2021, requesting the Board to authorize Oakland County IT and Oakland County WRC to perform for internet service upgrades for a monthly recurring cost of \$684.86
5. Present Memorandum from Gary Nigro, P.E., Chief Engineer, dated April 27, 2021, requesting the Board approve the Drainage District major maintenance and capital improvement projects for a not-to-exceed amount of \$522,500
6. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$936,920
7. Present request for Board approval of payment of invoices and reimbursement of the Drain Revolving Fund in the amount of \$30,258.39
8. Present request for reimbursement of the Evergreen Farmington Fund in the amount of \$33,415.26
9. Other business
10. Approve pro rata payment to Drainage Board members
11. Adjourn

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

March 23, 2021

A meeting of the Drainage Board for the Birmingham CSO Drain was held at 2:00 p.m. on the 23rd of March, 2021. The meeting was conducted electronically via GoToMeeting in accordance with PA 267 of 1976, as amended, and/or as otherwise provided by law.

The meeting was called to order by the Chairperson. The Board indicated where they were physically located at the time of the meeting as follows:

PRESENT: Jim Nash, Oakland County Water Resources Commissioner, participating from Farmington Hills, Michigan.

David Woodward, Chairperson of the Oakland County Board of Commissioners, participating from Royal Oak, Michigan.

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners, participating from Novi, Michigan.

ABSENT: None.

Minutes of the meeting held February 23, 2021 were presented for consideration. It was moved by Markham, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3
Nays - 0

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

A request for approval of payment of invoices and reimbursement of the Drain Revolving Fund in the amount of \$9,712.47 (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 \$9,712.47.

ADOPTED: Yeas - 3
Nays - 0

A request for reimbursement of the Evergreen Farmington Fund in the amount of \$33,415.26 (as attached) was presented. It was moved by Markham, supported by Woodward, to reimburse the Evergreen Farmington Fund in the amount of \$33,415.26.

ADOPTED: Yeas - 3
Nays - 0

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

ADOPTED: Yeas - 3
Nays - 0

There being no further business, the meeting was adjourned.




Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the Birmingham CSO Drain, Oakland County, Michigan, held on the 23rd day of March, 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 Birmingham CSO Drain Drainage District.



Jim Nash, Chairperson

Dated: March 30, 2021

**OAKLAND COUNTY
WATER RESOURCES
COMMISSIONER**

MEMORANDUM

TO: Jim Nash, Chairman
Birmingham CSO RTB Drainage Board

FROM: Jason Say, Project Engineer

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

DATE: April 27, 2021

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

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

Upgrading the service at Birmingham will result in faster and more reliable internet. Please see the attached quote from AT&T. It has been recommended that we select 20Mbps to satisfy the needs of this site.

It is recommended that the Board authorize Oakland County IT & Oakland County WRC to perform the above referenced upgrade, as recommended by OCIT, OCWRC – Business Information Systems and ICS Integration Services LLC for Internet Service Upgrades for a MRC (monthly recurring cost) of \$684.86.

Quotation

Your World. Delivered.



Quotation For:
Oakland County
Attention:
Rob Messner

Quotation valid until:
Prepared by:

7/11/2021
Skip Standriff and Janine Moyer

Service Description: **AT&T Dedicated Internet (ADI) with AT&T Managed Router**

Service	Location Info	10Mbps Ethernet Access	10Mbps Internet Port	Installation	Total MRC
ADI	Oakland County Southeast Michigan	\$526.00	\$71.28	Waived	\$597.28

Service	Location Info	20Mbps Ethernet Access	20Mbps Internet Port	Installation	Total MRC
ADI	Oakland County Southeast Michigan	\$581.00	\$103.86	Waived	\$684.86

Service	Location Info	50Mbps Ethernet Access	50Mbps Internet Port	Installation	Total MRC
ADI	Oakland County Southeast Michigan	\$660.00	\$171.90	Waived	\$831.90

Service	Location Info	100Mbps Ethernet Access	100Mbps Internet Port	Installation	Total MRC
ADI	Oakland County Southeast Michigan	\$810.00	\$279.90	Waived	\$1,089.90

If you have any questions concerning this proposal, please contact me.

THANK YOU FOR YOUR BUSINESS!

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER**
MEMORANDUM

TO: Jim Nash, Chairman
Birmingham CSO Drainage Board

FROM: Gary Nigro, P.E., Chief Engineer

SUBJECT: Birmingham RTB Projects for Approval

DATE: April 27, 2021

As a goal of our asset management program, WRC staff has completed a significant inventory and condition assessment project for the Birmingham CSO Drain collection system and retention treatment basin. Recommendations for rehabilitation or replacement of assets were produced from our asset management software which were then reviewed by staff engineers and operations supervisors in order to select the appropriate intervention.

Below is a list of the major maintenance and capital improvement projects for the Birmingham Retention Treatment Basin Facility that are proposed at this time.

Project Name	Major Maintenance or Capital Improvement	Cost Estimate
Rebuild Flushing Piping and Valves	MM	\$ 15,000
Rehab Control Building Interior/Exterior	MM	\$ 75,000
Rehab Catwalk	MM	\$ 150,000
Chlorine Tank Reline	MM	\$ 35,000
Chlorine Feed Pump Rebuilds	MM	\$ 7,500
Replace Control Building Roof	CIP	\$ 200,000
TRC Minimization Effluent Analyzer Improvements	CIP	\$ 10,000
Replace PLC Batch Controller & Flow Meter for Flushing System	CIP	\$ 30,000
Total:		\$ 522,500

This work was anticipated and budgeted for in the Birmingham RTB Reserves.

Board Action Requested:

It is recommended that the Board approve the Birmingham Retention Treatment Basin major maintenance and capital improvement projects listed above for the not to exceed amount of \$522,500.

OAKLAND COUNTY WATER RESOURCES COMMISSIONER

MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE

Birmingham CSO Drain

Assessment for the following year of expenses: July 1, 2021 through June 30, 2022

Last Assessment (\$): \$ 886,790.00
Date last assessment approved: 4/28/20

Unreserved and Undesignated Fund Balance as of 2/28/21	\$ 72,173.66
Capital Improvement Reserves as of 2/28/21	309,853.80
Major Maintenance Reserves as of 2/28/21	366,325.72
CSO Equipment Reserves (MDEQ) as of 2/28/21	480,000.00
Reserves for Encumbrances as of 2/28/21	0.00
Total Fund Balance at 2/28/2021	<u>\$ 1,228,353.18</u>

OPERATIONS, MAINTENANCE & REPLACEMENT BUDGET for July 1, 2021 through June 30, 2022

Operating Expenses

Sewage Treatment	\$ 414,350.00
Sewer System Maintenance	\$ 28,900.00
Sewer System Engineering	\$ 15,370.00
Pump Maintenance Unit	\$ 270,000.00
System Control Unit	\$ 15,550.00
Laboratory	\$ 1,800.00
Mapping Unit	\$ 200.00
General and Administrative	\$ 51,890.00
Total Operating Expenses	\$ 798,060.00

Revenue Requirements

Operating Expense	\$ 798,060.00
Major Maintenance	\$ 60,000.00
Capital	\$ 105,000.00
Total Reserves	\$ 963,060.00
Non-Rate Revenue	\$ (26,140.00)
Grand Total	\$ 936,920.00

Recommended July 1, 2021 through June 30, 2022 assessment:

Total Anticipated Expenses for July 1, 2021 - June 30, 2022	\$ 936,920.00
Total Anticipated Funds Needed	<u>\$ 936,920.00</u>

TOTAL RECOMMENDED ASSESSMENT

\$ 936,920.00

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

Prepared by: Leo Lease
Leo Lease - Senior Financial Analyst

Date: 4/14/2021

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

Date: April 27, 2021

SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE OF THE BIRMINGHAM CSO DRAIN

Public Corporation	Percentage of Apportionment	Total Amount of Assessment
City of Birmingham	96.86%	\$ 907,500.71
County of Oakland	0.29%	\$ 2,717.07
State of Michigan	2.85%	\$ 26,702.22
Total	100.00%	\$ 936,920.00

Assessment Due Date: To be collected on the following quarters: 9/30/2021, 12/31/2021, 3/31/2022 and 6/30/2022.

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Birmingham CSO Drain for the period July 1, 2021 through June 30, 2022 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

Jim Nash
Chairman of the Drainage Board for the Birmingham CSO Drain

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

Jim Nash
Chairman of the Drainage Board for the Birmingham CSO Drain

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

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting




DATE: April 27, 2021

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 April 16, 2021

G/L Date	Ref No.	Paid To	For	Amount
	V #1514705	Hubbell Roth & Clark Inc	Invoice # 0181720 - Contracted Services - 08/22/20	\$ 3,044.40
	V # 1517832	Trojan Development Company Inc	Invoice # 2010 - Contracted Services	20,351.07
	V #1517766	ICS Integration Services LLC	Invoice # 1916 - Contracted Services	2,025.78
	TBP	Great Lakes Pump & Supply Co	Invoice # 14533 - Contracted Services	2,253.41
	TBP	Johnson Controls	Invoice # 1-102299105802 - Contracted Services	2,583.73
			Total	\$ 30,258.39

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

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting 

DATE: April 27, 2021

SUBJECT: Request for Reimbursement of Evergreen Farmington Fund

The following is a detail of charges paid from the Evergreen Farmington Fund
for the period ending April 16 , 2021.

<u>Date</u>	<u>Ref No.</u>	<u>For</u>	<u>Amount</u>
03/31/21	JE# 354652	March 2021 Storm Water Flow Charges RTB Capacity Use (O & M Credit)	\$33,415.26
			<u>\$33,415.26</u>

5. Bloomfield Village CSO

AGENDA

DRAINAGE BOARD FOR THE BLOOMFIELD VILLAGE CSO DRAIN

March 23, 2021

1. Call meeting to order
2. Approve minutes of meeting of February 23, 2021
3. Public Comments
4. Present Memorandum from Jason Say, P.E., dated April 27, 2021, requesting the Board to authorize Oakland County IT and Oakland County WRC to perform for internet service upgrades for a monthly recurring cost of \$684.86
5. Present Memorandum from Gary Nigro, P.E., Chief Engineer, dated April 27, 2021, requesting the Board approve the Drainage District major maintenance and capital improvement projects for a not-to-exceed amount of \$425,500
6. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$1,374,990
7. Present request for Board approval of payment of invoices and reimbursement of the Drain Revolving Fund in the amount of \$10,001.59
8. Present request for reimbursement of the Evergreen Farmington Fund in the amount of \$42,173.67
9. Other business
10. Approve pro rata payment to Drainage Board members
11. Adjourn

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

March 23, 2021

A meeting of the Drainage Board for the Bloomfield Village CSO Drain was held at 2:00 p.m. on the 23rd of March, 2021. The meeting was conducted electronically via GoToMeeting in accordance with PA 267 of 1976, as amended, and/or as otherwise provided by law.

The meeting was called to order by the Chairperson. The Board indicated where they were physically located at the time of the meeting as follows:

PRESENT: Jim Nash, Oakland County Water Resources Commissioner, participating from Farmington Hills, Michigan.

David Woodward, Chairperson of the Oakland County Board of Commissioners, participating from Royal Oak, Michigan.

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners, participating from Novi, Michigan.

ABSENT: None.

Minutes of the meeting held February 23, 2021 were presented for consideration. It was moved by Markham, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3
Nays - 0

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

A request for approval of payment of invoices and reimbursement of the Drain Revolving Fund in the amount of \$13,420.61 (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 \$13,420.61.

ADOPTED: Yeas - 3
Nays - 0

A request for reimbursement of the Evergreen Farmington Fund in the amount of \$42,173.67 (as attached) was presented. It was moved by Markham, supported by Woodward, to reimburse the Evergreen Farmington Fund in the amount of \$42,173.67.

ADOPTED: Yeas - 3
Nays - 0

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

ADOPTED: Yeas - 3
Nays - 0

There being no further business, the meeting was adjourned.

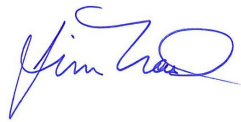


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the Bloomfield Village CSO Drain, Oakland County, Michigan, held on the 23rd day of March, 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 Bloomfield Village CSO Drain Drainage District.



Jim Nash, Chairperson

Dated: March 30, 2021

**OAKLAND COUNTY
WATER RESOURCES
COMMISSIONER**

MEMORANDUM

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

FROM: Jason Say, Project Engineer

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

DATE: April 27, 2021

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

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

Upgrading the service at Bloomfield Village will result in faster and more reliable internet. Please see the attached quote from AT&T. It has been recommended that we select 20Mbps to satisfy the needs of this site.

It is recommended that the Board authorize Oakland County IT & Oakland County WRC to perform the above referenced upgrade, as recommended by OCIT, OCWRC – Business Information Systems and ICS Integration Services LLC for Internet Service Upgrades for a MRC (monthly recurring cost) of \$684.86.

Quotation

Your World. Delivered.



Quotation For:
Oakland County
Attention:
Rob Messner

Quotation valid until:
Prepared by:

7/11/2021
Skip Standriff and Janine Moyer

Service Description: **AT&T Dedicated Internet (ADI) with AT&T Managed Router**

Service	Location Info	10Mbps Ethernet Access	10Mbps Internet Port	Installation	Total MRC
ADI	Oakland County Southeast Michigan	\$526.00	\$71.28	Waived	\$597.28

Service	Location Info	20Mbps Ethernet Access	20Mbps Internet Port	Installation	Total MRC
ADI	Oakland County Southeast Michigan	\$581.00	\$103.86	Waived	\$684.86

Service	Location Info	50Mbps Ethernet Access	50Mbps Internet Port	Installation	Total MRC
ADI	Oakland County Southeast Michigan	\$660.00	\$171.90	Waived	\$831.90

Service	Location Info	100Mbps Ethernet Access	100Mbps Internet Port	Installation	Total MRC
ADI	Oakland County Southeast Michigan	\$810.00	\$279.90	Waived	\$1,089.90

If you have any questions concerning this proposal, please contact me.

THANK YOU FOR YOUR BUSINESS!

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER**
MEMORANDUM

TO: Jim Nash, Chairman
Bloomfield Village CSO Drainage Board

FROM: Gary Nigro, P.E., Chief Engineer

SUBJECT: Bloomfield Village RTB Projects for Approval

DATE: April 27, 2021

As a goal of our asset management program, WRC staff has completed a significant inventory and condition assessment project for the Bloomfield Village CSO Drain collection system and retention treatment basin. Recommendations for rehabilitation or replacement of assets were produced from our asset management software which were then reviewed by staff engineers and operations supervisors in order to select the appropriate intervention.

Below is a list of the major maintenance and capital improvement projects for the Bloomfield Village Retention Treatment Basin Facility that are proposed at this time.

Project Name	Major Maintenance or Capital Improvement	Cost Estimate
Rebuild Flushing Piping and Valves	MM	\$ 20,000
Rehab Control Building Interior/Exterior	MM	\$ 60,000
Rebuild Air Compressors 1 & 2	MM	\$ 15,000
Inspect/Rehab Automatic Transfer Switch	MM	\$ 20,000
Reline East & West FRP Tanks	MM	\$ 35,000
Basin Catwalk Lighting	MM	\$ 25,000
Chlorine Feed Pump Rebuilds	MM	\$ 7,500
Replace Power Supply UPS	CIP	\$ 40,000
Replace 7 Bubblers	CIP	\$ 35,000
Replace East & West Hypochlorite Tank Level Sensors	CIP	\$ 10,000
Replace 2 Flow Meters	CIP	\$ 65,000
Replace Wet Well Level Control Valve	CIP	\$ 23,000
Replace Sample Pumps P-10 & P-11	CIP	\$ 30,000
TRC Minimization Effluent Analyzer Improvements	CIP	\$ 10,000
Replace PLC Batch Controller & Flow Meter for flushing system	CIP	\$ 30,000
Total:		\$ 425,500

This work was anticipated and budgeted for in the Bloomfield Village RTB Reserves.

Board Action Requested:

It is recommended that the Board approve the Bloomfield Village Retention Treatment Basin major maintenance and capital improvement projects listed above for the not to exceed amount of \$425,500.

OAKLAND COUNTY WATER RESOURCES COMMISSIONER

MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE

Bloomfield Village CSO Drain

Assessment for the following year of expenses: July 1, 2021 through June 30, 2022

Last Assessment (\$):	\$	1,278,660.00
Date last assessment approved:		4/28/20
Unreserved and Undesignated Fund Balance as of 2/28/21	\$	(193,117.09)
Capital Improvement Reserves as of 2/28/21		945,065.40
Major Maintenance Reserves as of 2/28/21		198,297.53
CSO Equipment Reserves (MDEQ) as of 2/28/21		480,000.00
Reserves for Encumbrances as of 2/28/21		0.00
Total Fund Balance at 2/28/2021	\$	1,430,245.84

OPERATIONS, MAINTENANCE & REPLACEMENT BUDGET for July 1, 2021 through June 30, 2022

Operating Expenses

Sewage Treatment	\$	543,520.00
Sewer System Maintenance	\$	37,940.00
Sewer System Engineering	\$	53,670.00
Pump Maintenance Unit	\$	349,430.00
Systems Control Unit	\$	22,540.00
Laboratory	\$	2,690.00
Mapping Unit	\$	4,840.00
General and Administrative	\$	69,950.00
Total Operating Expenses	\$	1,084,580.00

Revenue Requirements

Operating Expense	\$	1,084,580.00
Major Maintenance	\$	61,770.00
Capital	\$	254,360.00
Total Revenue Requirements	\$	1,400,710.00
Non-Rate Revenue	\$	(25,720.00)
Rate Required Revenue	\$	1,374,990.00

Recommended July 1, 2021 through June 30, 2022 assessment:

Total Anticipated Expenses for July 1, 2021 - June 30, 2022	\$	1,374,990.00
Total Anticipated Funds Needed	\$	1,374,990.00

TOTAL RECOMMENDED ASSESSMENT

\$ 1,374,990.00

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

Prepared by:

Leo Lease
Leo Lease - Senior Financial Analyst

Date:

4/14/2021

Approved by:

Steve Korth
Steve Korth - Manager, Water Resources Commissioner

Date:

April 27, 2021

SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE OF THE BLOOMFIELD VILLAGE CSO DRAIN

Public Corporation	Percentage of Apportionment	Total Amount of Assessment
City of Birmingham	22.095%	\$ 303,804.04
Charter Township of Bloomfield	54.830%	\$ 753,907.02
City of Bloomfield Hills	6.784%	\$ 93,279.32
County of Oakland	16.291%	\$ 223,999.62
Total	100.000%	\$ 1,374,990.00

Assessment Due Date: To be collected on the following quarters: 9/30/2021, 12/31/2021, 3/31/2022 and 6/30/2022.

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Bloomfield Village CSO Drain for the period July 1, 2021 through June 30, 2022 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

Jim Nash
Chairman of the Drainage Board for the Bloomfield Village CSO Drain

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

Jim Nash
Chairman of the Drainage Board for the Bloomfield Village CSO Drain

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

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting



DATE: April 27, 2021

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 April 16, 2021

G/L Date	Ref No.	Paid To	For	Amount
	V # 1517768	ICS Integration Services LLC	Invoice # 1915 - Contracted Services	\$ 2,228.05
	V # 1514796	JCI Jones Chemicals Inc	Invoice # 848376 - Chlorination Supplies	3,558.41
	TBP	JCI Jones Chemicals Inc	Invoice # 850306 - Chlorination Supplies	1,893.42
	TBP	Great Lakes Pump & Supply Co	Invoice # 14533 - Contracted Services	2,321.71
			Total	<u>\$ 10,001.59</u>

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

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting



DATE: April 27, 2021

SUBJECT: Request for Reimbursement of Evergreen Farmington Fund

The following is a detail of charges paid from the Evergreen Farmington Fund
for the period ending April 16, 2021.

<u>Date</u>	<u>Ref No.</u>	<u>For</u>	<u>Amount</u>
03/31/21	JE# 354652	March 2021 Storm Water Flow Charges RTB Capacity Use (O & M Credit)	\$42,173.67
			<u>\$42,173.67</u>

6. Clinton River Water Resource Recovery Facility

AGENDA

DRAINAGE BOARD FOR THE CLINTON RIVER WATER RESOURCE RECOVERY FACILITY

March 23, 2021

1. Call meeting to order
2. Approve minutes of meeting of February 23, 2021
3. Public Comments
4. Present Memorandum from Ben Lewis, P.E., Manager, dated April 27, 2021, requesting the Board approve various projects utilizing funds from Major Maintenance and Capital Improvement reserves
5. Present request for Board approval of payment of invoices from the Construction Fund in the amount \$28,365.01
6. Present request for Board approval of payment of invoices and reimbursement of the Drain Revolving Fund from the Maintenance Fund in the amount of \$276,472.54
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**

March 23, 2021

A meeting of the Drainage Board for the Clinton River Water Resource Recovery Facility was held at 2:00 p.m. on the 23rd of March, 2021. The meeting was conducted electronically via GoToMeeting in accordance with PA 267 of 1976, as amended, and/or as otherwise provided by law.

The meeting was called to order by the Chairperson. The Board indicated where they were physically located at the time of the meeting as follows:

PRESENT: Jim Nash, Oakland County Water Resources Commissioner, participating from Farmington Hills, Michigan.

David Woodward, Chairperson of the Oakland County Board of Commissioners, participating from Royal Oak, Michigan.

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners, participating from Novi, Michigan.

ABSENT: None.

Minutes of the meeting held February 23, 2021 were presented for consideration. It was moved by Markham, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3
Nays - 0

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

A Memorandum from Carrie Cox, Chief Engineer, dated March 23, 2021, requesting the Board approve the allocation of \$15,000 in Capital Improvement Funds for the Influent Metering study was presented. It was moved by Markham, supported by Woodward, to approve the allocation of \$15,000 in Capital Improvement Funds for the Influent Metering study as presented.

ADOPTED: Yeas - 3
Nays - 0

A Memorandum from John Basch, WRC Senior Attorney, dated March 23, 2021 recommending the Board receive and file the update pertaining to the Bedrock Express Lease with the Drainage District was presented. It was moved by Markham, supported by Woodward, to receive and file the update pertaining to the Bedrock Express Lease as presented.

ADOPTED: Yeas - 3
Nays - 0

Engineering Work Order No. D-428 for Biosolids Handling and Septage Receiving Facility in the amount of \$69,400 was presented. It was moved by Markham, supported by Woodward, that Engineering Work Order be approved in the amount of \$69,400 as presented.

ADOPTED: Yeas - 3
Nays - 0

A Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$9,936,170 for the Clinton River Water Resource Recovery Facility (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 \$9,936,170 as presented.

ADOPTED: Yeas - 3
Nays - 0

A request for Board approval of payment of invoices from the Construction Fund in the amount of \$65,538.91 (as attached) was presented. It was moved by Markham, supported by Woodward, that the invoices in the amount of \$65,538.91 be paid as presented.

ADOPTED: Yeas - 3
Nays - 0


A request for Board approval of payment of invoices and reimbursement of the Drain Revolving Fund from the Maintenance Fund in the amount of \$677,927.15 (as attached) was presented. It was moved by Markham, supported by Woodward, that the invoices in the amount of \$677,927.15 be paid as presented.

ADOPTED: Yeas - 3
Nays - 0

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

ADOPTED: Yeas - 3
Nays - 0

There being no further business, the meeting was adjourned.




Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the Clinton River Water Resource Recovery Facility, Oakland County, Michigan, held on the 23rd day of March, 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 Clinton River Water Resource Recovery Facility Drainage District.



Jim Nash, Chairperson

Dated: March 30, 2021

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

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

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

SUBJECT: CRWRRF – Major Maintenance and Capital Improvement Projects

DATE: April 27, 2021

Annually the Board of the Clinton River Water Resource Recovery Facility Drainage District approves the Maintenance Assessment Recommendation and Special Assessment Roll for the coming fiscal year. Included in the development of the Maintenance Assessment Recommendation and Special Assessment Roll is the Long Range Plan (LRP) for Major Maintenance and Capital Improvement Projects at the facility. Major Maintenance Projects represent the larger maintenance activities required for the operation of the plant and are not normally performed during the day-to-day maintenance and operations. Capital Improvement Projects include new construction, replacement of existing assets and/or work that extends the useful life of existing assets.

The attached spreadsheet provides a list of projects included in the LRP for the FY2021 budget as approved by the Board at its March 24, 2020 meeting. The projects that have not yet been initiated are highlighted in yellow. CRWRRF staff recommends proceeding with the uninitiated projects identified on the attached spreadsheet.

Requested Action: Approve the uninitiated projects as identified on the attached spreadsheet using funds from Major Maintenance and Capital Improvement reserves.

CLINTON RIVER WATER RESOURCE RECOVERY FACILITY

MAJOR MAINTENANCE PROJECTS					FY 2021
Proj. ID	Proj. Bdgt.	Spent as of FY2020	BR No.	Description	Projected
		\$0	MM-ALW-8	WWTP Major Maint Unplanned	\$100,000
		\$147,194		CAMP (RIVA)	\$82,718
		\$0	MM-ALW-7	Pump Rebuilds	\$25,000
		\$0		Facilities Repairs	\$50,000
		\$0		Valve & Gate Replacement	\$50,000
		\$0		Electrical Assessments	\$11,000
		\$0		Biosolids Re-use & Customer Invest.	\$50,000
		\$0		EB Tanks 3 & 4 Weirs and Baffles	\$55,000
		\$0		AUB Weir Improvements	\$10,000
1-3088	\$157,200	\$102,831	19-U1	PFAS Study	\$54,368
1-2924	\$290,000	\$241,171	19-M4	CRWRRF 2019 Studies: Project Evaluation & Selection Study	\$48,000
1-2968	\$47,674	\$39,296	19-M5	CRWRRF WRC LAB Data Mgmt.	\$8,378
1-3064	\$250,000	\$164,129	20-M1	CRWRRF Operations Optimization	\$85,900
1-3243	\$140,000	\$0	20-M26	360 Water Training	\$80,000
1-3244	\$280,000	\$159,154	20-M27	CRWRRF Stand Piping Replacement	\$121,000
1-3246	\$440,000	\$27,767	20-M28	CRWRRF CBHP Co-Gen and Electrical	\$412,000
		\$0		EB Deck Inspection	\$50,000
		\$0		EB Access Drive Repair	\$25,000
		\$0		Effluent Joint Repair (400-500ft)	\$100,000
		\$0		Crane Repair	\$40,000
1-3304	\$31,000	\$0	21-M3	CRWRRF Tertiary SCADA Improvements	\$31,000
					\$1,489,364

CAPITAL IMPROVEMENT PROJECTS					FY 2021
Proj. ID	Proj. Bdgt.	Spent as of FY2020	BR No.	Description	Projected
		\$0	CIP-ALW-2	CRWRRF CIP Unplanned	\$50,000
		\$0		Vehicle and Equipment Replacements	\$40,000
		\$0		Samplers	\$20,000
1-2787	\$3,833,600	\$3,030,430	18-C9	Admin Bldg Rehab	\$250,000
1-2729	\$349,013	\$320,336	18-C7	Disinfection Upgrade	\$28,677
1-2938	\$70,000	\$39,870	19-C5	EB Tertiary Backwash Actuator	\$30,130
1-2923	\$200,000	\$124,635	19-C4	EB Primary Sludge Pump Replacement	\$75,000
1-3042	\$100,000	\$74,628	19-C6	EB Aeration Blower 125hp	\$125,373
		\$0		Auburn Blower 50hp	\$150,000
1-3084	\$275,000	\$35,134	20-C9	CRWRRF Electrical Grounding	\$239,866
1-3087	\$169,244	\$141,682	20-C10	Biosolids Phase II (Non-Project Costs)	\$27,564
		\$0		Diffuser Replacement	\$100,000
		\$0		Biosolids Finishing Costs (non-project)	\$250,000
		\$0		Lab - Coliform Equipment / Other Equipment	\$40,000
1-3362	\$108,000	\$0	21-C14	Odor Control Study	\$108,000
1-3177	\$70,000	\$38,580	20-C36	Tertiary Filter Study	\$31,420
1-3269	\$442,000	\$0	20-C61	CRWRRF Sodium Hypo Line Replacement	\$442,200
		\$0		I&C Improvements and Replacements	\$30,000
		\$0		CRWRRF Security Upgrades	\$20,000
1-3338	\$49,000	\$0	21-C12	Biodrying Demonstration	\$49,000
					\$2,107,230

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

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting



DATE: April 27, 2021

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

	Ref No.	For	Amount
CDM Smith Michigan, Inc	V # 1517341	Invoice # 47 - Engineering Admin - 02/07/21 - 03/06/21 - Proj 1-2181	27,240.01
Dickinson Wright PLLC	TBP	Invoice # 1564563 - Legal Services - 02/28/21 - Proj #1-2181	1,125.00
		Total for Project # 1-2181	\$ 28,365.01

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

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting



DATE: April 27, 2021

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 March 17, 2021 to April 16, 2021.

Payable To	Ref No.	For	Amount
USA Blue Book	Mar 2021 Pcard	Pcard - Lab Supplies	\$ 1,683.68
USA Blue Book	Mar 2021 Pcard	Pcard - Lab Supplies	1,741.18
The Macomb Group Inc	Mar 2021 Pcard	Pcard - Materials and Supplies	1,358.00
Amazon	Mar 2021 Pcard	Pcard - Materials and Supplies	1,899.90
Grainger	Mar 2021 Pcard	Pcard - Materials and Supplies	2,815.46
The Macomb Group Inc	Mar 2021 Pcard	Pcard - Materials and Supplies	1,022.13
USA Blue Book	Mar 2021 Pcard	Pcard - Lab Supplies	1,517.62
PVS Technologies Inc	TBP	Invoice # 285123 - Chemical Treatment	2,573.46
PVS Technologies Inc	V # 1517487	Invoice # 285394 - Chemical Treatment	3,175.26
PVS Technologies Inc	TBP	Invoice # 286062 - Chemical Treatment	2,225.64
JCI Jones Chemicals Inc	V # 1514797	Invoice # 848463 - Chemical Treatment	2,545.20
JCI Jones Chemicals Inc	TBP	Invoice # 850947 - Chemical Treatment	2,530.08
JCI Jones Chemicals Inc	TBP	Invoice # 850964 - Chemical Treatment	2,256.75
Ovivo USA LLC	TBP	Invoice # 8480468 - Material and Supplies	4,239.20
Polydyne Inc	TBP	Invoice # 1532052 - Chemical Treatment	4,968.00
Polydyne Inc	TBP	Invoice # 1534245 - Chemical Treatment	9,936.00
Waste Management	TBP	Invoice # 8511564-1714-5 - Garbage & Rubbish Disposal	1,532.21
Waste Management	TBP	Invoice # 8511565-1714-2 - Garbage & Rubbish Disposal	1,930.14
Professional Building Services LLC	TBP	Invoice # 2186 - Contracted Services - March 2021	1,326.00
Pro-Seal Service Group	V # 1515222	Invoice # 211052 - Contracted Services	2,845.41
D3W Industries	V # 1514427	Invoice # 2419 - Material and Supplies	5,775.00
Limbach Company LLC-Michigan	V # 1517599	Invoice # 8488 - Contracted Services	2,023.47
Hach	V # 1517979	Invoice # 12371182 - Material and Supplies	1,301.00
Lamphere's Tree Service	V # 1517616	Invoice 1633 - Contracted Services	3,300.00
Dickinson Wright PLLC	TBP	Invoice # 1564579 - Legal Services - 02/28/2021	1,912.50
Subtotal			\$ 68,433.29
CH2M Hill Engineers, Inc	TBP	Invoice # 683676CH025 - Contracted Services - 4/02/21 - Proj # 1-3246	\$ 24,294.07
CH2M Hill Engineers, Inc	TBP	Invoice # 683676CH029 - Contracted Services - 4/02/21 - Proj # 1-3246	\$ 58,364.96
Subtotal - Project 1-3246			\$ 82,659.03
OHM	V # 1517319	Invoice # 331944 - Contracted Services - 02/27/21 - Proj # 1-3269	\$ 11,472.00
OHM	TBP	Invoice # 332694 - Contracted Services - 03/27/21 - Proj # 1-3269	\$ 16,196.25
DVM Utilities Inc	TBP	Invoice # 2 - Project Construction - Proj # 1-3269	74,925.00
Subtotal - Project 1-3269			\$ 102,593.25
Tetra Tech, Inc	TBP	Invoice # 51714919 - Contracted Services - 02/19/21 - Proj # 1-3304	\$ 3,552.50
Subtotal - Project 1-3304			\$ 3,552.50
CH2M Hill Engineers, Inc	TBP	Invoice # 683676CH026 - Contracted Services - 2/26/21 - Proj # 1-3362	6,162.97
Subtotal - Project 1-3362			\$ 6,162.97
OHM	V # 1517305	Invoice # 331167 - Contracted Services - 01/30/21 - Proj # 1-3008	\$ 13,071.50
Subtotal - Project 1-3008			\$ 13,071.50
Total			\$ 276,472.54

7. George W. Kuhn Drain

AGENDA

DRAINAGE BOARD FOR THE GEORGE W. KUHN DRAIN

April 27, 2021

1. Call meeting to order
2. Approve minutes of meeting of March 23, 2021
3. Public Comments
4. Present Memorandum from Jim Wineka, P.E., Assistant Chief Engineer, dated April 27, 2021 to support the OAKSTEM 2021 Street Tree Enhancement program for a not-to-exceed amount of \$50,000
5. Present Memorandum from Gary Nigro, P.E., Chief Engineer, dated April 27, 2021, requesting the Board approve Drainage District major maintenance and capital improvement projects for a not-to-exceed amount of \$1,386,500
6. Present Memorandum from Steve Korth, P.E., Manager, dated April 27, 2021, requesting the Board approve the rates and charges for the fiscal year beginning July 1, 2021
7. Present for approval the Drainage District settlement pertaining to the 2014 flooding mass tort class action litigation
8. Present request for Board approval of payment of invoices in the amount of \$55,884.99
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**

March 23, 2021

A meeting of the Drainage Board for the George W. Kuhn Drain was held at 2:00 p.m. on the 23rd of March, 2021. The meeting was conducted electronically via GoToMeeting in accordance with PA 267 of 1976, as amended, and/or as otherwise provided by law.

The meeting was called to order by the Chairperson. The Board indicated where they were physically located at the time of the meeting as follows:

PRESENT: Jim Nash, Oakland County Water Resources Commissioner, participating from Farmington Hills, Michigan.

David Woodward, Chairperson of the Oakland County Board of Commissioners, participating from Royal Oak, Michigan.

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners, participating from Novi, Michigan.

ABSENT: None.

Minutes of the meeting held February 23, 2021 were presented for consideration. It was moved by Markham, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3
Nays - 0

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

Construction Estimate No. 19 for Weiss Construction in the amount of \$26,470 (as attached) was presented. It was moved by Markham, supported by Woodward, to approve Construction Estimate No. 19 in the amount of \$26,470 as presented.

ADOPTED: Yeas - 3
Nays - 0

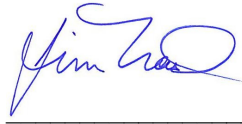
A request for Board approval of payment of invoices in the amount of \$46,967.38 (as attached) was presented. It was moved by Markham, supported by Woodward, that the invoices in the amount of \$46,967.38 be paid as presented.

ADOPTED: Yeas - 3
Nays - 0

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

ADOPTED: Yeas - 3
Nays - 0

There being no further business, the meeting was adjourned.

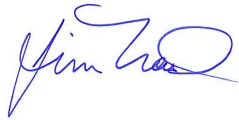


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the George W. Kuhn Drain, Oakland County, Michigan, held on the 23rd day of March, 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 George W. Kuhn Drain Drainage District.



Jim Nash, Chairperson

Dated: March 30, 2021

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

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

FROM: Jim Wineka, P.E., Assistant Chief Engineer

SUBJECT: OAKSTEM 2021 Street Tree Enhancement Matching Grant Pilot Program

DATE: April 27, 2021

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. To accomplish this goal, numerous meetings were held with the communities in the drainage district to develop standards that promote the implementation of Green Infrastructure.

One common Green Infrastructure practice is to increase the tree canopy in a community. The addition of trees within the district will allow for the capture of a significant amount of rainwater over time and provides other community benefits as well.

Oakland County's Economic Development Department has developed the OAKSTEM 2021 Street Tree Enhancement Matching Grant Pilot Program that allows communities in the district to partner with the County to plant trees in the road right-of-way to increase the districts tree canopy and reduce its percent imperviousness over time. Proposed funding for this program consists of the following sources:

GWK Drain Drainage District	\$50,000
Oakland County Planning Department	\$100,000
Oakland County Board of Commissioners	\$50,000
Participating Communities	1 to 1 match requirement

Eligible participating communities are required to provide a 1 to 1 match of their awarded grant amount for tree planting as outlined in the approved Board of Commissioner's Community Cost Participation Agreement. Program Administration will be provided by the Oakland County Economic Development Department and a draft Agreement is attached for reference.

Recommended Action: Authorize a not-to-exceed FY 2021 expenditure of \$50,000 to support the OAKSTEM 2021 Street Tree Enhancement program consistent with the districts goals of reducing runoff into the Combined Sewer System and promoting Green Infrastructure and reduced imperviousness.

OAKSTEM 2021 STREET TREE ENHANCEMENT MATCHING GRANT PILOT PROGRAM

COST PARTICIPATION AGREEMENT

Project Name (the "Project"):

County Project No. **2021-XX**
Purchasing / Fiscal XXXXXX

Participating GWK Community (the "Community"):

This Cost Participation Agreement ("Agreement") is made and entered into this ___ day of ___, 2021, by and between the County of Oakland, Michigan (the "County"), and the above-referenced Community.

WHEREAS, the County has established the OAKSTEM 2021 Street Tree Enhancement Matching Grant Pilot Program (the "Program") to decrease impervious surface area and increase the tree canopy in communities that are within the George W. Kuhn ("GWK") Drainage District (the "GWK District") (individually, a "GWK Community" and, collectively, the "GWK Communities"), as further described in the Terms and Policies of the Program set forth in Attachment A to this Agreement (the "Program Policies"). The County intends for the Program to assist GWK Communities with projects located within the GWK District. Limited matching funds will be distributed as reimbursement for costs expended among qualifying GWK Communities with approved 2021 Program Applications for specific, targeted street tree planting projects on public road rights of way (ROW) that are under their jurisdiction or on public road ROW directly adjacent to land publicly owned by the GWK Communities;

WHEREAS, the GWK Community has submitted to the County a 2021 Application Form seeking funds from the Program relating to the project identified above as more fully described in such Application and summarized in Attachment B of this Agreement (the "Project") and made a part hereof, and the County has reviewed and approved the GWK Community's Application; and

WHEREAS, the County desires to contribute funds to the Project in accordance with the terms of this Agreement and subject to the Program Policies on a 1 / 1 match basis in an amount not to exceed the limits set forth in this Agreement and in no instance exceeding the maximum match amount set forth for the GWK Community set forth on Schedule 1 to Attachment A to this Agreement.

NOW THEREFORE, in consideration of the mutual covenants and agreements of the parties to this Agreement, the parties agree as follows:

1. GWK Community's Representations and Warranties. The GWK Community acknowledges and agrees to the Program Policies and represents and warrants to the County that (i) the Project, and the implementation thereof, is and will be consistent with the purposes of the Program, the description of the Project set forth in the GWK Community's Application and in Attachment B to this Agreement, and in compliance with the Program Policies; and (ii) any funds received from the County through the Program or otherwise related to the Project shall solely be used by the GWK Community for the permitted expenses for the Project and for no other purpose.
2. Reporting Requirements. This is a reimbursement program. The GWK Community shall submit a report to the County after the completion of the Project describing in detail with supporting documentation, including, but not limited to, narratives, drawings, maps, warranties, and/or photographs and paid invoices to sufficiently evidence that the Project was completed in accordance with the Program Policies, the GWK Community's Application, and Attachment B to this Agreement. Said report and documentation must be received by the County prior to June 30, 2022

3. Authorization to Publicize. The GWK Community hereby authorizes and permits and grants a non-exclusive, irrevocable license to the County, without further notice and action required by the GWK Community or the County, to use photographs, logos, published/printed information, and any other materials to promote or otherwise publicize the County, the Program, the Project and/or the GWK Community in any manner or form, including, but not limited to, in social media, press releases, advertisements, and/or publications of any nature.
4. No Guaranty of Participation. The GWK Community acknowledges, understands, and agrees (i) the funding provided by the County through the Program is meant to supplement, and not replace, funding for existing street tree planting programs or projects engaged in by the GWK Community; (ii) the Program is expressly established as a pilot program, there is no guarantee that the Program will be continued from year-to-year and the County expects that most projects funded under the Program will be completed by the end of calendar year 2021; and (iii) there is no obligation on behalf of the County to either fund the Project or continue the Program in the future.
5. Assumption of Liabilities and Responsibilities; Release. The GWK Community assumes any and all responsibilities, including, but not limited to, costs and expenses, and liabilities arising out of the administration and implementation of the Project and the ongoing maintenance and warranty compliance of any and all trees planted through the Project, and acknowledges and agrees that the County shares no such responsibilities or liabilities in administering or implementing the Project or maintaining any and all trees planted through the Project, or insuring compliance with any warranties. The GWK Community, on its behalf and on behalf of its employees, agents, representatives, elected and appointed officials, and volunteers, agrees to not sue and to waive, release, and forever discharge the County and its employees, agents, representatives, elected and appointed officials, and volunteers from all liability, damages, injuries, claims, or demands of any nature and for any reason ("Claims") arising from or in any way connected to the Program and/or the Project, including, but not limited to, any matters relating to the selection of tree species, planting location or processes, maintenance, tree growth, or removal, and shall indemnify and hold the County harmless against any third party Claims.
6. Approval of Funding. In reliance on the representations, warranties, and agreements made by the GWK Community in this Agreement and each document referenced herein, the County approves the funding of the Project through the Program in the amount identified as "FY2021 OAKSTEM 2021 Program Award" set forth on Attachment B to this Agreement, which amount shall be paid as a reimbursement to the GWK Community by the County upon successful completion of the Project and receipt by the County from the GWK Community of a report and the documentation described in Section 2 of this Agreement and the GWK Community's performance of any and all other obligations set forth in this Agreement or any document referenced herein. Said report and documentation must be received by the County prior to June 30, 2022. If a Project is not completed in accordance with the Application and as approved by the County and/or applicable report and documentation is not received by the County prior to June 30, 2022, to its satisfaction, the County's obligation to pay the reimbursement funds under this Agreement is null and void. The report and the documentation described in Section 2 shall be sent to both the:

Manager of Fiscal Services
Executive Office Building
2100 Pontiac Lake Road, Building 41 West
Waterford, MI 48328

Planning Manager
Economic Development Department
Executive Office Building
2100 Pontiac Lake Road, Building 41 West
Waterford, MI 48328

7. References to the County and/or the Program. All marketing materials created, or references or acknowledgments made, by the GWK Community regarding the receipt or use of funding under the Program for the Project shall reference the County and the Program and the GWK Community, through its authorized representative, shall, upon the County's request, execute a License Agreement for the use of the County's or Program's name and/or any materials, logos, or items

04-16-21

related thereto, provided, however, the GWK Community shall cease the use or reference to the County or the Program upon notice by the County.

8. Counterpart and Electronic Signatures. This Agreement may be signed in counterparts which together shall be deemed a fully executed document. Any signature to this Agreement delivered electronically shall be deemed an original signature to this Agreement.

The parties to this Agreement have executed this Agreement the indicated below.

OAKLAND COUNTY

By: _____

Its: _____

Date: _____

COMMUNITY

By: _____

Its: _____

Date: _____

Attachment A

OAKSTEM 2021 STREET TREE ENHANCEMENT MATCHING GRANT PILOT PROGRAM

Terms and Policies

STATEMENT OF PURPOSE

Recognizing a continuing need to enhance and maintain public street trees on public road rights of way (ROW), Oakland County Government wishes to pilot a discretionary street tree matching program that will allow the County to assist communities that are within the GWK George W. Kuhn ("GWK") Drainage District (the "GWK District")(collectively, the "GWK Communities") with the planting of street trees on public road rights of way ("ROW") that are under their jurisdiction or on public road ROW directly adjacent to land publicly owned by these GWK Communities, and that are within the GWK District.

The County wishes to provide limited matching funds to qualifying GWK Communities to plant street trees that will provide the following direct public benefits: Increase tree canopy; reduce impervious surface area; reduce peak flow storm water run-off; reduce flooding risk; reduce noise; improve air quality; enhance aesthetics; attract, retain and grow business, retain jobs and encourage community investment.

The County wishes to assist GWK Communities to accomplish these public objectives by test-piloting a Street Tree Enhancement Match Program.

PROGRAM SUMMARY

The County established the OAKSTEM 2021 Street Tree Enhancement Matching Grant Pilot Program (the "Program") to increase tree canopy and reduce impervious surface area in the GWK District. The Program seeks to assist the GWK Communities by offering limited matching funds for street tree plantings on public road ROWs that are under their jurisdiction, or on public road ROW directly adjacent to land publicly owned by these GWK Communities, and that are within the GWK District.

Each GWK Community seeking funds through the Program shall submit to the County (i) a fully completed Pilot OAKSTEM 2021 Program Application Form (an "Application"), including a description of the project and supporting documentation for which the funding is sought (the "Project"); and (ii) if the County approves such Application, an executed Cost Participation Agreement as presented by the County. Submission of an Application by a GWK Community does not entitle such GWK Community to participation in the Program. Any funding under the Program is subject to the discretion of the County.

The Program provides for reimbursement on 1 / 1 match basis, to a maximum as outlined in Schedule 1 to these Terms and Policies. Funding shall be utilized to supplement and enhance GWK Community street tree plantings only. Funding is not intended for previously planted street trees, to replace existing budgeted street tree planting programs or to replace funding already committed to street tree plantings.

PROJECT GUIDELINES

Program Funding:

1. Shall be utilized solely for the purposes of street tree plantings on public road ROW that are under their jurisdiction, or on public road ROW directly adjacent to land publicly owned by these GWK Communities, and that are within the GWK District.
2. Shall not be utilized to fund street tree improvements on any state trunk lines or ROW under the jurisdiction of the Michigan Department of Transportation.
3. Shall be limited to costs associated with purchase and warranty of street trees only and shall not be utilized for other purposes, such as administrative expenses, ongoing maintenance, personnel, overhead, utilities, consultants or other similar purposes.

4. Shall not be utilized for any motorized or non-motorized road improvements to a roadway.
5. Shall be utilized for street tree planting projects that will result in: Increased tree canopy; reduced impervious surface area; reduced peak flow storm water run-off; reduced flooding risk; reduced noise; improved air quality; enhanced aesthetics; attraction, retention and growth of business, retention of jobs and encouragement of further community investment.

Warranty:

All trees planted using Program funding shall be covered by a minimum two (2) year warranty, guaranteeing survival of the tree for two years from the date of Project completion. Said warranty shall provide for the complete costs of removal and replacement. Replacement trees shall be covered with a full two-year replacement warranty as well.

Local Elected Governing Body Resolution of Approval:

Each Application shall be accompanied by a certified copy of a resolution of the GWK Community's elected governing body (city council, village council, township board) approving the GWK Community's participation in the Program (including the appropriation of the required funds to fund the Community's obligations under the Program to complete the Project(s)), authorizing application for the Program, designating the person authorized to sign on the GWK Community's behalf, and certifying the GWK Community's commitment to complying with the Program's requirements. A Sample Community Resolution is attached to the Application.

ADMINISTRATION

Funding for Projects through the Program may be appropriated annually by the County, but is not guaranteed. Funding availability shall be determined annually through the budget process.

Program funding may be reduced or eliminated based upon the ability of the County to meet its primary constitutional and statutory duties. The County expressly reserves the right to adjust the County matching funds share at any time based upon County budget needs.

The amount of funds available for match shall be determined by the total amount of funds allocated by the County added to an equal amount representing the match provided by the participating GWK Communities.

The Economic Development Department Planning Manager shall administer the Program, including receiving Applications for Program funding and approval of funding by the County.

DISBURSEMENT

The Planning Manager shall forward an approved Program Award Summary in a form prescribed by the County and a Cost Participation Agreement to each participating GWK Community for local approval.

Minimally, each Application shall include: the GWK Community's responsibility for administering the Project, the Project location, purpose, scope, estimated costs, including supporting details, provisions ensuring compliance with project guidelines, as well as disbursement eligibility requirements. The Cost Participation Agreement shall require the maintenance and delivery of supporting documentation to ensure compliance with the following provisions:

1. Any and all supporting documentation for Project expenditures reimbursed with appropriated funding through the Program shall be maintained a minimum of seven years from the date of final reimbursement for actual expenditures incurred.
2. The Oakland County Auditing Division reserves the right to audit all Project expenditures reimbursed through the Program.

The deadline for submitting the Application shall be established in the Program announcement.

Upon completion by a GWK Community of its Project, the GWK Community shall submit a report and documentation in accordance with the terms and conditions set forth in the Cost Participation Agreement. Said report and documentation must be received by the County prior to June 30, 2022 to receive a reimbursement payment. The Oakland County Department of Management and Budget Fiscal Services Division shall process payments in accordance with its policies and procedures.

In the event an eligible GWK Community chooses not to participate in the Program after having been awarded funding under the Program, any previously undistributed funding allocated to such award may be reallocated to other participating GWK Communities, provided they each meet the requirements under the Program.

At the completion of a Project, the participating GWK Community shall provide a final report to the County as more fully described in the Cost Participation Agreement, including a description of the activities of the recipient and the degree to which the recipient has met the stated public purpose of these Terms and Policies.

04-16-21

Schedule 1 to Attachment A

OAKSTEM 2021 – BASE VALUE DISTRIBUTION FORMULA

Total Budget:		\$200,000											
Factor		Factor 1: Participation		Factor 2: Eligible Road Miles		Factor 3: Imperviousness		Must equal 100%					
Percent of Budget		60%		30%		10%		100%					
Budget Allocation per Factor		\$120,000		\$60,000		\$20,000		\$200,000					
	Community	Type	(Y/N)	Percent Allocation	Factor 1 Allocation	Road Miles	Percent Allocation	Factor 2 Allocation	Impervious Score**	Percent Allocation	Factor 3 Allocation	BASE ALLOCATION per CVT	Percentage of Total Budget
1	Berkley	City	1	7.1%	\$8,571	54.4	5.3%	\$3,172	0.48	7.1%	\$1,411	\$13,155	6.6%
2	Beverly Hills	Village	1	7.1%	\$8,571	5.9	0.6%	\$344	0.376	5.5%	\$1,106	\$10,021	5.0%
3	Birmingham	City	1	7.1%	\$8,571	32.8	3.2%	\$1,913	0.546	8.0%	\$1,605	\$12,089	6.0%
4	Clawson	City	1	7.1%	\$8,571	39.5	3.8%	\$2,303	0.502	7.4%	\$1,476	\$12,351	6.2%
5	Ferdale	City	1	7.1%	\$8,571	73.8	7.2%	\$4,303	0.539	7.9%	\$1,585	\$14,459	7.2%
6	Hazel Park	City	1	7.1%	\$8,571	58.9	5.7%	\$3,434	0.558	8.2%	\$1,641	\$13,647	6.8%
7	Huntington Woods	City	1	7.1%	\$8,571	25.0	2.4%	\$1,458	0.385	5.7%	\$1,132	\$11,161	5.6%
8	Madison Heights	City	1	7.1%	\$8,571	99.3	9.7%	\$5,790	0.561	8.2%	\$1,650	\$16,011	8.0%
9	Oak Park	City	1	7.1%	\$8,571	89.3	8.7%	\$5,207	0.507	7.5%	\$1,491	\$15,269	7.6%
10	Pleasant Ridge	City	1	7.1%	\$8,571	10.4	1.0%	\$606	0.485	7.1%	\$1,426	\$10,604	5.3%
11	Royal Oak	Township *	1	7.1%	\$8,571	1.0	0.1%	\$58	0.52	7.6%	\$1,529	\$10,159	5.1%
12	Royal Oak	City	1	7.1%	\$8,571	219.9	21.4%	\$12,822	0.475	7.0%	\$1,397	\$22,790	11.4%
13	Southfield	City	1	7.1%	\$8,571	47.9	4.7%	\$2,793	0.429	6.3%	\$1,261	\$12,626	6.3%
14	Troy	City	1	7.1%	\$8,571	270.9	26.3%	\$15,796	0.439	6.5%	\$1,291	\$25,658	12.8%
Subtotals:			14	100.0%	\$120,000	1,029.0	100.0%	\$60,000	6.802	100.0%	\$20,000	\$200,000	100.0%
* Royal Oak Township does not have jurisdiction over any roads. The Eligible Road Miles calculation is based on the road frontage of publicly owned property adjacent to public road ROW.													
** Impervious Score is the percent of impervious surface land area within the community expressed as a decimal.													

ATTACHMENT B

OAKSTEM 2021 STREET TREE ENHANCEMENT MATCHING GRANT PILOT PROGRAM

Program Award Summary

Project Name: _____

GWK Community: _____

COUNTY Project No. _____

Project Description:

PROJECT BUDGET

COMMUNITY PROJECT COST BREAKDOWN

Street Tree Purchase (Including Warranty)

COMMUNITY Contribution (Tree and warranty costs only):	(MATCH)	\$ _____
FY2021 OAKSTEM Program Award:	(AWARD)	\$ _____

Total Street Tree Purchase (Including Warranty) \$ _____

Trees must be purchased on or after June 1, 2021.

Additional Costs (not Program match eligible)

COMMUNITY Admin., PE/CE, Maintenance, Planting and Inspection costs. \$ _____

All administration, engineering, maintenance, planting costs and inspection costs will be paid by COMMUNITY.

Total Project Costs (All project costs) \$ _____

OAKSTEM 2021 STREET TREE ENHANCEMENT MATCHING GRANT PILOT PROGRAM

2021 APPLICATION FORM

Project Policies, Guidelines, Available Funding and Required Matching Funds: See Attachment "A".

REQUESTING LOCAL GOVERNMENT

MUNICIPALITY
CONTACT PERSON
TITLE OF CONTACT PERSON
TELEPHONE NUMBER
STREET ADDRESS CITY/ZIP
E-MAIL ADDRESS

PROJECT INFORMATION

SHORT DESCRIPTION OF PROJECT
INTENDED PLANTING SCHEDULE (DATES)
ROAD/ROAD(S) RIGHT(S) OF WAY WHERE TREES WILL BE PLANTED (INCLUDE MAP)
NUMBER, SIZE (DBH) / SPECIES OF STREET TREES TO BE PLANTED

PROJECT BUDGET

COMMUNITY Base Program Allocation = _____

It is anticipated that some COMMUNITIES may not participate, and additional funding may be available. COMMUNITIES are encouraged to request additional Program funding over their base Program allocation amount and demonstrate the available match. The COUNTY may allocate these additional funds based on availability and COMMUNITY match capacity.

COMMUNITY PROJECT COST BREAKDOWN

Street Tree Purchase (Including Warranty)

COMMUNITY Contribution (Tree and warranty costs only):	(MATCH)	\$ _____
FY2021 OAKSTEM 2021 Program:	(REQUEST)	\$ _____
Total Street Tree Purchase (Including Warranty)		\$ _____

Trees must be purchased on or after June 1, 2021.

Additional Costs (not Program match eligible)

COMMUNITY Admin., PE/CE, Maintenance, Planting and Inspection costs. \$ _____

Administration, engineering, maintenance, planting and inspection costs will be paid by COMMUNITY.

Total Project Costs (All project costs) **\$ _____**

PROJECT COMPLIANCE WITH PROGRAM GOALS

THE PROJECT MEETS THE FOLLOWING PROGRAM GOALS: (CHECK ALL THAT APPLY AND PROVIDE BRIEF DESCRIPTION)

- ☐ Increased tree canopy
- ☐ Reduced impervious surface area
- ☐ Reduced peak flow storm water run-off
- ☐ Reduced flooding risk
- ☐ Reduced noise
- ☐ Improved air quality
- ☐ Enhanced aesthetics
- ☐ Attraction, retention and growth of business, retention of jobs
- ☐ Encouragement of further community investment

REQUIRED PROGRAM COMPONENTS AND APPLICATION DOCUMENTATION

- ☐ Copy of Two (2) year warranty provided for all trees planted using Program funds.
- ☐ Map showing street(s) where trees are to be planted.
- ☐ Table summarizing quantity, size and species of street trees to be planted.
- ☐ Copy of local elected governing body (City Council, Village Council or Township Board) certified Resolution of Approval, including person authorized to sign for GWK Community.

ADDITIONAL INFORMATION

PLEASE INCLUDE ANY ADDITIONAL INFORMATION YOU FEEL IMPORTANT FOR THE CONSIDERATION OF THIS PROGRAM APPLICATION

REPORT FOLLOWING COMPLETION OF THE PROJECT

This Cost Participation Agreement shall require the GWK Community entering into such agreement to deliver to the COUNTY a report regarding the activities of the GWK COMMUNITY and the degree to which the recipient has met the stated public purpose of the funding, including before and after photos and other documentation as may be described in the Cost Participation Agreement. The COMMUNITY acknowledges and agrees to give the COUNTY permission to use photographs, logos, published/printed information, and any other materials supplied, without further notice, in press releases and/or publication.

CERTIFICATIONS

I, _____, as the _____ on behalf of _____, have been provided with a copy of the Draft Cost Participation Agreement, including **Attachments "A" and "B"** and (i) agrees to comply with the terms and conditions of the this Application; (ii) understands and agrees to comply with the requirement to provide the COUNTY with a report following the completion of an approved project outlining the degree to which the project met the stated purpose of the funding as set forth in this Application; and (iii) understands that its failure to provide the reports and document or perform any other obligation under this Application or the Cost Participation Agreement shall, at the COUNTY'S option, render its reimbursement obligation null and void.

Signature of Authorized Party

Date

Printed Name and Title

If you have any questions, please contact the following Oakland County Economic Development staff:

Jim Schafer
schaferj@oakgov.com
(248)285-2321

Mike Woods
woodsmp@oakgov.com
(248)762-6395

SAMPLE COMMUNITY RESOLUTION

SAMPLE RESOLUTION

WHEREAS, Oakland County has established the OAKSTEM 2021 Street Tree Enhancement Matching Grant Pilot Program (the "Program") for communities that are wholly or partly within the George W. Kuhn (GWK) Drainage District; and

WHEREAS, the Program seeks to assist GWK Communities by providing limited matching funds for street tree planting projects on public road rights of way (ROW) that are under their jurisdiction or on public road ROW directly adjacent to land publicly owned by the GWK Communities; and

WHEREAS, the CVT Name (the "Community") wishes to submit a 2021 Application Form seeking matching reimbursement funds from the Program, not to exceed \$_____ on a 1 / 1 matching basis for reimbursement for a project briefly described as _____, which is in the GWK Drainage District; and

NOW THEREFORE, CVT Council / Board hereby approves (i) the completion and submission of the Application Form to seek funding through the Program; (ii) if the Application is approved by Oakland County, the Community's participation in the Program; and (iii) the appropriation and expenditure of funds necessary or appropriate to fund its obligations under the Program as set forth in the Application and the Cost Participation Agreement, and hereby authorizes Name of Person to sign the Application and all Agreements and take any other action necessary or appropriate on the Community's behalf to participate in the Program and certifies that the Community will comply with the Program's requirements, including submittal of a final report and other documentation as required by the County, as a condition to receiving reimbursement in accordance with the Program.



OAKSTEM 2021

OAKLAND COUNTY STREET TREE ENHANCEMENT MATCH

***A PILOT GRANT PROGRAM FOR COMMUNITIES IN THE GEORGE W. KUHN
DRAINAGE DISTRICT***

SPONSORS



WHAT IS OAKSTEM 2021?

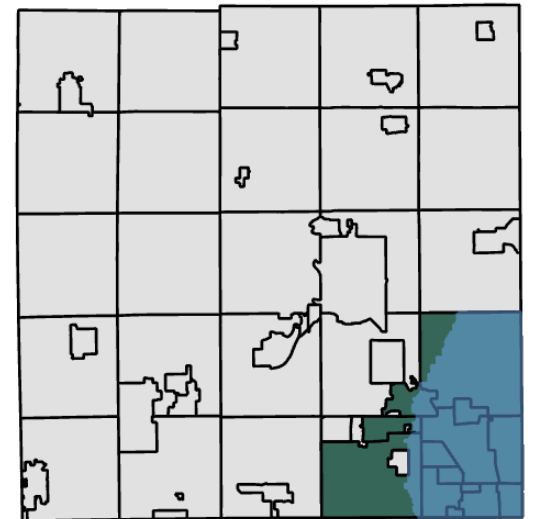
OAKland County **S**treet **T**ree **E**nhancement **M**atch

A matching grant program to incentivize local public street tree plantings within the George W. Kuhn (GWK) Drainage District.

WHAT COMMUNITIES ARE ELIGIBLE FOR FUNDING?

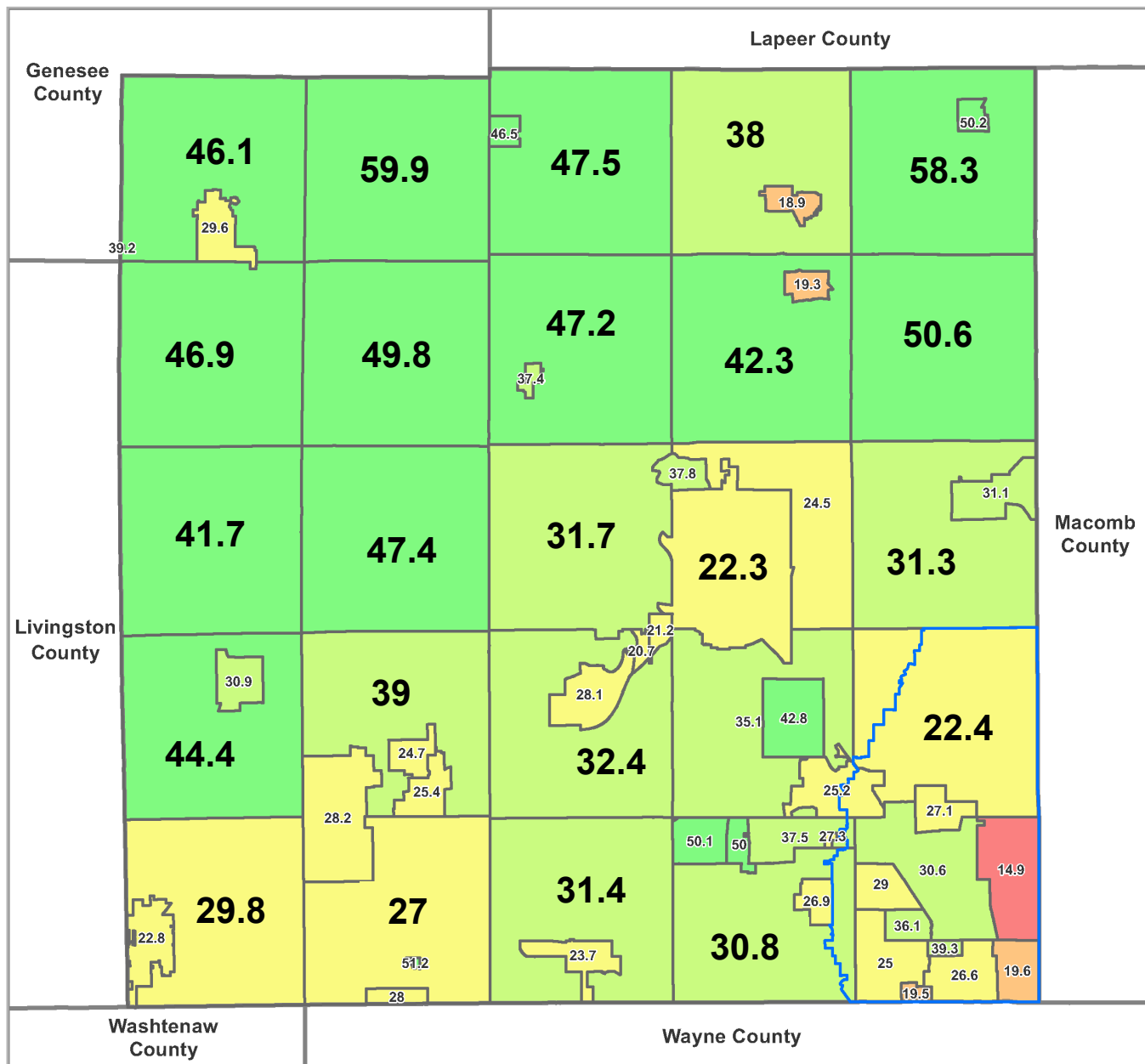
The following 14 communities make up the GWK Drainage District and are eligible to participate:

- Berkley
- Birmingham (pt.)
- Beverly Hills (pt.)
- Clawson
- Ferndale
- Hazel Park
- Huntington Woods
- Madison Heights
- Oak Park
- Pleasant Ridge
- Royal Oak
- Royal Oak Township
- Southfield (pt.)
- Troy (pt.)



WHY JUST THE GWK AREA?

- 🌳 The GWK District has an impervious surface area of 49.2% compared to 19.9% for the County as a whole.
- 🌳 Tree cover in the GWK is 23.3%, while the overall County is 44%.
- 🌳 This results in large peak flows during storm events. With the entire GWK District having combined sewers, this contributes greatly to the past flooding issues in the area.



TREE COVER

OAKLAND COUNTY, MICHIGAN

 GWK Drainage System Boundary

 Municipal Boundary

Tree Cover (Percent)

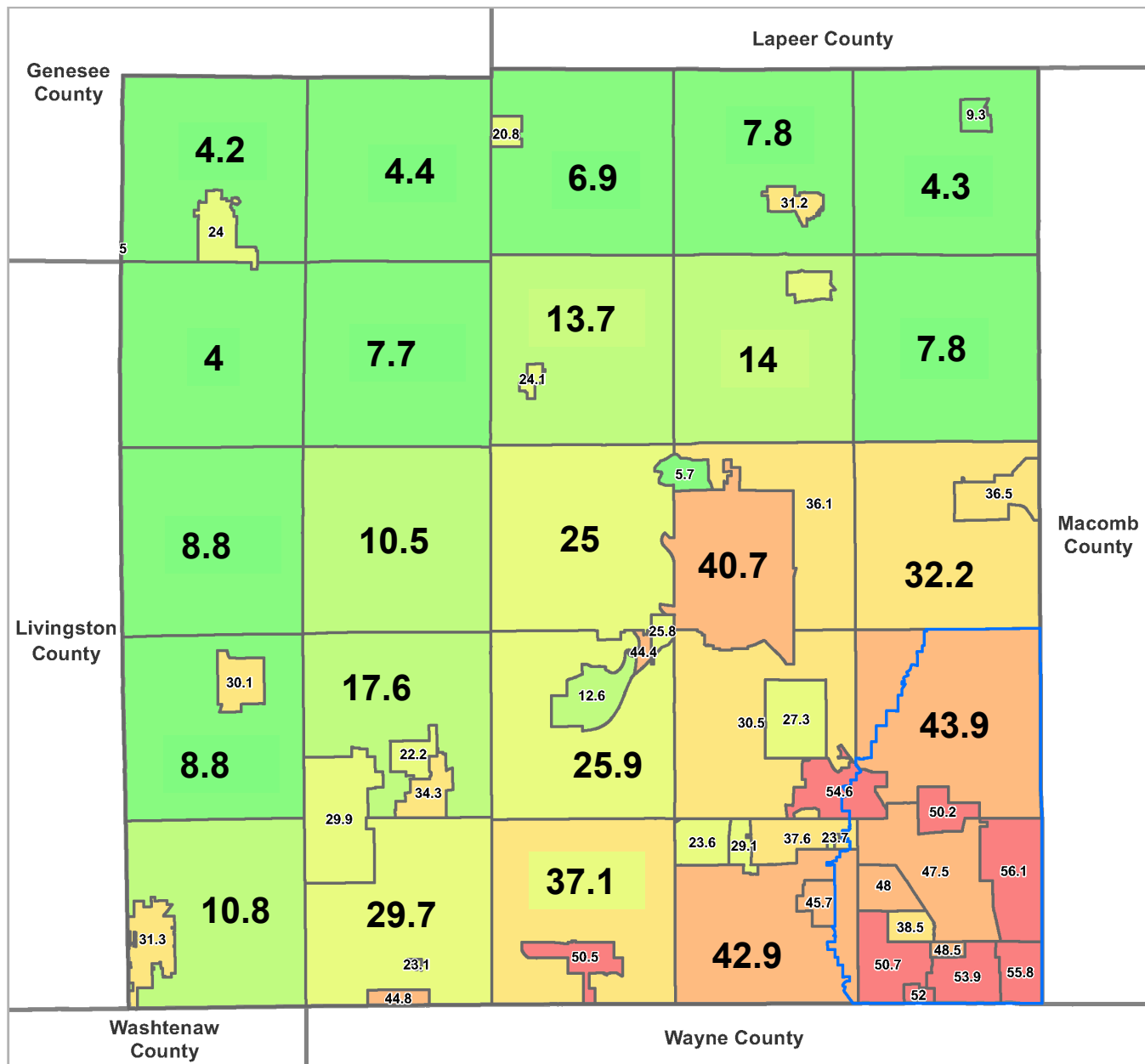
 <15

 15 - 20

 20 - 30

 30 - 40

 40+

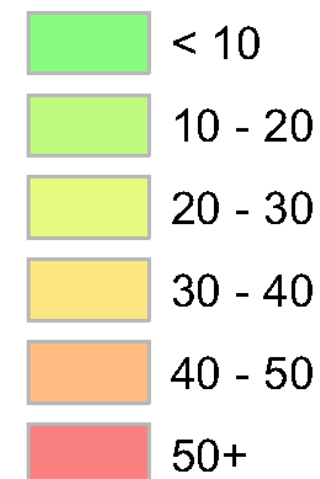


IMPERVIOUS COVER

OAKLAND COUNTY, MICHIGAN

- GWK Drainage System Boundary
- Municipal Boundary

Impervious Cover (Percent)



WHAT IS THE OVERALL GOAL FOR THE GWK AREA?

This program is intended to provide an incentive to GWK communities to either begin, or continue and expand, their public street tree planting program(s) in order to:

- 🌳 increase tree canopy
- 🌳 reduce impervious surface area
- 🌳 reduce peak flow stormwater run-off
- 🌳 attract, retain and grow business and jobs
- 🌳 encourage further community investment
- 🌳 improve air quality
- 🌳 enhance aesthetics
- 🌳 reduce flooding risk
- 🌳 reduce noise

COORDINATION WITH OTHER COUNTY / REGIONAL INITIATIVES

The program supports several County and regional initiatives including:



Water Resources Commission (WRC) effort to adopt new **storm water standards** that are consistent with the entire southeast Michigan region.



Great Lakes Water Authority's (GLWA) ongoing "**One Water**" campaign



EPA air quality standards



SEMCOG's **Green Infrastructure Plan**



Main Street Oakland County's downtown streetscape design focus

KEY PROGRAM ELEMENTS



Public street tree plantings only.
No admin / design / maintenance costs.



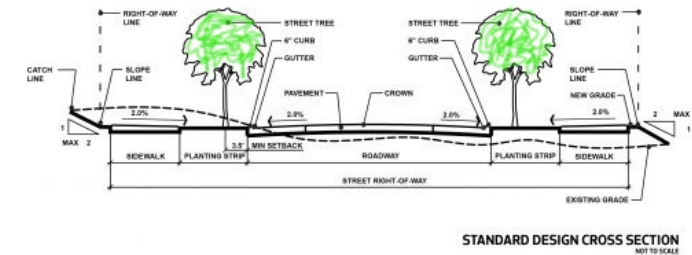
Trees must be planted within public road rights of way within the GWK Drainage District.



Matching grant – 1 / 1 match for street trees within public right of way, within the GWK Drainage District.



Community must procure, plant and maintain trees to their determined public street tree specifications / warranty / species list.






PROPOSED PROGRAM BUDGET

\$100,000	Oakland County ED
\$ 50,000*	Oakland County BOC
<u>\$ 50,000*</u>	Oakland County WRC (GWKDD)
\$200,000	

* Requested

PROPOSED PROGRAM SCHEDULE

-  **Winter / Spring 2020 - 2021** – Funding Commitments.
-  **June 2021** – Grant Announcement / Application.
-  **Fall 2021 / Spring 2022** – Plantings / Reimbursement

QUESTIONS?



**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER**
MEMORANDUM

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

FROM: Gary Nigro, P.E., Chief Engineer

SUBJECT: GWK RTB Projects for Approval

DATE: April 27, 2021

As a goal of our asset management program, WRC staff has completed a significant inventory and condition assessment project for the George W. Kuhn Drain collection system and retention treatment basin. Recommendations for rehabilitation or replacement of assets were produced from our asset management software which were then reviewed by staff engineers and operations supervisors in order to select the appropriate intervention.

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

Project Name	Major Maintenance or Capital Improvement	Cost Estimate
Eight Mile Meter Chamber Misc Equipment Replacements	MM	\$ 150,000
GWK Treatment Building Replace Parking Lot	CIP	\$ 50,000
GWK Treatment Building Replace Screening Variable Frequency Drives	CIP	\$ 200,000
GWK DD Install Two Level Sensor/Flow Monitor	CIP	\$ 175,000
GWK Flow Regulator No 6 Rehab Valves	MM	\$ 55,000
GWK Flow Regulator No 1 Rehab Valves	MM	\$ 192,500
GWK Flow Regulator No 5 Rehab Valves	MM	\$ 115,000
12 Mile Interceptor Level Monitor Replace Electrical and Transducers	CIP	\$ 59,000
GWK Treatment Building Reline Chlorine Tanks No. 2 & 6	MM	\$ 56,000
GWK TRC Minimization Effluent Analyzer Improvements	CIP	\$ 10,000
Dequindre Pump Station Replace Process Support Sampling Equipment	CIP	\$ 8,000
Dequindre Pump Station Replace 9 Pressure Current Transducers	CIP	\$ 66,000
GWK Dewatering PS Replace UPS Unit	CIP	\$ 30,000
Stephenson Control Building Install Gate & Operator	CIP	\$ 50,000
Stephenson Control Building Replace Actuators	CIP	\$ 40,000
Stephenson Control Building Replace Furnace	CIP	\$ 16,000
Stephenson Garage Replace Office Furnace	CIP	\$ 15,000
Stephenson Garage Add Grounds Equipment	CIP	\$ 37,000
Stephenson Garage Rehab Building	MM	\$ 50,000
Stephenson Garage Replace Crane 1-3 Ton Rail Crane	CIP	\$ 12,000
Total:		\$ 1,386,500

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

Board Action Requested:

It is recommended that the Board approve the George W. Kuhn Retention Treatment Basin major maintenance and capital improvement projects listed above for the not to exceed amount of \$1,386,500.

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

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

FROM: Steven Korth, P.E., Manager

SUBJECT: FY 2021-2022 Rate Recommendation

DATE: April 27, 2021

The purpose of this memorandum is to communicate a recommendation to the Board of the George W. Kuhn Drain Drainage District (GWK) detailing the proposed monthly charges to our customer communities based on approved Great Lakes Water Authority (GLWA) monthly charges for its fiscal 2021-22 rate year.

The attached monthly charges are scheduled to be presented to the GWK customer communities on April 28, 2021. Community representatives will be advised that we are continuing to follow the rate share calculation based on a five-year average of water volume to determine each community's monthly sewage charge. These percentages are reviewed annually during the rate-setting process. The stormwater charge continues to be based on the apportionment percentages previously adopted by the Board. The revised monthly charges for services will be billed starting July 2021.

Because of decreases in operating expenses, there is an overall 0.1% decrease from the previous year for combined sewage and stormwater charges. Please refer to the attached Schedule of Rates and Charges for a list of charges for each community. Detailed worksheets, including a Financial Summary, Monthly Charge Schedule, and Share and Monthly Charge Comparison, also are attached.

Recommendation: It is recommended that the Board approve the rates and charges for FY 2021-22 as presented.

Attachments

Steven Korth

Steven Korth, P.E., Manager

Approved: _____
Jim Nash, Chairperson
George W. Kuhn Drain Drainage District

Great Lakes Water Authority
 Approved FY 2022 Sewage Disposal System Service Charges and Allocated Revenue Requirements
Effective Date: July 1, 2021

	Fixed Monthly Charge (a) \$/mo	Projected Revenue from Charges \$
<u>Suburban Wholesale</u>		
1 OMID	5,871,700	70,460,400
2 Rouge Valley	4,605,600	55,267,200
3 Oakland GWK	3,819,000	45,828,000
4 Evergreen Farmington	2,980,500	35,766,000
5 SE Macomb San Dist	2,064,400	24,772,800
6 Dearborn	1,671,500	20,058,000
7 Grosse Pointe Farms	226,300	2,715,600
8 Grosse Pointe Park	156,900	1,882,800
9 Melvindale	129,500	1,554,000
10 Farmington	98,700	1,184,400
11 Center Line	85,800	1,029,600
12 Allen Park	69,800	837,600
13 Highland Park	446,400	5,356,800
14 Hamtramck	332,800	3,993,600
15 Grosse Pointe	74,100	889,200
16 Harper Woods	18,000	216,000
17 Redford Township	22,200	266,400
18 Wayne County #3	4,300	51,600
19 Subtotal "Regional Wholesale Revenues from Charges"		272,130,000
20 Industrial Specific Revenues		13,213,700
21 Subtotal "Regional Wholesale Revenues from Charges"		285,343,700
22 less: Highland Park Bad Debt		0
23 Total "Regional Wholesale Revenues" (a)		285,343,700
* Wholesale charges will be effective July 1, 2020		
Detroit Customer Class - \$		
24 Wholesale Revenue Requirement (c)		194,178,200
25 less: Ownership Benefit per Lease		(5,516,000)
26 Net Wholesale Revenue Requirement		188,662,200
27 Indirect Retail Revenue Requirements (d)		39,233,900
28 less: Use of Lease Payment for Debt Service		0
29 Net Indirect Retail Revenue Requirements (d)		39,233,900
30 Subtotal Subject to GLWA Board Approval (26) + (29)		227,896,100
31 Direct Retail Revenue Requirements (e)		72,261,600
32 Total Local System Revenue Requirement (29) + (31)		111,495,500
33 Total Requirement from Detroit Customer Class (a)		300,157,700

(a) Agrees with "GLWA Budget Schedule 3"

(b) Reserved

(c) Wholesale revenue requirements for the Detroit Customer Class.

(d) Local System revenue requirements related to Master Bond Ordinance (local debt service, etc.)

(e) Local System operating expenses (net of shared services reimbursement) and I&E deposit. Not Subject to GLWA Board approval.

Great Lakes Water Authority
 Approved FY 2022 Sewage Disposal System Industrial Specific Retail Charges
Effective Date: July 1, 2021

Industrial Waste Control Charges			Pollutant Surcharges	
<u>Meter Size - inches</u>	<u>Full Charge</u>	<u>Admin Only Chg</u>	<u>Pollutant</u>	<u>Charge</u>
	\$/mo	\$/mo		\$/lb
5/8	3.54	0.89	BIOCHEMICAL OXYGEN DEMAND (BOD)	
3/4	5.31	1.33	for concentrations > 275 mg/l	0.347
1	8.85	2.21		
1-1/2	19.47	4.87		
2	28.32	7.08	TOTAL SUSPENDED SOLIDS (TSS)	
3	51.33	12.83	for concentrations > 350 mg/l	0.476
4	70.80	17.70		
6	106.20	26.55		
8	177.00	44.25	PHOSPHORUS (P)	
10	247.80	61.95	for concentrations > 12 mg/l	6.368
12	283.20	70.80		
14	354.00	88.50		
16	424.80	106.20	FATS, OIL AND GREASE (FOG)	
18	495.60	123.90	for concentrations > 100 mg/l	0.111
20	566.40	141.60		
24	637.20	159.30		
30	708.00	177.00	SEPTAGE DISPOSAL FEE	
36	778.80	194.70	Per 500 gallons of disposal	36.00
48	849.60	212.40		

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

	2020 Actual	2021 Budget	2022 Forecast	Inc / (Dec)	% Variance
<u>Operating Revenues</u>					
Operating Rate Revenue	\$ 25,454,760.03	\$ 24,427,530.00	\$ 23,341,970.00	\$ (1,085,560.00)	-4.4%
Operating Non-Rate Revenue	145,917.18	134,120.00	139,110.00	4,990.00	3.7%
Operating Revenues	<u>\$ 25,600,677.21</u>	<u>\$ 24,561,650.00</u>	<u>\$ 23,481,080.00</u>	<u>\$ (1,080,570.00)</u>	<u>-4.4%</u>
<u>Operating Expenses</u>					
Sewage Treatment	\$ 26,614,701.89	\$ 21,963,110.00	\$ 21,355,800.00	\$ (607,310.00)	-2.8%
Sewer System Maintenance	285,763.20	234,040.00	288,540.00	54,500.00	23.3%
Sewer System Engineering	73,970.00	68,750.00	79,190.00	10,440.00	15.2%
Water Purchases	-	-	-	-	
Water Maintenance Unit	-	-	-	-	
Water Systems Engineering	-	-	-	-	
Septage Unloading Facility	-	-	-	-	
Pump Maintenance Unit	11,278.69	31,930.00	14,120.00	(17,810.00)	-55.8%
Systems Control Unit	166,688.45	139,550.00	167,590.00	28,040.00	20.1%
Plan Review and Permitting	94,802.36	57,500.00	80,620.00	23,120.00	40.2%
Inspection	9,713.50	8,070.00	9,820.00	1,750.00	21.7%
IPP	-	-	-	-	
Laboratory	-	-	-	-	
Mapping Unit	24,047.49	13,370.00	13,690.00	320.00	2.4%
Miss Dig	2,040.73	2,740.00	2,390.00	(350.00)	-12.8%
Billing Services Unit	-	-	-	-	
General and Administrative	1,399,232.65	2,042,590.00	1,469,320.00	(573,270.00)	-28.1%
Total Operating Expenses	<u>28,682,238.96</u>	<u>24,561,650.00</u>	<u>23,481,080.00</u>	<u>(1,080,570.00)</u>	<u>-4.4%</u>
Net Income	<u>\$ (3,081,561.75)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	
Depreciation	(42,985.82)	(22,100.00)	(42,990.00)	(20,890.00)	94.5%
<u>Reserves</u>					
Non-Operating Revenue	\$ 125,000.01	\$ 500,000.00	\$ 500,000.00	\$ -	0.0%
Non-Operating Expense	-	-	-	-	
Major Maintenance Reserve Revenue	674,522.52	689,590.00	689,590.00	-	0.0%
Major Maintenance Reserve Expense	(19,927.66)	(496,250.00)	(1,273,310.00)	(777,060.00)	156.6%
Emergency Reserve Revenue	99,999.96	100,000.00	100,000.00	-	0.0%
Emergency Reserve Expense	-	-	-	-	
Capital Reserve Revenue	674,219.97	1,350,000.00	1,350,000.00	-	0.0%
Capital Reserve Expense	(19.18)	(700,000.00)	(1,130,000.00)	(430,000.00)	61.4%
Change in Net Assets	<u>\$ (1,570,751.95)</u>	<u>\$ 1,421,240.00</u>	<u>\$ 193,290.00</u>	<u>\$ (1,227,950.00)</u>	<u>-86.4%</u>
<u>Rate Revenue</u>					
Revenue Requirements:					
Operating Expense	\$ 28,682,238.96	\$ 24,561,650.00	\$ 23,481,080.00	\$ (1,080,570.00)	-4.4%
Non-Operating	125,000.01	500,000.00	500,000.00	-	0.0%
Major Maintenance	674,522.52	689,590.00	689,590.00	-	0.0%
Emergency Maintenance	99,999.96	100,000.00	100,000.00	-	0.0%
Capital	674,219.97	1,350,000.00	1,350,000.00	-	0.0%
Total Revenue Requirements	<u>\$ 30,255,981.42</u>	<u>\$ 27,201,240.00</u>	<u>\$ 26,120,670.00</u>	<u>\$ (1,080,570.00)</u>	<u>-4.0%</u>
Non-Rate Revenue	<u>\$ (145,917.18)</u>	<u>\$ (134,120.00)</u>	<u>\$ (139,110.00)</u>	<u>\$ (4,990.00)</u>	<u>3.7%</u>
Rate Required Revenue	<u>\$ 30,110,064.24</u>	<u>\$ 27,067,120.00</u>	<u>\$ 25,981,560.00</u>	<u>\$ (1,085,560.00)</u>	<u>-4.0%</u>

George W. Kuhn Pollution Control

58520

Financial Summary

	2020 Actual	2021 Budget	2022 Forecast	Inc / (Dec)	% Variance
<u>Operating Revenues</u>					
Operating Rate Revenue	\$ 26,023,522.53	\$ 26,416,560.00	\$ 27,479,020.00	\$ 1,062,460.00	4.0%
Operating Non-Rate Revenue	455,518.01	696,360.00	647,340.00	(49,020.00)	-7.0%
Operating Revenues	\$ 26,479,040.54	\$ 27,112,920.00	\$ 28,126,360.00	\$ 1,013,440.00	3.7%
<u>Operating Expenses</u>					
Sewage Treatment	\$ 18,662,921.24	\$ 23,976,540.00	\$ 24,558,040.00	\$ 581,500.00	2.4%
Sewer System Maintenance	307,450.15	299,460.00	341,180.00	41,720.00	13.9%
Sewer System Engineering	320,967.54	260,710.00	311,760.00	51,050.00	19.6%
Water Purchases	68,374.31	-	-	-	
Water Maintenance Unit	-	-	-	-	
Water Systems Engineering	-	-	-	-	
Septage Unloading Facility	-	-	-	-	
Pump Maintenance Unit	1,621,946.19	1,519,290.00	1,637,360.00	118,070.00	7.8%
Systems Control Unit	96,879.78	105,210.00	107,990.00	2,780.00	2.6%
Plan Review and Permitting	-	-	-	-	
Inspection	-	-	-	-	
IPP	-	-	-	-	
Laboratory	10,512.33	8,450.00	13,310.00	4,860.00	57.5%
Mapping Unit	122.97	800.00	810.00	10.00	1.3%
Miss Dig	-	-	-	-	
Billing Services Unit	-	-	-	-	
General and Administrative	1,004,328.49	942,460.00	1,155,910.00	213,450.00	22.6%
Total Operating Expenses	22,093,503.00	27,112,920.00	28,126,360.00	1,013,440.00	3.7%
Net Income	\$ 4,385,537.54	\$ -	\$ -	\$ -	
Depreciation	(70,113.02)	(15,960.00)	(67,730.00)	(51,770.00)	324.4%
<u>Reserves</u>					
Non-Operating Revenue	\$ -	\$ -	\$ -	\$ -	
Non-Operating Expense	5,742,894.87	-	-	-	
Major Maintenance Reserve Revenue	302,249.94	309,000.00	309,000.00	-	0.0%
Major Maintenance Reserve Expense	(287,793.81)	(460,470.00)	(431,020.00)	29,450.00	-6.4%
Emergency Reserve Revenue	50,000.04	50,000.00	50,000.00	-	0.0%
Emergency Reserve Expense	-	-	-	-	
Capital Reserve Revenue	518,862.54	530,450.00	530,450.00	-	0.0%
Capital Reserve Expense	(5,861,732.18)	(215,000.00)	(982,000.00)	(767,000.00)	356.7%
Change in Net Assets	\$ 4,779,905.92	\$ 198,020.00	\$ (591,300.00)	\$ (789,320.00)	-398.6%
<u>Rate Revenue</u>					
Revenue Requirements:					
Operating Expense	\$ 22,093,503.00	\$ 27,112,920.00	\$ 28,126,360.00	\$ 1,013,440.00	3.7%
Non-Operating	-	-	-	-	
Major Maintenance	302,249.94	309,000.00	309,000.00	-	0.0%
Emergency Maintenance	50,000.04	50,000.00	50,000.00	-	0.0%
Capital	518,862.54	530,450.00	530,450.00	-	0.0%
Total Revenue Requirements	\$ 22,964,615.52	\$ 28,002,370.00	\$ 29,015,810.00	\$ 1,013,440.00	3.6%
Non-Rate Revenue	\$ (455,518.01)	\$ (696,360.00)	\$ (647,340.00)	\$ 49,020.00	-7.0%
Rate Required Revenue	\$ 22,509,097.51	\$ 27,306,010.00	\$ 28,368,470.00	\$ 1,062,460.00	3.9%

Monthly Charge Breakdown

SEWAGE CHARGE

Flat Rate Sewage Charge	Effective July 1, 2021
	<u>Annual Charge</u>
GLWA Purchased Expense	\$ 21,355,800.00
OCWRC Operating Expense	2,125,280.00
Non-Operating	500,000.00
Major Maintenance Reserve	689,590.00
Emergency Maintenance Reserve	100,000.00
Capital Improvement Reserve	1,350,000.00
Less: Misc. Revenue	(139,110.00)
Total:	\$ 25,981,560.00

	Effective July 1, 2021	Effective July 1, 2021
	<u>Annual Charge</u>	<u>Monthly Charge</u>
City of Berkley	\$ 1,081,873	\$ 90,156.09
Village of Beverly Hills	70,930	5,910.84
City of Birmingham	790,358	65,863.17
City of Clawson	789,581	65,798.42
City of Ferndale	1,438,339	119,861.58
City of Hazel Park	1,056,671	88,055.92
City of Huntington Woods	487,934	40,661.16
City of Madison Heights	2,514,496	209,541.33
City of Oak Park	2,001,879	166,823.25
City of Pleasant Ridge	230,976	19,248.00
City of Royal Oak	4,944,811	412,067.59
Royal Oak Twp	244,747	20,395.58
City of Southfield	1,697,116	141,426.34
City of Troy	8,312,022	692,668.50
Detroit Zoological Park	279,822	23,318.50
County of Oakland	-	-
Rackham Golf Course	40,012	3,334.34
State Of Michigan	-	-
Total	\$ 25,981,567	\$ 2,165,130.61

STORM CHARGE

Flat Rate Storm Charge	Effective July 1, 2021
	<u>Annual Charge</u>
GLWA Purchased Expense	\$ 24,558,040.00
OCWRC Operating Expense	3,568,320.00
Non-Operating	-
Major Maintenance	309,000.00
Emergency Maintenance	50,000.00
Capital Improvement	530,450.00
Less: Interest Income	<u>(647,340.00)</u>
Total:	\$ 28,368,470.00

	Effective July, 1 2021	Effective July 1, 2021
	<u>Annual Charge</u>	<u>Monthly Charge</u>
City of Berkley	\$ 1,840,973	\$ 153,414.42
Village of Beverly Hills	237,415	19,784.59
City of Birmingham	1,385,432	115,452.66
City of Clawson	1,681,173	140,097.76
City of Ferndale	2,918,689	243,224.09
City of Hazel Park	639,823	53,318.58
City of Huntington Woods	699,878	58,323.16
City of Madison Heights	1,855,582	154,631.83
City of Oak Park	3,868,976	322,414.67
City of Pleasant Ridge	379,855	31,654.58
City of Royal Oak	8,426,231	702,185.91
Royal Oak Twp	362,407	30,200.59
City of Southfield	2,188,797	182,399.75
City of Troy	703,510	58,625.83
Detroit Zoological Park	95,430	7,952.50
County of Oakland	433,301	36,108.42
Rackham Golf Course	54,270	4,522.50
State Of Michigan	<u>596,731</u>	<u>49,727.59</u>
Total	\$ 28,368,473	\$ 2,364,039.43

Share & Monthly Charge Comparison

SEWAGE CHARGE

	FY 2020-21 (July - June)		FY 2021-22 (July - June)		% Change Mthly Charge
	Share % of System	Monthly Charge	Share % of System	Monthly Charge	
City of Berkley	4.021%	\$ 90,697.33	4.164%	\$ 90,156.09	-0.6%
Village of Beverly Hills	0.271%	6,112.75	0.273%	5,910.84	-3.3%
City of Birmingham	3.026%	68,254.26	3.042%	65,863.17	-3.5%
City of Clawson	2.973%	67,058.75	3.039%	65,798.42	-1.9%
City of Ferndale	5.454%	123,019.99	5.536%	119,861.58	-2.6%
City of Hazel Park	4.094%	92,344.00	4.067%	88,055.92	-4.6%
City of Huntington Woods	1.837%	41,435.25	1.878%	40,661.16	-1.9%
City of Madison Heights	10.279%	231,852.41	9.678%	209,541.33	-9.6%
City of Oak Park	7.733%	174,425.00	7.705%	166,823.25	-4.4%
City of Pleasant Ridge	0.887%	20,007.26	0.889%	19,248.00	-3.8%
City of Royal Oak	19.207%	433,231.74	19.032%	412,067.59	-4.9%
Royal Oak Twp	0.945%	21,315.42	0.942%	20,395.58	-4.3%
City of Southfield	6.606%	149,004.51	6.532%	141,426.34	-5.1%
City of Troy	31.431%	708,955.49	31.992%	692,668.50	-2.3%
Detroit Zoological Park	1.098%	24,766.42	1.077%	23,318.50	-5.8%
County of Oakland	-	-	-	-	-
Rackham Golf Course	0.138%	3,112.75	0.154%	3,334.34	7.1%
State Of Michigan	-	-	-	-	-
Total	100.00%	\$ 2,255,593.33	100.00%	\$ 2,165,130.61	-4.0%

Charges have been rounded

George W. Kuhn Drainage District, Effective July 1, 2021

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Share & Monthly Charge Comparison

STORM CHARGE

	FY 2020-21 (July - June)		FY 2021-22 (July - June)		% Change Mthly Charge
	Share % of System	Monthly Charge	Share % of System	Monthly Charge	
City of Berkley	6.4895%	\$ 147,668.76	6.4895%	\$ 153,414.42	3.9%
Village of Beverly Hills	0.8369%	19,043.67	0.8369%	19,784.59	3.9%
City of Birmingham	4.8837%	111,128.66	4.8837%	115,452.66	3.9%
City of Clawson	5.9262%	134,850.84	5.9262%	140,097.76	3.9%
City of Ferndale	10.2885%	234,114.75	10.2885%	243,224.09	3.9%
City of Hazel Park	2.2554%	51,321.67	2.2554%	53,318.58	3.9%
City of Huntington Woods	2.4671%	56,138.91	2.4671%	58,323.16	3.9%
City of Madison Heights	6.5410%	148,840.50	6.5410%	154,631.83	3.9%
City of Oak Park	13.6383%	310,339.49	13.6383%	322,414.67	3.9%
City of Pleasant Ridge	1.3390%	30,469.00	1.3390%	31,654.58	3.9%
City of Royal Oak	29.7028%	675,887.40	29.7028%	702,185.91	3.9%
Royal Oak Twp	1.2775%	29,069.42	1.2775%	30,200.59	3.9%
City of Southfield	7.7156%	175,568.49	7.7156%	182,399.75	3.9%
City of Troy	2.4799%	56,430.16	2.4799%	58,625.83	3.9%
Detroit Zoological Park	0.3364%	7,654.67	0.3364%	7,952.50	3.9%
County of Oakland	1.5274%	34,756.09	1.5274%	36,108.42	3.9%
Rackham Golf Course	0.1913%	4,353.08	0.1913%	4,522.50	3.9%
State Of Michigan	2.1035%	47,865.26	2.1035%	49,727.59	3.9%
Total	100.00%	\$ 2,275,500.82	100.00%	\$ 2,364,039.43	3.9%

Charges have been rounded

**OAKLAND COUNTY WATER RESOURCES COMMISSIONER
GEORGE W. KUHN DRAINAGE DISTRICT
SCHEDULE OF RATES AND CHARGES, EFFECTIVE JULY 1, 2021**

1. Sewerage Disposal Charge

<u>Municipality</u>	Effective July 1, 2021 <u>Monthly</u>
City of Berkley	\$ 90,156.09
Village of Beverly Hills	5,910.84
City of Birmingham	65,863.17
City of Clawson	65,798.42
City of Ferndale	119,861.58
City of Hazel Park	88,055.92
City of Huntington Woods	40,661.16
City of Madison Heights	209,541.33
City of Oak Park	166,823.25
City of Pleasant Ridge	19,248.00
City of Royal Oak	412,067.59
Royal Oak Twp	20,395.58
City of Southfield	141,426.34
City of Troy	692,668.50
Detroit Zoological Park	23,318.50
County of Oakland	-
Rackham Golf Course	3,334.34
State Of Michigan	-
Toal:	<u><u>\$ 2,165,130.61</u></u>

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

2. Pollutant Surcharge - APPROVED BY GLWA

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

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

<u>Pollutant</u>	<u>Effective July 1, 2021</u> <u>Total Charge Per lb.</u> <u>of Excess Pollutants</u>
Biochemical Oxygen Demand (BOD)	\$ 0.347
Total Suspended Solids (TSS)	0.476
Phosphorus (PHOS)	6.368
Fats, Oils & Grease (FOG)	0.111

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

3. Industrial Waste Control Charge - APPROVED BY GLWA

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

<u>Non-Residential</u> <u>Meter Size</u> <u>in Inches</u>	<u>Effective July 1, 2021</u> <u>\$/Month</u>
5/8	\$ 3.54
3/4	5.31
1	8.85
1 1/2	19.47
2	28.32
3	51.33
4	70.80
6	106.20
8	177.00
10	247.80
12	283.20
14	354.00
16	424.00
18	495.60
20	566.40
24	637.20
30	708.00
36	778.80
48	849.60

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

George W. Kuhn Drainage District
Schedule of Rates and Charges

4. **Flat Rate Storm Charge**

<u>Municipality</u>	Effective July 1, 2021
	<u>Monthly</u>
City of Berkley	\$ 153,414.42
Village of Beverly Hills	19,784.59
City of Birmingham	115,452.66
City of Clawson	140,097.76
City of Ferndale	243,224.09
City of Hazel Park	53,318.58
City of Huntington Woods	58,323.16
City of Madison Heights	154,631.83
City of Oak Park	322,414.67
City of Pleasant Ridge	31,654.58
City of Royal Oak	702,185.91
Royal Oak Twp	30,200.59
City of Southfield	182,399.75
City of Troy	58,625.83
Detroit Zoological Park	7,952.50
County of Oakland	36,108.42
Rackham Golf Course	4,522.50
State Of Michigan	49,727.59
Total:	<u><u>\$ 2,364,039.43</u></u>

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

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

Combined Monthly Sewer and Storm Charges

<u>Municipality</u>	<u>Effective July 1, 2021</u> <u>Monthly</u>
City of Berkley	\$ 243,570.51
Village of Beverly Hills	25,695.43
City of Birmingham	181,315.83
City of Clawson	205,896.18
City of Ferndale	363,085.67
City of Hazel Park	141,374.50
City of Huntington Woods	98,984.32
City of Madison Heights	364,173.16
City of Oak Park	489,237.92
City of Pleasant Ridge	50,902.58
City of Royal Oak	1,114,253.50
Royal Oak Twp	50,596.17
City of Southfield	323,826.09
City of Troy	751,294.33
Detroit Zoological Park	31,271.00
County of Oakland	36,108.42
Rackham Golf Course	7,856.84
State Of Michigan	49,727.59
Total:	<u><u>\$ 4,529,170.04</u></u>

STATE OF MICHIGAN

IN THE CIRCUIT COURT FOR THE COUNTY OF OAKLAND

TINA POLK, RICHARD NEWTON, and all
others similarly situated,

Plaintiffs,

v.

Honorable Phyllis C. McMillen

Case No. 2015-147795-NZ

CITY OF OAK PARK, COUNTY OF OAKLAND,
GEORGE W. KUHN DRAINAGE DISTRICT,
and OAKLAND COUNTY WATER RESOURCES
COMMISSIONER JIM NASH,

Defendants.

_____ /

CAROL CHADWELL, JUSTIN DUFF, and all
others similarly situated,

Plaintiffs,

v.

Honorable Phyllis C. McMillen

Case No. 2015-147794-NZ

CITY OF MADISON HEIGHTS, COUNTY OF
OAKLAND, GEORGE W. KUHN DRAINAGE
DISTRICT, and OAKLAND COUNTY WATER
RESOURCES COMMISSIONER JIM NASH,

Defendants.

_____ /

KEVIN HELME,
and all others similarly situated,

Plaintiffs,

v.

Honorable Phyllis C. McMillen

Case No. 2016-152918-NZ

CITY OF CLAWSON, COUNTY OF
OAKLAND, GEORGE W. KUHN DRAINAGE
DISTRICT, and OAKLAND COUNTY WATER
RESOURCES COMMISSIONER JIM NASH,

Defendants.

_____ /

**ORDER APPROVING SETTLEMENT AGREEMENT, AWARDING
ATTORNEYS' FEES TO PLAINTIFFS' CLASS COUNSEL,
AND ENTERING FINAL CONSENT JUDGMENT
[CAPTION CONTINUED ON NEXT PAGES]**

JILL KOTSIS, KEVIN GALLATIN,
and all others similarly situated,

Plaintiffs,

v.

CITY OF ROYAL OAK, COUNTY OF
OAKLAND, GEORGE W. KUHN DRAINAGE
DISTRICT, and OAKLAND COUNTY WATER
RESOURCES COMMISSIONER JIM NASH,

Defendants.

Honorable Phyllis C. McMillen

Case No. 2016-152906-NZ

DEANNA DOOT and ROBYN DOHNKE,
and all others similarly situated,

Plaintiffs,

v.

CITY OF BERKLEY, COUNTY OF
OAKLAND, GEORGE W. KUHN DRAINAGE
DISTRICT, and OAKLAND COUNTY WATER
RESOURCES COMMISSIONER JIM NASH,

Defendants.

Honorable Phyllis C. McMillen

Case No. 2017-157459-NZ

TIMOTHY JONES and LUANN JONES,
and all others similarly situated,

Plaintiffs,

v.

CITY OF FERNDAL, COUNTY OF
OAKLAND, GEORGE W. KUHN DRAINAGE
DISTRICT, and OAKLAND COUNTY WATER
RESOURCES COMMISSIONER JIM NASH,

Defendants.

Honorable Phyllis C. McMillen

Case No. 2017-157469-NZ

ERIC BARNWELL, KRISTEN BARNWELL,

and all others similarly situated,

Plaintiffs,

v.

CITY OF TROY, COUNTY OF
OAKLAND, GEORGE W. KUHN DRAINAGE
DISTRICT, and OAKLAND COUNTY WATER
RESOURCES COMMISSIONER JIM NASH,

Defendants.

Honorable Phyllis C. McMillen

Case No. 2017-157537-NZ

RON LAWLER, CINDY LAWLER,
MICHAEL HUERTA, and all others
similarly situated,

Plaintiffs,

v.

CITY OF HAZEL PARK, COUNTY OF
OAKLAND, GEORGE W. KUHN DRAINAGE
DISTRICT, and OAKLAND COUNTY WATER
RESOURCES COMMISSIONER JIM NASH,

Defendants.

Honorable Phyllis C. McMillen

Case No. 2017-157534-NZ

LINDA FINKELBERG AND HARVEY FINKELBERG,
and all others similarly situated,

Plaintiffs,

v.

CITY OF HUNTINGTON WOODS, COUNTY OF
OAKLAND, GEORGE W. KUHN DRAINAGE
DISTRICT, and OAKLAND COUNTY WATER
RESOURCES COMMISSIONER JIM NASH,

Defendants.

Honorable Phyllis C. McMillen

Case No. 2017-157533-NZ

LINDA PHILLIPS, VICTORIA CWYCYSHYN,
and all others similarly situated,

Plaintiffs,

v.

Honorable Phyllis C. McMillen

Case No. 2017-157620-NZ

CITY OF PLEASANT RIDGE, COUNTY OF
OAKLAND, GEORGE W. KUHN DRAINAGE
DISTRICT, and OAKLAND COUNTY WATER
RESOURCES COMMISSIONER JIM NASH,

Defendants.

SHEILA JACOB
and all others similarly situated,

Plaintiffs,

v.

Honorable Phyllis C. McMillen

Case No. 2019-178474-NZ

CITY OF BERKLEY,

Defendant.

**ORDER APPROVING SETTLEMENT AGREEMENT, AWARDING
ATTORNEYS' FEES TO CLASS COUNSEL,
AND ENTERING FINAL JUDGMENT**

At a session of said Court held in the County of
Oakland, City of Pontiac, State of Michigan, on
4/8/2021

PRESENT: PHYLLIS C MCMILLEN
Circuit Court Judge

This matter having come before the Court on Plaintiffs' Motion for Final Approval of the Class Action Settlement Agreement ("Motion"), as set forth in the Settlement Agreement, due and adequate notice having been given, and the Court having fully considered the briefs and being duly advised in the premises and good cause appearing therefore, the Court hereby grants the Motion as set forth in this Order Approving Settlement Agreement, Awarding Attorneys' Fees to Class Counsel, and entering Final Consent Judgment ("Order"). Terms and phrases in this Order shall

have the same meaning as in the Settlement Agreement.

IT IS HEREBY ORDERED:

1. The following cases were consolidated for settlement purposes : (1) *Polk, et al. v City of Oak Park, et al.*, Oakland County Circuit Court Case No. 2015-147795-NZ, (2) *Chadwell, et al. v City of Madison Heights, et al.*, Oakland County Circuit Court Case No. 2015-147794-NZ, (3) *Helme v. City of Clawson, et al.*, Oakland County Circuit Court Case No. 2016-152918-NZ, (4) *Kotsis, et al. v City of Royal Oak, et al.*, Oakland County Circuit Court Case No. 2016-152906-NZ, (5) *Doot, et al. v City of Berkley, et al.*, Oakland County Circuit Court Case No. 2017-157459-NZ, (6) *Jones, et al. v City of Ferndale, et al.*, Oakland County Circuit Court Case No. 2017-157469-NZ, (7) *Barnwell, et al. v City of Troy, et al.*, Oakland County Circuit Court Case No. 2017-157537-NZ, (8) *Lawler, et al. v City of Hazel Park, et al.*, Oakland County Circuit Court Case No. 2017-157534-NZ, (9) *Finkelberg, et al. v City of Huntington Woods, et al.*, Oakland County Circuit Court Case No. 2017-157533-NZ, (10) *Phillips, et al. v City of Pleasant Ridge, et al.*, Oakland County Circuit Court Case No. 2017-157620-NZ (collectively, “2014 Actions”), and (11) *Jacob, et al. v. City of Berkley*, Oakland County Circuit Court Case No. 2019-178474-NZ (“2017 Action”) (hereinafter, 2014 Actions and 2017 Action are referred to as “the Actions”).

2. Appointed counsel for the class is David R. Dubin, Liddle & Dubin, P.C., 975 E. Jefferson Ave., Detroit, MI 48207.

4. “Class” shall mean, for settlement purposes only and for no other purpose, any

Person including, but not limited to, any Person listed in Exhibit 1 of the Settlement Agreement, or otherwise disclosed during the course of the 2014 Actions, the Hanover Cases (defined below) or the 2017 Action, who claims that a Written Notice of Claim regarding the claimed Sewage Disposal System Event occurring on or about August 11, 2014 was served on the County Defendants and/or served on the City Defendant within which the Claimed Address is located or who claims that a Written Notice of Claim regarding the claimed Sewage Disposal System Event occurring on or about August 28, 2017 was served on the City of Berkley..

5. Only Class Members from 10 households has sought to be excluded from the Settlement, and no objections to the Settlement have been filed with the Court by any Class Member.

6. Subject to the Court's approval pursuant to Michigan law, Class Counsel and Defendants' Counsel have reached an agreement to settle and resolve the Actions pursuant to the terms and conditions of the Settlement Agreement. The Court has jurisdiction over the parties to, and the subject matter of, the Actions.

7. The Settlement Agreement requires Eleven Million Five Hundred Thousand Dollars (\$11,500,000) to be paid under the terms and conditions of the Settlement Agreement by Defendants. The Settlement Agreement also requires One Million Five Hundred Thousand Dollars (\$1,500,000) in Improvement Measures to be conducted under the terms and conditions of the Settlement Agreement by City Defendants. The Settlement Agreement also requires Class Counsel to make deposits from the Settlement Fund to the Sewage System Disbursement Fund. The Settlement Fund shall be distributed as follows:

- A. Class Counsel shall receive reimbursement for their reasonable attorneys' fees, costs, and expenses for their efforts in the protection and the advancement of the interests of the Class. Class Counsel shall receive 1/3 of the Total Settlement Amount following the subtraction of litigation costs and expenses as reasonable attorneys' fees as determined by the Court at the hearing in this matter held on April 8, 2021. Class Counsel's request for litigation costs and expenses in the amount of \$232,220.88 is approved.
- B. As further detailed in the Settlement Agreement, to be eligible to participate in the distribution of the Settlement Fund, a Class Member must submit a timely and valid Claim Form to Class Counsel as more fully described in the Settlement Agreement. The Claim Form with any required supporting documentation must have been postmarked no later than 90 days from the entry of the Order Preliminarily Approving Class Action Settlement, Approving Procedure and Form of Notice and Scheduling Final Fairness Hearing ("Preliminary Approval Order"). After the amount of all claims has been established, Class Counsel shall pay all such claims in accordance with the terms and conditions of the Settlement Agreement.
- C. Each Class Representative shall receive \$500 as Incentive Awards for their services on behalf of the Class.
- D. As further detailed in the Settlement Agreement, Class Counsel shall cause the deposits from the Settlement Fund to the Sewage System Disbursement Fund to occur.

8. The Sewage System Disbursement Fund shall be distributed to the Defendants by Class Counsel for the operation, maintenance, and administration of their respective sewage systems based on the Sewage System Disbursement Protocol pursuant to the terms and conditions set forth in the Settlement Agreement and no such funds shall be used to fund the Improvement Measures required under the Settlement Agreement.

9. Consistent with the above, this Settlement Agreement does not result in the existence of Residual Funds as defined by MCR 3.501(D)(6) rather the Settlement Fund, including any interest, will be disbursed to Class Counsel for attorneys' fees, costs, and expenses, disbursed

to the Class Representatives as Incentive Awards, disbursed to Class Members consistent with the terms and conditions of the Settlement Agreement, or be deposited in the Sewage System Disbursement Fund consistent with the terms and conditions of the Settlement Agreement and ultimately be the subject of Sewage System Disbursements to be used by the governmental agencies receiving funds for the operation, maintenance, and administration of their respective sewage systems subject to no such funds being used to fund the Improvement Measures required under the Settlement Agreement.

10. Upon due consideration of Class Counsel's Motion for Preliminary Approval of Class Action Settlement, the Court determined that there was sufficient basis to conclude preliminarily that the Settlement was fair, adequate, and reasonable. Without the Settlement, the Class would face significant risks involved in litigation. The Court accordingly entered its Preliminary Approval Order.

11. The Preliminary Approval Order provided that a final fairness hearing would be held to determine whether the Settlement should be finally approved by the Court as fair, adequate, and reasonable; to determine whether the distribution of the Settlement Fund as set forth in the Settlement Agreement should be approved; and to determine the other matters arising under the Settlement and MCR 3.501. The Preliminary Approval Order directed that Class Counsel cause to be submitted to the Class, via First Class Mail, the Long Form Notice, and that the Long Form Notice, along with copies of the Settlement Agreement, Claim Form-B and Claim Form-D be posted on the website www.LDClassAction.com. The Preliminary Approval Order further directed that Class Counsel cause Publication Notice to be submitted for publication in The Oakland Press. The Preliminary Approval Order also directed that Class Counsel cause to be

submitted Email Notice to the Class who have previously submitted a valid email address to Class Counsel.

12. Class Counsel has filed with the Court an affidavit confirming that Notice was distributed, pursuant to and in compliance with the Preliminary Approval Order. The final fairness hearing was convened as scheduled on April 8, 2021 at 8:30 a.m.

13. The Court finds that the Notice Plan afforded adequate protections to the Class and provides the basis for the Court to make an informed decision regarding approval of the Settlement based on the responses of the Class. The Court further finds that the Notice was reasonable and the best practicable notice under the circumstances, and satisfied all of the requirements of MCR 3.501, all substantive and procedural due process rights guaranteed by the United States Constitution, and any other applicable law. The Court finds that Notice of the Settlement was given to the Class in accord with the Preliminary Approval Order.

14. The Court has reviewed the steps and procedures taken pursuant to and in compliance with the Preliminary Approval Order, has conducted the final fairness hearing, and has given due consideration to all submissions filed or presented on Class Counsel's Motion, including submissions received during the course of the final fairness hearing.

15. The Court finds that the Settlement, upon the terms and conditions set forth in the parties' Settlement Agreement, attached as Exhibit A to the Motion, is fair, adequate, and reasonable. The Court accordingly grants final approval of the Settlement in accordance with the terms and conditions, without modification, of the Settlement Agreement, which is incorporated

herein, and orders that the Settlement be consummated according to its terms and conditions and as prescribed therein.

16. The Court approves and orders the payment of reasonable attorneys' fees to Class Counsel in the amount of 1/3 of the Total Settlement Amount less costs and expenses, as provided by the terms and conditions of the Settlement Agreement. The Actions have been actively litigated for years. The Settlement was a result of arms-length settlement negotiations. Class Counsel has at all times pursued the best interests of the Class, and the Settlement secures benefits for the Class. The proposed distribution to Class Counsel is fair and reasonable in light of all of the factors, including the time and labor required; the novelty, difficulty, and complexity of the issues; the skill required to perform the legal services properly; the fees customarily awarded for similar services; the fact that the fee was contingent; the amount in controversy; and the results obtained on behalf of the Class.

17. The Releases in the Settlement Agreement are incorporated herein, including without limitation, the following: (1) Plaintiffs and each member of the Class (including their past, present or future agents, legal representatives, trustees, parents, estates, heirs, executors and administrators) agree that they release and forever discharge and covenant not to sue Defendants, including Defendants' officers, employees, directors, attorneys, affiliates, predecessors, successors, assigns and insurers, from all 2014 Claims and 2017 Claims; (2) The Class Representative, and each Class Member who does not opt out of this Settlement, represent that the 2014 Actions, the 2017 Action, and the Hanover Cases do not allege claims for sickness, disease or physical injury and further that, as of the date of this Agreement, they have not been diagnosed with, are not aware of, and do not have any symptoms that they suspect could be associated with

any sickness, disease or physical injury which they are asserting were caused by the action or inaction of the Defendants; and (3) Defendants release and forever discharge and covenant not to sue one another, including Defendants' officers, employees, directors, attorneys, affiliates, predecessors, successors, assigns and insurers, from any claims against one another, if any, for the expense of litigating the 2014 Actions, the expense of litigating the 2017 Action, the expense of settling the 2014 Actions under the terms and conditions of the Settlement Agreement, and the expense of settling the 2017 Action under the terms and conditions of the Settlement Agreement, as to any Releases being provided by any Class Member to the Defendants under the terms and conditions of the Settlement Agreement, including as to indemnification, contribution, or any other basis provided for under law including Public Act 222.

18. Plaintiffs, Defendants, Class Counsel, and Defendants' Counsel are released from any liability in connection with the administration of the Settlement, the distribution of settlement proceeds and the procedures therefore, except for any proven willful misconduct.

19. The Court hereby vacates the Court's Opinion and Order dated November 20, 2018 entered as to the 2014 Actions.

20. This Order constitutes a final and complete adjudication of the Actions, and is fully binding on Plaintiffs, Defendants, and the Class. Without affecting the finality of this Order, the Court retains exclusive jurisdiction to determine such matters as may arise under the Settlement or this Order or during the administration of the Settlement which is now finally accepted and approved by the Court, including the interpretation and implementation of the Settlement Agreement and the authority to amend this Order as necessary.

21. There is no just reason for delay, the Court directs entry of judgment by this Order, and this judgment is final and appealable.

22. This is a final order, resolves the Actions, and closes the Actions.

SO ORDERED.

/s/ Phyllis McMillen
Honorable Phyllis C. McMillen
Oakland County Circuit Court Judge ka

Dated: 4/8/2021, 2021

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

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

DATE: April 27, 2021

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

Payable To	Ref No.	For	Amount
FK Engineering Associates	TBP	Invoice # 20-060-003 - Contracted Services - 11/08/20 - 12/19/20	\$ 5,736.75
FK Engineering Associates	TBP	Invoice # 20-060-006 - Contracted Services - 02/14/21 - 03/13/21	\$ 7,715.95
FK Engineering Associates	TBP	Invoice # 20-060-007 - Contracted Services - 03/14/21 - 04/10/21	\$ 2,257.50
		Subtotal Project # 1-2847	\$ 15,710.20
Pipeline Management Co Inc	TBP	Invoice # 2021-020 - Contracted Services - 02/15-02/26/21	\$ 25,096.73
		Subtotal Project # 1-3261	\$ 25,096.73
OHM	TBP	Invoice # 332675 - Professional Services - 03/27/21	\$ 1,417.50
Dickinson Wright, PLLC	TBP	Invoice # 1564480 - Legal Services - 02/28/2021	749.50
Dickinson Wright, PLLC	TBP	Invoice # 1564481 - Legal Services - 02/28/2021	4,016.50
Dickinson Wright, PLLC	TBP	Invoice # 1564484 - Legal Services - 02/28/2021	838.38
Dickinson Wright, PLLC	TBP	Invoice # 1564492 - Legal Services - 02/28/2021	54.95
Dickinson Wright, PLLC	TBP	Invoice # 1564494 - Legal Services - 02/28/2021	191.96
Dickinson Wright, PLLC	TBP	Invoice # 1564499 - Legal Services - 02/28/2021	69.12
Dickinson Wright, PLLC	TBP	Invoice # 1564500 - Legal Services - 02/28/2021	42.82
Dickinson Wright, PLLC	TBP	Invoice # 1564506 - Legal Services - 02/28/2021	81.13
Dickinson Wright, PLLC	TBP	Invoice # 1564559 - Legal Services - 02/28/2021	22.76
Dickinson Wright, PLLC	TBP	Invoice # 1564561 - Legal Services - 02/28/2021	28.94
Dickinson Wright, PLLC	TBP	Invoice # 1564564 - Legal Services - 02/28/2021	7,564.50
		Subtotal	\$ 15,078.06
		Total	\$ 55,884.99

8. Schmid Drain

AGENDA

DRAINAGE BOARD FOR THE SCHMID DRAIN

April 27, 2021

1. Call meeting to order
2. Approve minutes of meeting of December 15, 2020
3. Public Comments
4. Present Memorandum from Geoff Wilson, P.E., Drain Maintenance Engineer, and Drew Sandahl, P.E., Assistant Chief Engineer – Pump Maintenance, recommending the Board authorize CSM Mechanical to perform repairs for the base bid of \$7,380
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

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

December 15, 2020

A meeting of the Drainage Board for the Schmid Drain was held at 2:00 p.m. on the 15th of December, 2020. The meeting was conducted electronically via GoToMeeting in accordance with PA 228 of 2020.

The meeting was called to order by the Chairperson. The Board indicated where they were physically located at the time of the meeting as follows:

PRESENT: Jim Nash, Oakland County Water Resources Commissioner, participating from Farmington Hills, Michigan.

David Woodward, Chairperson of the Oakland County Board of Commissioners, participating from Royal Oak, Michigan.

Helaine Zack, Chairperson of the Finance Committee, Oakland County Board of Commissioners, participating from Huntington Woods, Michigan.

Minutes of the meeting held November 17, 2020 were presented for consideration. It was moved by Zack, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3
Nays - 0

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

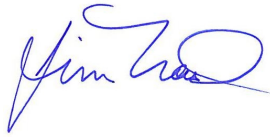
A Memorandum from Geoff Wilson, P.E., Drain Maintenance Engineer, and Drew Sandahl, P.E., Assistant Chief Engineer – Pump Maintenance, recommending the Board decline the tabled Rowe Engineering proposal dated October 9, 2020, and authorize Rowe Engineering to proceed per the proposal dated December 2, 2020 as part of their existing as-needed engineering services contract 4869 was presented. It was moved by Zack, supported by Woodward, to decline the tabled Rowe Engineering proposal dated October 9, 2020, and authorize Rowe Engineering to proceed per the proposal dated December 2, 2020 as part of their existing as-needed engineering services contract.

ADOPTED: Yeas - 3
Nays - 0

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

ADOPTED: Yeas - 3
Nays - 0

There being no further business, the meeting was adjourned.

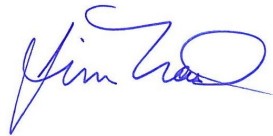
A handwritten signature in blue ink, appearing to read "Jim Nash", is positioned above a horizontal line.

Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the Schmid Drain, Oakland County, Michigan, held on the 15th day of December, 2020, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

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



Jim Nash, Chairperson

Dated: December 30 , 2020

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

TO: Jim Nash, Chairman – Schmid Drain Drainage Board

FROM: Geoff S. Wilson, P.E. – Drain Maintenance Engineer
M. Drew Sandahl, P.E. – Assistant Chief Engineer – Pump Maintenance

SUBJECT: Schmid Drain South Pump Station Valve Vault

DATE: April 27, 2021

The Oakland County Water Resources Pump Maintenance Unit observed leaking within a valve vault at the Schmid Drain south pump station. At the December 15, 2020 drainage board meeting the board authorized Rowe Engineering to provide construction drawings and specifications to address the leak.

Rowe Engineering completed development of these deliverables on March 22, 2021. The construction drawings included a base bid that would repair the leaking pipe section and an alternative that would provide long-term flow control capabilities. WRC utilized these documents to solicit bids from blanket order contractors. Bids were received on April 9, 2021.

WRC received bids from two contractors. Only one of the contractors bid on the alternative. The other contractor provided a solution in their base bid that could assist with long term-flow control. The bids are tabulated below:

Contractor	Base Bid	Alternative A
CSM Mechanical	\$7,380.00	\$82,680.00
Trojan Development	\$13,000.00	No Bid

CSM Mechanical indicated that their flow control solution is on the order of \$1,000. As such, the CSM Mechanical base bid provides the most cost-effective solution for both the repair and long-term maintenance.

Recommendation: Authorize CSM Mechanical to perform repairs for the base bid of \$7,380 per their bid dated April 8, 2021.

**PROPOSAL FOR THE CONSTRUCTION OF
Schmid Drain Pump Station Repair**

NAME OF BIDDER: CSM MECHANICAL LLC
 CONTACT NAME: CRAGG S. MOZZ
 ADDRESS: 1400 HUCKLEBERRY VALLEY DRIVE, FENTON, MI 48430
 DATE: 04-08-2021 TELEPHONE NO. 248-302-2028
 CONTACT NAME EMAIL: CRAGG.MOZZ@CSMMECHANICAL.COM

BID SHEET**BASE BID**

Item No.	Description	Quantity	Unit	Unit Price	Amount
1	Mobilization	1	LS		
2	Flow Control	1	LS		
3	Replace 24-inch Pipe Segment	1	LS		

TOTAL BASE BID CONTRACT PRICE \$ *1,300.00
 (Items 1 thru 3)

ALTERNATIVE A

Item No.	Description	Quantity	Unit	Unit Price	Amount
4	Mobilization (in addition to base bid)	1	LS		
5	Excavation	1	LS		6,000.00
6	Concrete Support Installation	2	EA		600.00
7	Installation of 30-inch Gate Valve, associated piping, and restraint	1	LS		
8	Installation of 12-inch Gate Valve, associated piping, and restraint	1	LS		
9	Backfill	1	LS		
10	Restoration / ASPHALT / CONCRETE CURBING	1	LS		5,000.00

TOTAL ALTERNATIVE A BID CONTRACT PRICE \$ *15,300.00
 (Items 4 thru 10)

COMBINED BID CONTRACT PRICE \$ *82,600.00
 (Items 1 thru 10)

Note: In case of discrepancy, unit prices shall be used to determine the total amount of this bid.

TAXES

The foregoing unit prices include all applicable Federal, State and Local taxes.

ADDENDA

This Proposal is based on the following Addenda in the table below:

Addendum Number	Date Issued
NONE	

9. Borden Drain

AGENDA

DRAINAGE BOARD FOR THE BORDEN DRAIN

April 27, 2021

1. Call meeting to order
2. Approve minutes of meeting of February 23, 2021
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$8,400
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

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

February 23, 2021

A meeting of the Drainage Board for the Borden Drain was held at 2:00 p.m. on the 23rd of February, 2021. The meeting was conducted electronically via GoToMeeting in accordance with PA 267 of 1976, as amended, and/or as otherwise provided by law.

The meeting was called to order by the Chairperson. The Board indicated where they were physically located at the time of the meeting as follows:

PRESENT: Jim Nash, Oakland County Water Resources Commissioner, participating from Farmington Hills, Michigan.

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners, participating from Novi, Michigan.

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

Minutes of the meeting held June 26, 2018 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.

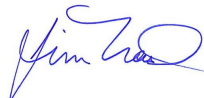
A Memorandum from Geoff Wilson, Drain Maintenance Engineer, dated February 23, 2021 recommending the Board authorize Trojan Development Services to remove and dispose of sediment per their existing as-needed services contract for an amount not to exceed \$52,189.17 was presented. It was moved by Markham, supported by Nash, to authorize Trojan Development Services to remove and dispose of sediment per their existing as-needed services contract for an amount not to exceed \$52,189.17 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.

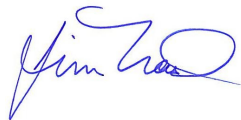


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the Borden Drain, Oakland County, Michigan, held on the 23rd day of February, 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 Borden Drain Drainage District.



Jim Nash, Chairperson

Dated: March 1 , 2021

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

Assessment for estimated maintenance expenses for fiscal years: 2021 through 2023

Date last assessment approved:	N/A	
Last Assessment:		N/A
Current Available Cash:		\$71

Expenditure History:	Fiscal Year	Amount
	2014	\$705
	2015	\$1,544
	2016	\$956
	2017	\$1,574
	2018	\$4,697
	2019	\$2,220
	2020	\$1,671

Estimated Expenditures:	Year	Amount
	2021	\$2,800
	2022	\$2,800
	2023	\$2,800
	Total	\$8,400

Recommended Assessment:

Current Cash Deficit	\$0
Total Anticipated Expenses 2021 - 2023	\$8,400
Proposed Special Project Expenses	\$0
TOTAL RECOMMENDED ASSESSMENT	\$8,400

Prepared by: Michael R. McMahon Date: April 27, 2021
Michael R. McMahon, P.E. - Chief Engineer

Approved by: Steven A. Korth Date: April 27, 2021
Steven A. Korth, P.E. - Manager

Note: Current Available Cash as of February 28, 2021, Fiscal Services Division Report.

SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE OF THE BORDEN DRAIN

Public Corporation	*Percentage of Apportionment	Total Amount of Assessment	Payment #1	Payment #2	Payment #3
City of Rochester Hills	96.4900%	\$ 8,105.16	\$ 8,105.16	-	-
County of Oakland	1.4200%	\$ 119.28	\$ 119.28	-	-
State of Michigan	2.0900%	\$ 175.56	\$ 175.56	-	-
<hr/>					
Total	100.000%	\$ 8,400.00	\$ 8,400.00	\$ -	\$ -

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

Assessment Payment Due Date(s): Payment #1 05/31/2021

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Borden Drain for the fiscal years 2021- 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 Borden Drain

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

Jim Nash
Chairman of the Drainage Board for the Borden Drain

10. Greenacre Drain

AGENDA

DRAINAGE BOARD FOR THE GREENACRE DRAIN

April 27, 2021

1. Call meeting to order
2. Approve minutes of meeting of August 28, 2018
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$3,845
5. Other business
6. Approve pro rata payment to Drainage Board Members
7. Adjourn

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

August 28, 2018

A meeting of the Drainage Board for the Greenacre Drain was held at the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 28th day of August, 2018.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

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

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

Minutes of the meeting held March 24, 2009 were presented for consideration. It was moved by Middleton, supported by Nash, that the minutes be approved.

ADOPTED: Yeas - 2
Nays - 0

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

A Maintenance Assessment Recommendation and Special Assessment Roll for the Greenacre Drain in the amount of \$8,419 (as attached) were presented. It was moved by Middleton, supported by Nash, to adopt the Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$8,419 as presented

ADOPTED: Yeas - 2
Nays - 0

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

ADOPTED: Yeas - 2
Nays - 0

There being no further business, the meeting was adjourned.

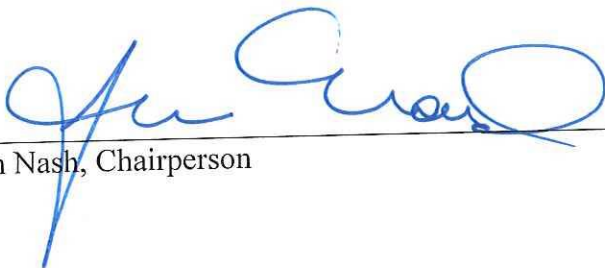


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Greenacre Drain, Oakland County, Michigan, held on the 28th day of August, 2018, 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 Greenacre Drain Drainage District.



Jim Nash, Chairperson

Dated: September 7, 2018

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

Assessment for current fund deficit and estimated maintenance expenses for fiscal years: 2021 through 2023

Date last assessment approved:	08/28/18	
Last Assessment:		\$8,419
Current Available Cash:		(\$245)

Expenditure History:	Fiscal Year	Amount
	2014	\$741
	2015	\$896
	2016	\$783
	2017	\$767
	2018	\$1,076
	2019	\$1,344
	2020	\$1,576

Estimated Expenditures:	Year	Amount
	2021	\$1,200
	2022	\$1,200
	2023	\$1,200
	Total	\$3,600

Recommended Assessment:

Current Cash Deficit	\$245
Total Anticipated Expenses 2021 - 2023	\$3,600
Proposed Special Project Expenses	\$0
TOTAL RECOMMENDED ASSESSMENT	\$3,845

Prepared by: Michael R. McMahon Date: April 27, 2021
Michael R. McMahon, P.E. - Chief Engineer

Approved by: Steven Korth Date: April 27, 2021
Steven A. Korth, P.E. - Manager

Note: Current Available Cash as of February 28, 2021, Fiscal Services Division Report.

SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE OF THE GREENACRE DRAIN

Public Corporation	*Percentage of Apportionment	Total Amount of Assessment	Payment #1	Payment #2	Payment #3
City of Rochester Hills	90.6700%	\$ 3,486.26	\$ 3,486.26	-	-
County of Oakland	9.3300%	\$ 358.74	\$ 358.74	-	-
<hr/>					
Total	100.000%	\$ 3,845.00	\$ 3,845.00	\$ -	\$ -

*Apportionment based on Final Order of Apportionment dated 12/17/2002.

Assessment Payment Due Date(s): Payment #1 05/31/2021

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Greenacre Drain for the fiscal years 2021- 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 Greenacre Drain

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

Jim Nash
Chairman of the Drainage Board for the Greenacre Drain

11. Hamilton Relief Drain

AGENDA

DRAINAGE BOARD HAMILTON RELIEF DRAINS

April 27, 2021

1. Call meeting to order
2. Approve minutes of meeting of December 15, 2020
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$42,074
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

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

December 15, 2020

A meeting of the Drainage Board for the Hamilton Relief Drains was held at 2:00 p.m. on the 15th of December, 2020. The meeting was conducted electronically via GoToMeeting in accordance with PA 228 of 2020.

The meeting was called to order by the Chairperson. The Board indicated where they were physically located at the time of the meeting as follows:

PRESENT: Jim Nash, Oakland County Water Resources Commissioner, participating from Farmington Hills, Michigan.

David Woodward, Chairperson of the Oakland County Board of Commissioners, participating from Royal Oak, Michigan.

Helaine Zack, Chairperson of the Finance Committee, Oakland County Board of Commissioners, participating from Huntington Woods, Michigan.

Minutes of the meeting held September 22, 2020 were presented for consideration. It was moved by Zack, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3
Nays - 0

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

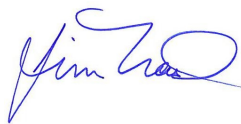
Construction Estimate No. 6 for Zito Construction Group in the amount of \$6,024.10 was presented. It was moved by Zack, supported by Woodward, that the Construction Estimate be paid as presented.

ADOPTED: Yeas - 3
Nays - 0

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

ADOPTED: Yeas - 3
Nays - 0

There being no further business, the meeting was adjourned.




Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the Hamilton Relief Drains, Oakland County, Michigan, held on the 15th day of December, 2020, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

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



Jim Nash, Chairperson

Dated: December 30 , 2020

OAKLAND COUNTY WATER RESOURCES COMMISSIONER
MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE
Hamilton Relief Drain

Assessment for current fund deficit and estimated maintenance expenses for fiscal years: 2021 through 2023

Date last assessment approved:	11/28/17	
Last Assessment:		\$910,123
Current Available Cash:		(\$11,874)

Expenditure History:	Fiscal Year	Amount
	2014	\$6,396
	2015	\$1,961
	2016	\$6,316
	2017	\$34,032
	2018	(\$18,214)
	2019	\$10,723
	2020	\$6,588

Estimated Expenditures:	Year	Amount
	2021	\$7,600
	2022	\$7,600
	2023	\$7,600
	Total	\$22,800

Recommended Assessment:

Current Cash Deficit	\$11,874
Total Anticipated Expenses 2021 - 2023	\$22,800
Proposed Special Project Expenses	\$7,400
TOTAL RECOMMENDED ASSESSMENT	\$42,074

Prepared by: Michael R. McMahon Date: April 27, 2021
Michael R. McMahon, P.E. - Chief Engineer

Approved by: Steven Korth Date: April 27, 2021
Steven A. Korth, P.E. - Manager

Note: Current Available Cash as of February 28, 2021, Fiscal Services Division Report.

SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE OF THE HAMILTON RELIEF DRAIN

Public Corporation	*Percentage of Apportionment	Total Amount of Assessment	Payment #1	Payment #2	Payment #3
City of Rochester Hills	92.6300%	\$ 38,973.15	\$ 38,973.15	-	-
County of Oakland	7.3700%	\$ 3,100.85	\$ 3,100.85	-	-
<hr/>					
Total	100.000%	\$ 42,074.00	\$ 42,074.00	\$ -	\$ -

*Apportionment based on Final Order of Apportionment dated 1/28/1994.

Assessment Payment Due Date(s): Payment #1 05/31/2021

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Hamilton Relief Drain for the fiscal years 2021- 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 Hamilton Relief Drain

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

Jim Nash
Chairman of the Drainage Board for the Hamilton Relief Drain

12. Karas Drain

AGENDA

DRAINAGE BOARD FOR THE KARAS DRAIN

April 27, 2021

1. Call meeting to order
2. Approve minutes of meeting of August 25, 2020
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$26,998
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

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

August 25, 2020

A meeting of the Drainage Board for the Karas Drain was held at 2:00 p.m. on the 25th of August, 2020. The meeting was conducted via GoToMeeting in accordance with the Governor's Executive Orders due to the ongoing COVID-19 pandemic. Commissioner Nash read a brief statement regarding the current health crisis and its impact on the Chapter 20 meetings, which can be found in its entirety under "Drainage District Policy".

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

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

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

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

ADOPTED: Yeas - 2
 Nays - 0

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

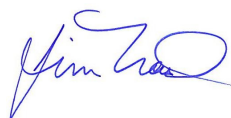
A Memorandum from Jeff Parrot, Right of Way Supervisor, dated August 25, 2020, recommending the Board approve and sign the attached temporary easement to accommodate the City of Rochester Hills' watermain project was presented for consideration. It was moved by Zack, supported by Nash, to approve the temporary easement as presented.

ADOPTED: Yeas - 2
 Nays - 0

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

ADOPTED: Yeas - 2
 Nays - 0

There being no further business, the meeting was adjourned.

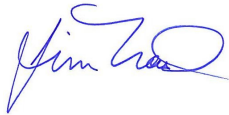


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

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

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



Jim Nash, Chairperson

Dated: September 8 , 2020

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

Assessment for current fund deficit and estimated maintenance expenses for fiscal years: 2021 through 2023

Date last assessment approved:	07/24/18	
Last Assessment:		\$41,133
Current Available Cash:		(\$898)

Expenditure History:	Fiscal Year	Amount
	2014	\$3,105
	2015	\$3,790
	2016	\$6,630
	2017	\$4,476
	2018	\$4,280
	2019	\$7,546
	2020	\$8,442

Estimated Expenditures:	Year	Amount
	2021	\$7,000
	2022	\$7,000
	2023	\$7,000
	Total	\$21,000

Recommended Assessment:

Current Cash Deficit	\$898
Total Anticipated Expenses 2021 - 2023	\$21,000
Proposed Special Project Expenses	\$5,100
TOTAL RECOMMENDED ASSESSMENT	\$26,998

Prepared by: Michael R. McMahon Date: April 27, 2021
Michael R. McMahon, P.E. - Chief Engineer

Approved by: Steven Korth Date: April 27, 2021
Steven A. Korth, P.E. - Manager

Note: Current Available Cash as of February 28, 2021, Fiscal Services Division Report.

SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE OF THE KARAS DRAIN

Public Corporation	*Percentage of Apportionment	Total Amount of Assessment	Payment #1	Payment #2	Payment #3
City of Rochester Hills	95.4900%	\$ 25,780.39	\$ 25,780.39	-	-
County of Oakland	2.6100%	\$ 704.65	\$ 704.65	-	-
State of Michigan	1.9000%	\$ 512.96	\$ 512.96	-	-
<hr/>					
Total	100.000%	\$ 26,998.00	\$ 26,998.00	\$ -	\$ -

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

Assessment Payment Due Date(s): Payment #1 05/31/2021

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Karas Drain for the fiscal years 2021- 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 Karas Drain

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

Jim Nash
Chairman of the Drainage Board for the Karas Drain

13. McIntyre Drain

AGENDA

DRAINAGE BOARD FOR THE MCINTYRE DRAIN

April 27, 2021

1. Call meeting to order
2. Approve minutes of meeting of November 27, 2018
3. Public Comments
4. Present Special Assessment Roll for the Maintenance of the McIntyre Drain in the amount of \$11,300
5. Other business
6. Approve payment to Drainage Board Members
7. Adjourn

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

November 27, 2018

A meeting of the Drainage Board for the McIntyre 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 27th day of November, 2018.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

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

Michael Gingell, Chairperson of the Oakland County Board of Commissioners

Minutes of the meeting held April 17, 2012 were presented for consideration. It was moved by Middleton, supported by Gingell, that the minutes be approved.

ADOPTED: Yeas - 3
Nays - 0

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

A Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$26,245 for the McIntyre Drain (as attached) were presented. It was moved by Gingell, supported by Middleton, to adopt the Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$26,245 as presented.

ADOPTED: Yeas - 3
Nays - 0

A request for reimbursement of the Drain Revolving Fund in the amount of \$86.75 (as attached) was presented. It was moved by Middleton supported by Gingell, that the Drain Revolving Fund be reimbursed in the amount of \$86.75.

ADOPTED: Yeas - 3
Nays - 0

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

ADOPTED: Yeas - 3
Nays - 0

There being no further business, the meeting was adjourned.

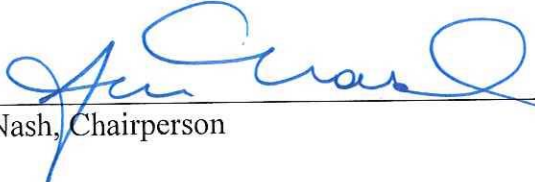


Jim Nash, Chairperson

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 McIntyre Drain, Oakland County, Michigan, held on the 27th day of November, 2018, 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 McIntyre Drain Drainage District.



Jim Nash, Chairperson

Dated: December 11, 2018

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

Assessment for estimated maintenance expenses for fiscal years: 2021 through 2023

Date last assessment approved:	11/27/18	
Last Assessment:		\$26,245
Current Available Cash:		\$1,005

Expenditure History:	Fiscal Year	Amount
	2014	\$2,174
	2015	\$3,718
	2016	\$2,727
	2017	\$3,178
	2018	\$3,526
	2019	\$3,817
	2020	\$4,063

Estimated Expenditures:	Year	Amount
	2021	\$3,700
	2022	\$3,700
	2023	\$3,700
	Total	\$11,100

Recommended Assessment:

Current Cash Deficit	\$0
Total Anticipated Expenses 2021 - 2023	\$11,100
Proposed Special Project Expenses	\$200
TOTAL RECOMMENDED ASSESSMENT	\$11,300

Prepared by: Michael R. McMahon Date: April 27, 2021
Michael R. McMahon, P.E. - Chief Engineer

Approved by: Steven Korth Date: April 27, 2021
Steven A. Korth, P.E. - Manager

Note: Current Available Cash as of February 28, 2021, Fiscal Services Division Report.

SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE OF THE MCINTYRE DRAIN

Public Corporation	*Percentage of Apportionment	Total Amount of Assessment	Payment #1	Payment #2	Payment #3
City of Rochester Hills	92.7700%	\$ 10,483.01	\$ 10,483.01	-	-
County of Oakland	1.1900%	\$ 134.47	\$ 134.47	-	-
State of Michigan	6.0400%	\$ 682.52	\$ 682.52	-	-
<hr/>					
Total	100.000%	\$ 11,300.00	\$ 11,300.00	\$ -	\$ -

*Apportionment based on Final Order of Apportionment dated 6/23/1992.

Assessment Payment Due Date(s): Payment #1 05/31/2021

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the McIntyre Drain for the fiscal years 2021- 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 McIntyre Drain

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

Jim Nash
Chairman of the Drainage Board for the McIntyre Drain

14. Ramiro Drain

AGENDA

DRAINAGE BOARD FOR RAMIRO DRAIN

April 27, 2021

1. Call meeting to order
2. Approve minutes of meeting of January 23, 2018
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$12,900
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

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

January 23, 2018

A meeting of the Drainage Board for the Ramiro 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 23rd day of January, 2018.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

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

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

Minutes of the meeting held May 18, 2010 were presented for consideration. It was moved by Middleton, supported by Nash, that the minutes be approved.

ADOPTED: Yeas - 2
Nays - 0

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

A Maintenance Assessment Recommendation and Special Assessment Roll for the Ramiro Drain in the amount of \$17,075 (as attached) were presented. It was moved by Middleton, supported by Nash, to approve the Maintenance Assessment Recommendation and Special Assessment Roll as presented.

ADOPTED: Yeas - 2
Nays - 0

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

ADOPTED: Yeas - 2
Nays - 0

There being no further business, the meeting was adjourned.

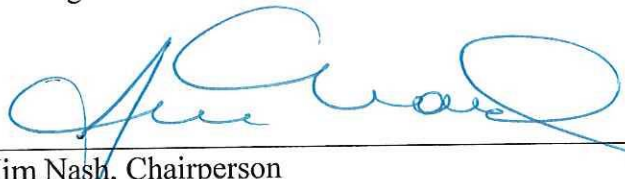


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Ramiro Drain, Oakland County, Michigan, held on the 23rd day of January, 2018, 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 Ramiro Drain Drainage District.



Jim Nash, Chairperson

Dated: February 5th, 2018

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

Assessment for estimated maintenance expenses for fiscal years: 2021 through 2023

Date last assessment approved:	01/23/18	
Last Assessment:		\$17,075
Current Available Cash:		\$519

Expenditure History:	Fiscal Year	Amount
	2014	\$3,028
	2015	\$2,015
	2016	\$1,733
	2017	\$2,764
	2018	\$3,312
	2019	\$2,266
	2020	\$3,568

Estimated Expenditures:	Year	Amount
	2021	\$3,000
	2022	\$3,000
	2023	\$3,000
	Total	\$9,000

Recommended Assessment:

Current Cash Deficit	\$0
Total Anticipated Expenses 2021 - 2023	\$9,000
Proposed Special Project Expenses	\$3,900
TOTAL RECOMMENDED ASSESSMENT	\$12,900

Prepared by: Michael R. McMahon Date: April 27, 2021
Michael R. McMahon, P.E. - Chief Engineer

Approved by: Steven Korth Date: April 27, 2021
Steven A. Korth, P.E. - Manager

Note: Current Available Cash as of February 28, 2021, Fiscal Services Division Report.

SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE OF THE RAMIRO DRAIN

Public Corporation	*Percentage of Apportionment	Total Amount of Assessment	Payment #1	Payment #2	Payment #3
City of Rochester Hills	89.8800%	\$ 11,594.52	\$ 11,594.52	-	-
County of Oakland	10.1200%	\$ 1,305.48	\$ 1,305.48	-	-
<hr/>					
Total	100.000%	\$ 12,900.00	\$ 12,900.00	\$ -	\$ -

*Apportionment based on Final Order of Apportionment dated 1/28/1994.

Assessment Payment Due Date(s): Payment #1 05/31/2021

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Ramiro Drain for the fiscal years 2021- 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 Ramiro Drain

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

Jim Nash
Chairman of the Drainage Board for the Ramiro Drain