

MARTIN SANITARY DIVERSION DRAIN
INTRA-COUNTY DRAINAGE BOARD
APRIL 10, 2023
10:00 A.M.
AGENDA

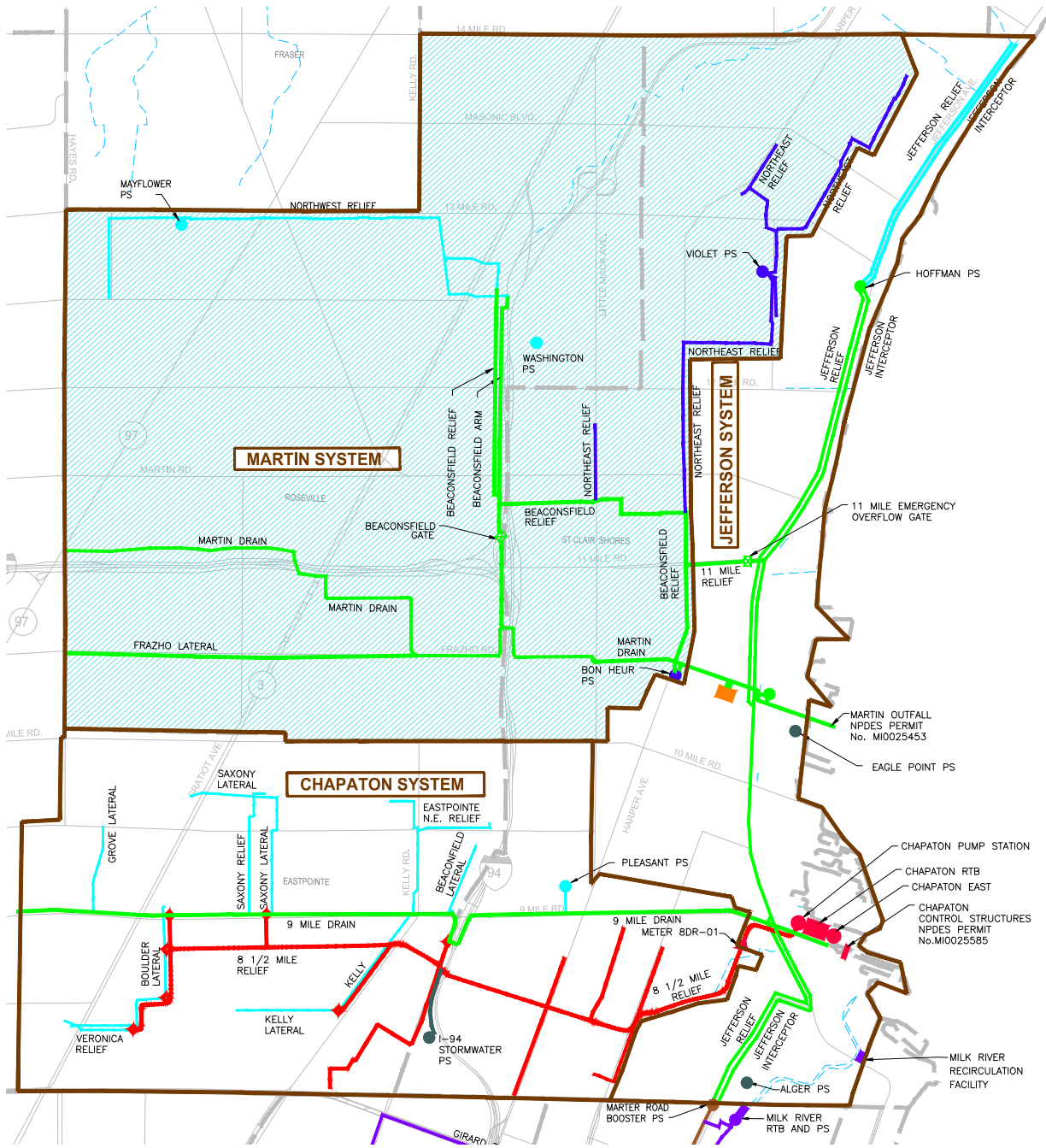
**NOTE: THIS MEETING WILL BE HELD IN PERSON WITH TELECONFERENCE
OPTION FOR PUBLIC**

**Call in Number: 1-224-990-0182
Access Code: 927 405 823**

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for April 10, 2023	
3. Approval of Minutes for March 13, 2023	3
4. Public Participation	
5. Project & Operations Update – Vince Astorino	5
6. Martin In-System Storage/Bon Heur Pumps - SRF Project Plan Public Hearing - Vince Astorino/Maria Sedki (Fishbeck)	6
Motion: To approve the Resolution adopting the SRF Project Plan and authorize the Board Chair to sign and submit the necessary documents.	
7. Consideration for approval of invoices (see attached)	31
8. Financial Report – Bruce Manning	32
9. Adjourn	

Hard copy is intended to be 8.5"x11" when plotted. Scale(s) indicated and graphic quality may not be accurate for any other size.

MARTIN SYSTEM MAP
Macomb County, MI
Southeast Macomb Sanitary District
Wastewater Master Plan



SYSTEM LEGEND

(AS OF DATE OF PUBLICATION)

- SYSTEM BOUNDARY

DISTRICT LEGEND

(AS OF DATE OF PUBLICATION)

- 8 1/2 MILE RELIEF DRAIN DRAINAGE DISTRICT
- SOUTHEAST MACOMB COUNTY WASTEWATER DISPOSAL SYSTEM
- MARTIN SANITARY DIVERSION DISTRICT
- SOUTHEAST MACOMB SANITARY DISTRICT
- NORTHEAST SEWAGE DISPOSAL SYSTEM
- MILK RIVER INTERCOUNTY DRAIN DRAINAGE DISTRICT
- LOCAL MUNICIPALITY
- OTHER

ASSET LEGEND

- PUMP STATION
- FLOW CONTROL STRUCTURE
- RETENTION TREATMENT BASIN
- GRAVITY INTERCEPTOR
- OVERFLOW POINT

An adjourned meeting of the Intra-County Drainage Board for the **MARTIN SANITARY DIVERSION DRAIN** was held in the Office of the Macomb County Public Works Commissioner, 21777 Dunham Clinton Township, Michigan on March 13, 2023, at 10:04 A.M.

PRESENT: Candice S. Miller, Chair
Bryan Santo, Member
Harold Haugh, Member

ALSO PRESENT: Vince Astorino, Operations & Flow Manager; Brian Baker, Chief Deputy; Danielle Devlin, Environmental Specialist; Stephen Downing, Construction and Maintenance Manager; Norb Franz, Communications Manager; Bruce Manning, Finance Manager; Pam Sonnenberg, Administrative Assistant; Tom Stockel, Construction Supervisor; Joseph Romano, Board of Commissioners; Don VanSyckel, Board of Commissioners

PRESENT VIA TELECONFERENCE: Jeff Bednar, Environmental Resources Manager; Mary Shepherd, Environmental and Safety Services Supervisor City of Sterling Heights

The meeting was called to order by the Chair, Candice S. Miller. A motion was made by Mr. Haugh, supported by Mr. Santo to approve the agenda as presented.

Adopted: YEAS: 3
NAYS: 0

Minutes of the meeting of February 13, 2023 were presented. A motion was made by Mr. Santo, supported by Mr. Haugh to approve the minutes as presented.

Adopted: YEAS: 3
NAYS: 0

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

Mr. Astorino provided an update that the Martin Sanitary Diversion had two wet weather events in February. The first event on February 9th had a treated discharge volume of 6.3 MG and the second event on February 27th had a treated discharge volume of 9.6 MG. Both had good water quality levels. There are no construction updates at this time.

Ms. Miller added that MCPWO met with Kip Walby several times about the SEMSD and the upcoming ARPA funds. We are looking to put \$20 million of the \$40 million towards the SEMSD for the pipe along Jefferson. It will reduce the amount of CSO's at Martin. Additionally, we met with Kevin Hertel and requested a state appropriation towards this pipe as well.

Mr. Haugh said that he met with John James and they discussed the opportunity for funding. Ms. Miller said she met with him last week and also discussed funding opportunities. She submitted an earmark letter to him on Monday. We also submitted the same earmark request to Gary Peters and Debbie Stabenow's office. Mr. Haugh said Vicki Wolber will be presenting on county ARPA money usage to the Board of Commissioners on April 11th.

Ms. Miller said that we will be getting some funding from the State. We have submitted invoices and should be getting reimbursed within the next month. Mr. Manning said it is a monthly request.

A motion was made by Mr. Haugh, supported by Mr. Santo to receive and file the project and operations updates as presented.

Adopted: YEAS: 3
NAYS: 0

The Chair presented the invoices totaling \$14,403.85 to the board for review and approval.

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

Adopted: YEAS: 3
NAYS: 0

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

Adopted: YEAS: 3
NAYS: 0

Mr. Haugh said that he received copies of the 2023 MIDD report and he delivered them to City Hall.

There being no further business, it was moved by Mr. Haugh, supported by Mr. Santo that the meeting of the Martin Sanitary Diversion Drain Board be adjourned.

Adopted: YEAS: 3
NAYS: 0

The meeting was adjourned at 10:17 A.M.



Candice S. Miller, Chair
Macomb County Public Works Commissioner

STATE OF MICHIGAN
COUNTY OF MACOMB

I certify that the foregoing is a true and correct copy of proceedings taken by the Intra-County Drainage Board for the Drainage District shown on the attached set of minutes, on March 13, 2023 the original of which is on file in the Public Works Commissioner's Office. Public notice of the meeting was given pursuant to Act No. 267, Public Acts of Michigan, 1975, including, in the case of a special or rescheduled meeting or a meeting secured for more than 36 hours, notice by posting at least 18 hours prior to the time set for the meeting.



Candice S. Miller, Chair
Macomb County Public Works Commissioner

DATED: 3/13/23



Candice S. Miller

Public Works Commissioner
Macomb County

To: Martin Sanitary Diversion Drainage District Board Members

CC: File

From: Vincent Astorino, Operations & Flow Manager

Date: April 10, 2023

Subject: Construction Projects Status Updates for the April 2023 Board Meeting

The following provides a status update for construction work completed within the Martin Sanitary Diversion Drain District (MSDDD) for the previous month.

Wet Weather Operations

Wet Weather Event: March 31, 2023

Rainfall: 2.36 inches

Treated Discharge Volume: 89.9 MG

Water Quality Numbers: 26 cts / 100 ml geometric mean (Permit maximum is 1000 cts/ml)

Description: This was a significant rain event in the non-growing season. Everything operated as designed and there were no issues to report.

No construction activities at this time.



Martin Sanitary Diversion Drainage District State Revolving Fund Martin Drain In-System Storage Device Bon Heur Pump Station Rehabilitation

Public Presentation



April 10, 2023



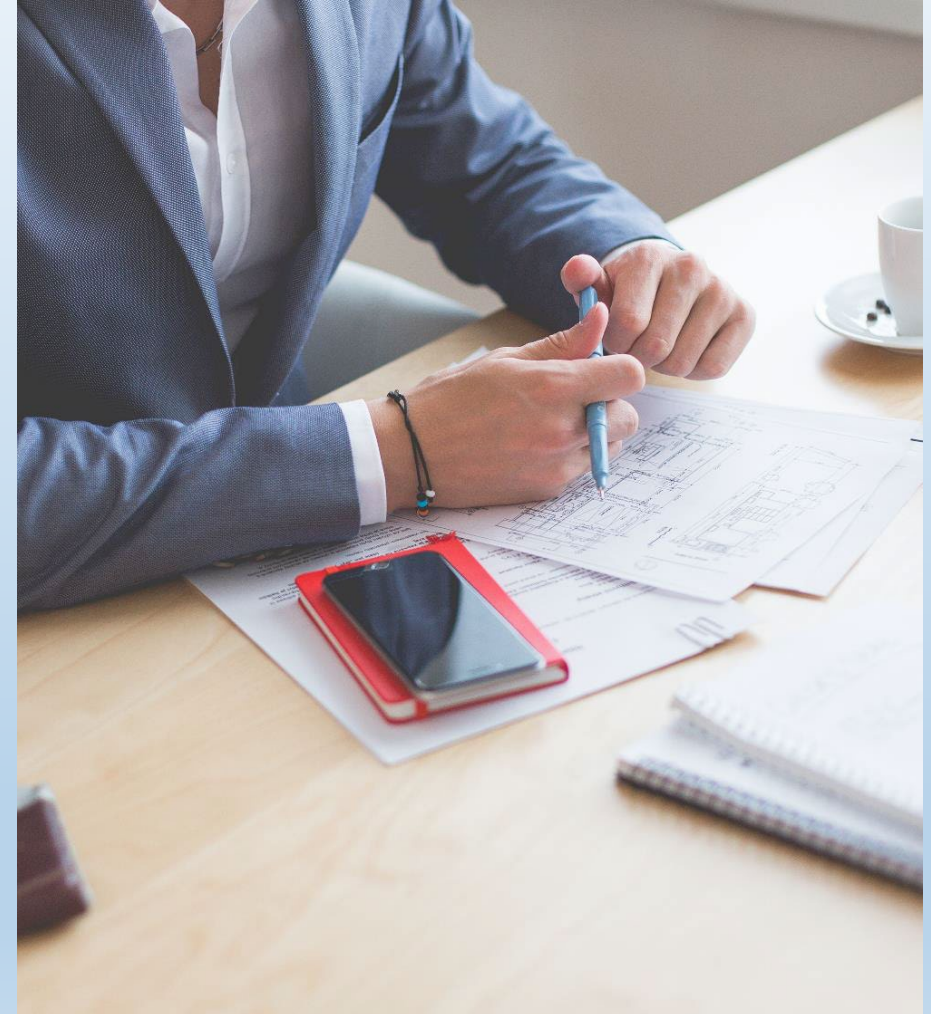
Agenda

Candice S. Miller

Macomb County Public Works Commissioner



1. Informational Presentation
2. Public Q&A



Information Presentation

Candice S. Miller

Macomb County Public Works Commissioner



- SRF Process
- Proposed Projects
- Project Impacts
- Project Costs & Financing
- Schedule
- Questions



State Revolving Fund (SRF) Program

Low interest loan that the State provides to communities within the State of Michigan for improving wastewater systems, including wastewater treatment plants and sewer collection systems.





- Prepare a Draft SRF Project Plan – *Completed*
- Advertise for Public Hearing – *Completed*
- Public Hearing – Today; April 10, 2023
- Drain Board Resolution – Today; April 10, 2023
- Submit Final Project Plan – April 30, 2023

What is a CSO?

Candice S. Miller

Macomb County Public Works Commissioner



Combined Sewer Overflow (CSO)

Combined sewer systems are sewers that are designed to collect rainwater and sewage in the same pipe.

Most of the time, combined sewer systems transport all of their wastewater to a sewage treatment plant, where it is treated and then discharged to a water body.

During periods of heavy rainfall or snowmelt, however, the wastewater volume in a combined sewer system can exceed the capacity of the sewer system or treatment plant resulting in an overflow of excess combined sewage directly to nearby streams, rivers, or other water bodies.

What is a CSO?

Candice S. Miller

Macomb County Public Works Commissioner



Combined Sewer Overflow (CSO)

DURING DRY WEATHER

Normal sewage flow is contained within the system and flows to the Wastewater Treatment Plant.



DURING STORMY WEATHER

The combination of stormwater and sewage can exceed normal capacity and overflows into area waterways.





Martin In-System Storage Device

- Reduce the number and frequency of CSOs
- Improve Water Quality in Lake Saint Clair
- Continue to Meet EGLE NPDES Requirements

Bon Heur Pump Station Rehabilitation

- Pumps installed in 1980 and have exceeded their useful life
- Pumps not large enough to handle the 25 year – 24 hour design storm
- Continue to Meet EGLE NPDES Requirements



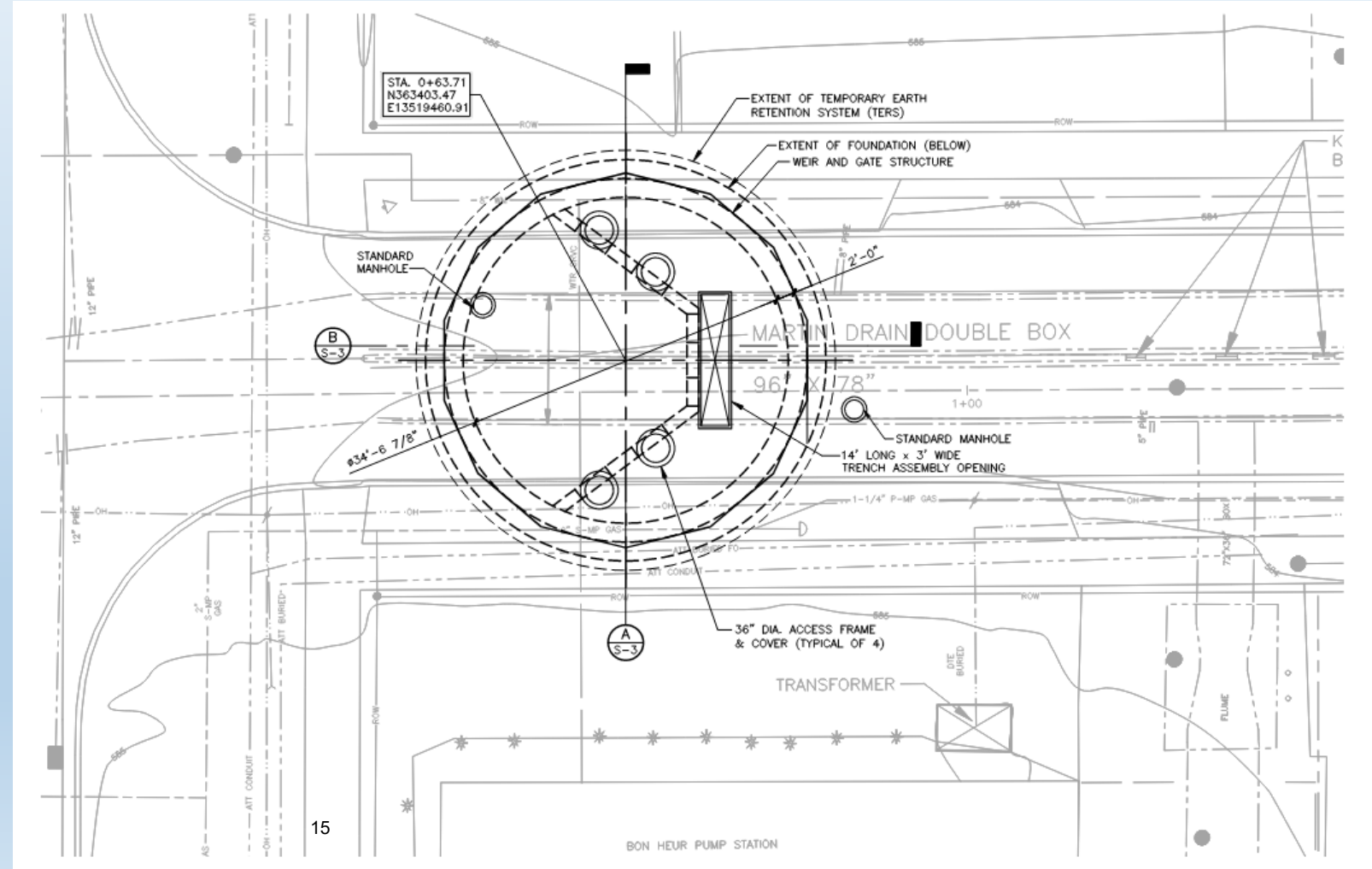


Project Location



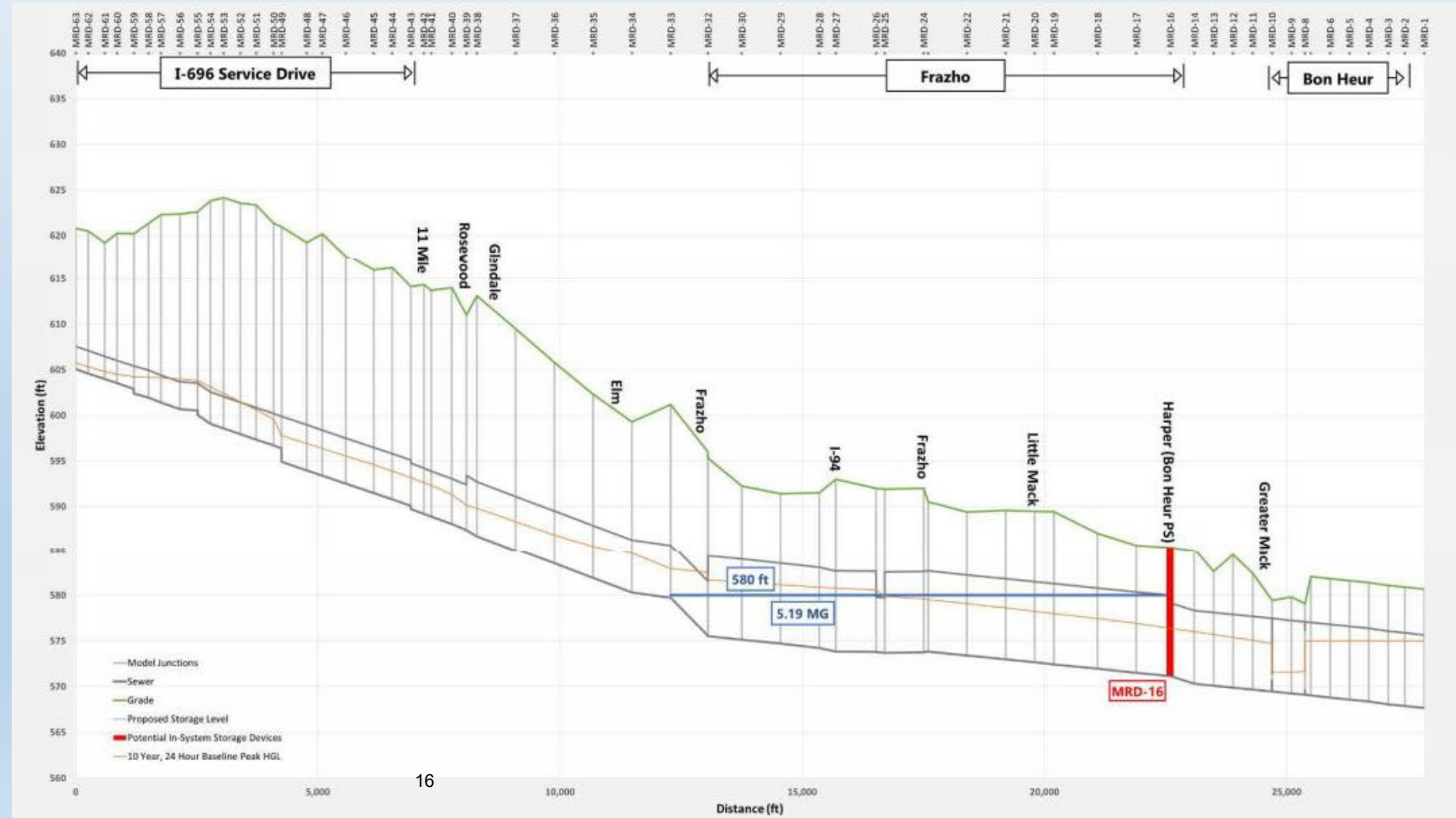
Martin Drain In-System Storage Device

- Located in the Martin Drain Double Box
- 34-foot circular chamber with weir wall and gates.
- Dry weather flow will pass through the gates.
- Gates will close during rain events to store flow upstream in the Martin Drain
- Gates will open after the rain event to let flow pass



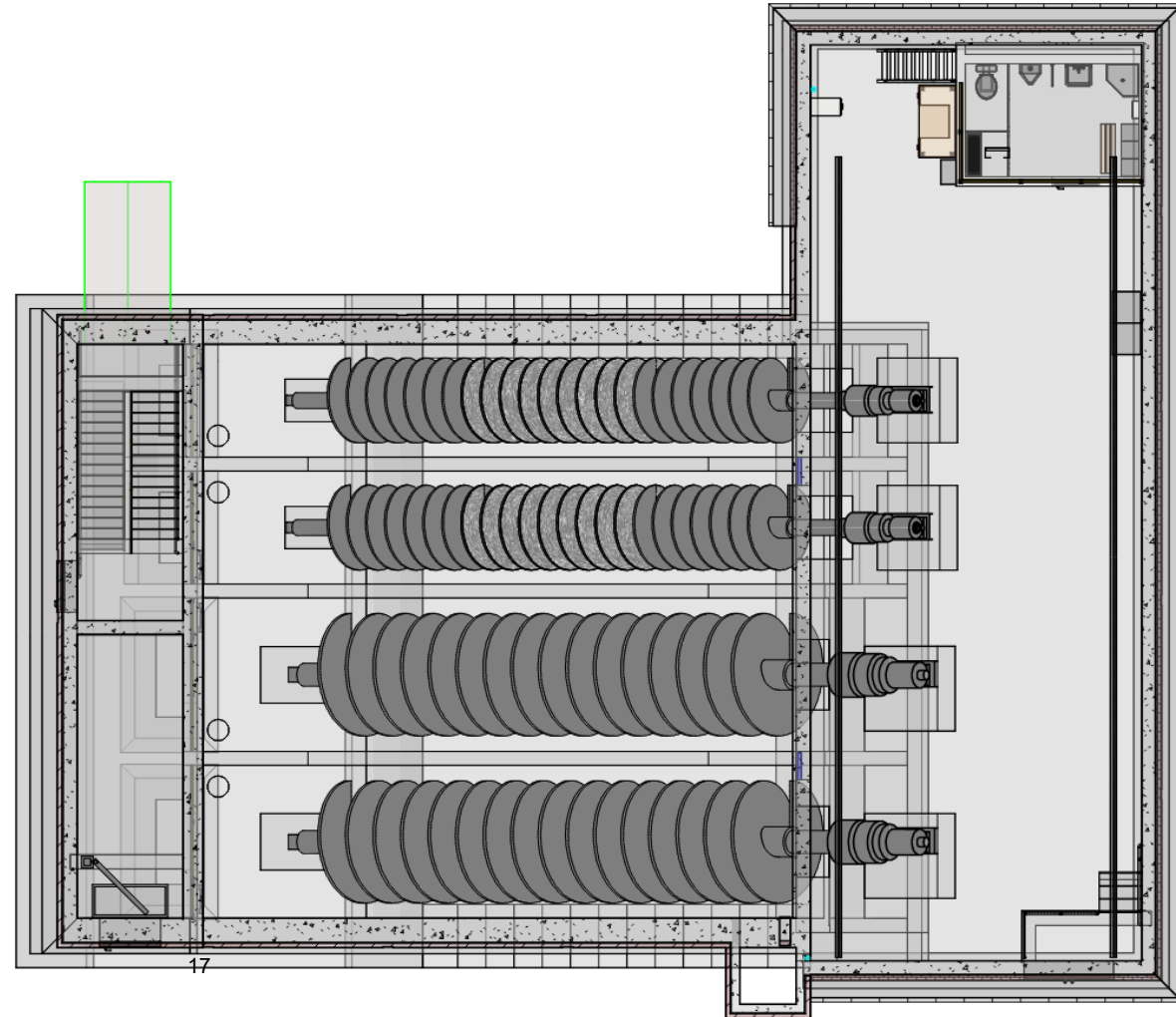


Martin Drain In-System Storage Device



Bon Heur Pump Station Rehabilitation

- Replace the 2 small and 2 large screw pumps
- Increase pumping capacity from 40,000 gpm to 50,000 gpm
- Replace electrical components
- Replace Crane
- Add Odor Control System
- Increased storage via pump control and basement backup prevention





In order to be eligible for an SRF Loan, an analysis of available alternatives for each construction project must be performed and the selected alternative must be the one that is most “cost-effective” (i.e., least expensive).

SRF rules require that the analysis be performed using a net present worth comparison of costs.



Martin Drain In-System Storage Device – Principal Alternatives Monetary Evaluation

	Alternative 1-1: Martin Drain In-System Storage Device	Alternative 1-2: Huron Park EQ Basin	Alternative 1-3: Sewer Separation*
Capital Cost	\$5,130,400	\$162,074,000	\$100,537,000
O&M Cost	\$25,700	\$810,400	\$502,700
Salvage Value	\$2,170,400	\$68,273,300	\$53,230,300
Present Worth of O&M Cost	\$492,100	\$15,546,200	\$9,643,600
Present Worth of Salvage Value	\$2,003,900	\$63,034,300	\$49,145,600
20-Year Total Present Worth	\$3,618,600	\$114,585,900	\$61,035,000

* Alternative 1-3 does not include local sewer separation or footing drain disconnection that is needed to complete the work



Bon Heur Pump Station Rehabilitation – Principal Alternatives Monetary Evaluation

	Alternative 2-1: Bon Heur PS Upgrade – Submersible Pumps	Alternative 2-2: Bon Heur PS Rehabilitation – Screw Pumps
Capital Cost	\$13,600,000	\$7,924,600
O&M Cost	\$68,000	\$39,700
Salvage Value	\$2,410,600	\$515,900
Present Worth of O&M Cost	\$1,304,500	\$760,100
Present Worth of Salvage Value	\$2,225,600	\$476,300
20-Year Total Present Worth	\$12,678,900	\$8,208,400



- **Short Term**

- Temporary Construction Impacts

- **Long Term**

- Improve Water Quality in Lake Saint Clair
- Extend the life of the Bon Heur Pump Station



Project Cost and Apportionment

Community	Apportionment	Total Construction Costs
Project 1 – Martin ISD		
City of Roseville	78.09%	\$4,006,329
City of St. Clair Shores	21.91%	\$1,124,071
<i>Subtotal</i>		<i>\$5,130,400</i>
Project 2 – Bon Heur PS Rehabilitation		
City of Eastpointe	34.39%	\$2,725,270
City of Roseville	32.90%	\$2,607,193
City of St. Clair Shores	32.71%	\$2,592,137
<i>Subtotal</i>		<i>\$7,924,600</i>
Total Construction Cost		\$13,055,000



Blended Apportionment & Annual Payment

Community	Composite Cost	Composite Apportionment	Annual Loan Payment (2.00% Interest)	Annual Loan Payment (2.75% Interest)
City of Eastpointe	\$2,725,270	20.88%	\$166,669	\$178,973
City of Roseville	\$6,613,523	50.66%	\$404,461	\$434,321
City of St. Clair Shores	\$3,716,207	28.47%	\$227,271	\$244,050
	\$13,055,000	100.00%	\$798,401	\$857,344



Overburden Designation

- Based on EGLE's new procedure, the "blended" regional system is considered overburden
- This will likely result in a lower interest rate for the loan
- This will improve the chances of acquiring a loan as well as possibly acquiring a grant in the form of loan forgiveness

Schedule

Candice S. Miller

Macomb County Public Works Commissioner



Design: Ongoing

Construction: January 2024

Questions?

Candice S. Miller

Macomb County Public Works Commissioner



Public Q&A

**A RESOLUTION ADOPTING A FINAL PROJECT PLAN
FOR WASTEWATER SYSTEM IMPROVEMENTS or
NPS POLLUTION CONTROL/STORMWATER IMPROVEMENTS AND
DESIGNATING AN AUTHORIZED PROJECT REPRESENTATIVE**

WHEREAS, the Martin Sanitary Diversion Drainage District (legal name of applicant) recognizes the need to make improvements to its existing wastewater treatment and collection system or its existing NPS pollution control/stormwater treatment system; and

WHEREAS, the Martin Sanitary Diversion Drainage District (legal name of applicant) authorized Fishbeck (name of consulting engineering firm) to prepare a Project Plan, which recommends the construction of _____
the Martin Drain In-System Storage Device and the rehabilitation of the Bon Heur Pump Station
_____ ; and

WHEREAS, said Project Plan was presented at a Public Hearing held on 4/10/2023 and all public comments have been considered and addressed;

NOW THEREFORE BE IT RESOLVED, that the Martin Sanitary Diversion Drainage District (legal name of applicant) formally adopts said Project Plan and agrees to implement the selected alternative (Alternative No. _____).

BE IT FURTHER RESOLVED, that the Chief Deputy Macomb County Public Works Commissioner (title of the designee's position), a position currently held by Brian Baker (name of the designee), is designated as the authorized representative for all activities associated with the project referenced above, including the submittal of said Project Plan as the first step in applying to the State of Michigan for a revolving fund loan to assist in the implementation of the selected alternative.

Yeas: Candice S. Miller, Harold Haugh, Bryan Santo

Nays: None

Abstain: None

Absent: None

I certify that the above Resolution was adopted by Intra County Board for the Martin Sanitary Diversion Drainage District (the governing body of the applicant) on 4/10/2023.

BY: Candice S. Miller, Chair, Macomb County Public Works Commissioner
Name and Title (please print or type)

Signature

Date

Disadvantaged Community Status Determination Worksheet

The following data is required from each municipality in order to assess the disadvantaged community status. Please provide the necessary information and return to:

Robert Schneider
Water Infrastructure Financing Section
Finance Division
P.O. Box 30457
Lansing, MI 48909-7957
Schneiderr@michigan.gov

If you have any questions, please contact Robert Schneider at 517-388-6466

Please check the box this determination is for:

DWRF SRF

1. Total amount of anticipated debt for the proposed project, if applicable.

2. Annual payments on the existing debt for the system.

3. Total operation, maintenance and replacement expenses for the system on an annual basis.

4. Number of "residential equivalent users" in the system.

For determinations made using anticipated debt, a final determination will be made based upon the awarded loan amount.

Michigan Department of Environment, Great Lakes, and Energy
 Gretchen Whitmer, Governor
 Liesl Eichler Clark, Director
 http://www.michigan.gov/egle

Clean Water Revolving Funds SRF/SWQIF Project Plan Submittal Form

Name of the Project Martin Sanitary Diversion Drainage District State Revolving Fund Project Planning Document Amendment for Martin Drain In-System Storage Device and Bon Heur Pump Station Rehabilitation	Applicant's Federal Employer Identification Number (EIN) 38-6004868
Legal Name of Applicant (The legal name of the applicant may be different than the name of the project. For example, a county may be the applicant for bonding purposes, while the project may be named for the particular village or township it serves.) Martin Sanitary Diversion Drainage District	Areas Served by this Project Counties <u>Macomb County</u> Congressional Districts <u>10</u> State Senate Districts <u>11 and 12</u> State House Districts <u>11, 12, and 62</u>
Address of Applicant (Street, P O Box, City, State & Zip) 21777 Dunham Road Clinton Township, MI 48306	Associated SAW Grant Number (if applicable)
NPDES Permit Number (if permit holder) MI0025453	Associated SAW Grant Number (if applicable)
Brief Description of the SRF/SWQIF Project The loan will be used to construct an in-system storage device within the Martin Drain to utilize storage within the pipe and to rehabilitate the Bon Heur Pump Station. The estimated storage volume of the in-system storage device is approximately 5.2 MG. The project will reduce the frequency and volume of CSO discharges and help improve the water quality of Lake St. Clair	
Disadvantaged Community Determination <input type="checkbox"/> The applicant is requesting a disadvantaged community determination, and a completed <i>Disadvantaged Community Status Determination Worksheet</i> is attached.	
Estimated Total Cost of the SRF/SWQIF Project SRF Request: \$13,055,000	SRF/SWQIF Construction Start Target Date First Quarter 2024
Name and Title of Applicant's Authorized Representative Brian Baker Chief Deputy Macomb County Public Works Commissioner	
Address of Authorized Representative (if different from above)	Telephone 586-469-5325 E-Mail Address brian.baker@macombgov.org
Signature of Authorized Representative	Date 4/10/2023
Joint Resolution(s) of Project Plan Adoption/Authorized Representative Designation is attached. check here <input type="checkbox"/>	

A final project plan, prepared and adopted in accordance with the Department's *Clean Water Revolving Funds (SRF and SWQIF) Project Plan Preparation Guidance*, must be submitted by July 1st in order for a proposed project to be considered for placement on a Project Priority List for the next fiscal year. Please send your final project plan with this form to:

WATER INFRASTRUCTURE FINANCING SECTION
 FINANCE DIVISION
 MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
 P O BOX 30457
 LANSING MI 48909-7957

Project Useful Life and Cost Analysis Certification Form

Project Information

Applicant Name: Martin Sanitary Diversion Drainage District State Revolving Fund Project Planning Document Amendment for Martin Drain In-System Storage Device and Bon Heur Pump Station Rehabilitation

SRF Project to be Funded: _____

The loan will be used to construct an in-system storage device within the Martin Drain to utilize storage within the pipe and to rehabilitate the Bon Heur Pump Station. The estimated storage volume of the in-system storage device is approximately 5.2 MG. The project will reduce the frequency and volume of CSO discharges and help improve the water quality of Lake St. Clair

Per Section 602(b)(13) of the Federal Water Pollution Control Act (FWPCA), all Clean Water State Revolving Fund (CWSRF) assistance recipients must certify that they have conducted the studies and evaluations described in 602(b)(13)(A) and (B), collectively known as a cost and effectiveness analysis.

- 1) The applicant has studied and evaluated the cost and effectiveness of the processes, materials, techniques, and technologies for carrying out the proposed project or activity for which assistance is sought under the CWSRF; and
- 2) The applicant has selected, to the maximum extent practicable, a project or activity that maximizes the potential for efficient water use, reuse, recapture, and conservation, and energy conservation, taking into account the cost of:
 - constructing the project or activity;
 - operating and maintaining the project or activity over the life of the project; and
 - replacing the project or activity.
- 3) The applicant has completed a Project Useful Life analysis for the project or activity.
Attach appropriate documentation

I certify that requirements (1), (2), and (3) as checked above have been met.

Maria E. Sedki, PE

Name of Professional Engineer (*Please Print or Type*)



4/10/2023

Signature of Professional Engineer

Date

Brian Baker, Chief Deputy Macomb County Public Works Commissioner

Name and Title of Authorized Representative (*Please Print or Type*)

4/10/2023

Signature of Authorized Representative

Date

<u>Funding Source</u>	<u>Apportionment</u>	<u>Manager</u>	<u>Vendor</u>	<u>Amount</u>	<u>Invoice Detail</u>	<u>Project Summary</u>	<u>Project Balance</u>
Martin Sanitary Diversion Drain	Chapter 20 Roseville - 78.09% St. Clair Shores - 21.91%	Astorino	DTE Energy	\$ 1,283.56	Invoice #23-170 - 03.17.23	Monthly Electric - 02.16.23 - 03.16.23	
		Astorino	Fishbeck	\$ 936.00	Invoice #421284 - 03.17.23	Inspection Program through 03.17.23	\$ 55,296.63
		Astorino	Fishbeck	\$ 5,343.00	Invoice #421282 - 03.22.23	RTB Improvements - Design Phase through 3.17.23	\$ 71,581.50
		Astorino	Interstate Billing Service	\$ 588.78	Invoice #Z61670 - 02.28.23	Backhoe Repairs	
		Astorino	People Driven Technology	\$ 971.17	Invoice #INV4114 - 03.07.23	SCADA VMWare Software	
		Astorino	Swan Analytical Instruments	\$ 1,506.52	Invoice #CD10006865 - 03.06.23	TRC Testing Agents	
		Total			\$ 10,629.03		

YTD Budget

Fund: Martin Sanitary Diversion

As of Fiscal Period: Oct 1, 2022-March 31, 2023(50%)

DESCRIPTION	2023 FINAL BUDGET	ENCUMBERED	ACTUAL	REMAINING BUDGET	PCT UTILIZED
REVENUE ACCOUNTS					
Investment Inc-Interest	5,000		386	4,614	7.7%
Reimb-Local Communities	1,061,070		1,061,070	-	100.0%
Use of Reserves/Funds Previously Collected	778,000				
Use of SCADA Reserves	12,950				
PY Revenue-Fund Balance	581,290			581,290	0.0%
Total Revenue Accounts	2,438,310	-	1,061,456	585,904	43.5%
EXPENSE ACCOUNTS					
Application/Permit Fee	6,000		6,000	-	100.0%
Dues, Training, Conf, Subs.	3,310		33	3,277	1.0%
Engineering					
-Basin Equipment Hatch Replacement	30,000			30,000	0.0%
-Gates/Vault/RTB Ductwork Project	1,108,000		19,433	1,088,567	1.8%
-As Needed Engineering	29,090		3,169	25,921	10.9%
-In-System Storage Design & CCA	481,280			481,280	0.0%
-Misc Sewer Repairs	20,000				
-Basin Equipment Hatch Replacement Design	9,950				
New Equipment	1,000			1,000	0.0%
Operating Supplies	61,950		38,421	23,529	62.0%
Other Professional Svcs	9,800		2,765	7,035	28.2%
Personnel Services	220,100			220,100	0.0%
Repair & Maintenance	371,800		25,265	346,535	6.8%
Contribution to SCADA Reserve	5,810			5,810	0.0%
Scada System	34,620		5,204	29,416	15.0%
Utilities	45,600		5,948	39,652	13.0%
Total Expense Accounts	2,438,310	-	106,238	2,302,122	4.4%

	O&M Balance 9/30/2022	O&M	Total 3/31/2023
Cash - Operating	1,294,502	955,218	2,249,720
A/R ISS SEMSD	600,000		600,000
Assets			0
Liabilities			0
Revenues		1,061,456	1,061,456
Expenditures		106,238	106,238
Equity	1,894,502		2,849,720

Detail of 2022 Equity

Design Basin Equipment Hatch	9,950	SolarWinds-Net Mgt Software	1,940
Misc Sewer Repairs	20,000	Obsolete Wireless Backhaul Links	3,230
ISS SEMSD Contribution	600,000	Fiber Optic improvements	3,220
In System Storage-Design and CCA	730,290	Firewall Hard Design/Config	2,580
Flushing System Upgrades-Design, Const, CCA	51,151	Parking Lot Resurface	30,000
CCTV of Dewatering Line and Influent and Effluent Boxes	25,000	Capital Reserves	386,400
SCADA Reserves	19,900	As Needed Engineering	10,841