

ELEVEN AND ONE HALF MILE RELIEF DRAIN
INTRA-COUNTY DRAINAGE BOARD
JANUARY 13, 2020
10:30 A.M.
AGENDA

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for January 13, 2020	
3. Approval of Minutes for January 14, 2019	3
4. Public Participation	
5. Request for Approval of Proposals Associated with SEMCOG Planning Grant and Matching Funds – Jeff Bednar	5
Motion: To approve the proposals from Fishbeck, ASI, and Hamilton Anderson for \$36,832.50 for a study aimed at reducing storm water pollution into Lake St. Clair and increased public recreation access to the drain property.	
6. EPA GLRI Trash-Free Great Lakes Funding Grant Resolution – Jeff Bednar	15
Motion: To approve the Resolution supporting the EPA Trash-Free GLRI no match grant application.	
7. Financial Report – Bruce Manning	17
8. Adjourn	

11 & 1/2 MILE RELIEF DRAIN

ROSEVILLE/ST CLAIR SHORES



Legend

- Enclosed Gravity**
 - < 60" Dia
 - >= 60" Dia
 - Multiple Pipes
 - Culvert
- Open Channel**
 - Ditch
 - Pond



Drain Length (Feet/Miles):
64,387.97 / 12.19



An adjourned meeting of the Intra-County Drainage Board for the **ELEVEN AND ONE-HALF MILE RELIEF DRAIN** was held in the Office of the Macomb County Public Works Commissioner, 21777 Dunham, Clinton Township, Michigan, on January 14, 2019, at 11:11 A.M.

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

ALSO PRESENT: Robert Leonetti, Robert Mijac, Macomb County Board of Commissioners; Brian Baker, Chief Deputy, Karen Czernel, Deputy, Vincent Astorino, Operations and Flow Manager, Jeff Bednar, P.E., Environmental Resources Manager, Bruce Manning, Financial Manager, Stephen Downing, Engineer II, Dan Heaton, Public Relations Manager, Ken Goike, Drain Operations Manager, Barbara Delecke, Administrative Services, Madison Tanghe, Secretary to Chief Deputy, Macomb County Public Works (MCPW); Jordan Scott, Sterling Heights Public Works Department

The meeting was called to order by the Chair, Candice 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 December 10, 2018 were presented. A motion was made by Mr. Santo, supported by Mr. Haugh, with the caveat that he was not present at the meeting, 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.

The final report provided by Fishbeck, Thompson, Carr & Huber, Inc. (FTC&H) will be entered into NEXGEN for future maintenance. A pre-application grant was submitted to install devices which would capture debris in the drain. Notice of grant potential will be in February. At that time, a full grant application will be submitted. The City of St. Clair Shores is interested in developing a pocket-park at the outfall.

A motion was made by Mr. Haugh, supported by Mr. Santo to receive and file the project update given by Mr. Bednar.

Adopted: YEAS: 3
NAYS: 0

The Chair presented the invoices totaling \$27,310.83 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. Santo and supported by Mr. Haugh.

Adopted: YEAS: 3
NAYS: 0

There being no further business, it was moved by Mr. Haugh, supported by Mr. Santo, that the meeting of the Eleven and One-half Mile Relief Drain Board be adjourned.

Adopted: YEAS: 3
NAYS: 0

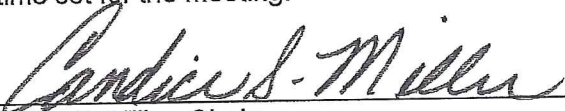
The meeting was adjourned at 11:17 a.m.



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 January 14, 2019, 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: 1/22/19

9626.bd



Candice S. Miller

Public Works Commissioner
Macomb County

Memo

To: Eleven and One-Half Mile Relief Drainage Board
From: Jeff Bednar, PE, Environmental Resources Manager
Date: January 6, 2019
Re: Request for Approval of Proposals Associated with SEMCOG Planning Grant and Matching Funds

Please see the attached information requesting authorization to approve the execution of three proposals totaling \$38,654 for work associated with a planning grant awarded to MCPWO for a study aiming to reduce stormwater pollution into Lake St. Clair and increase public recreational access to the property containing the drain.

The proposals, from Fishbeck, ASI and Hamilton Anderson, will be primarily funded by a \$36,832.50 grant from SEMCOG. The grant requires a match of 18.15%. The maximum cash required is \$8,187.50 to meet the match requirement of the total project amount of \$45,000. This cash amount will cover a portion of consultants' fee and other project costs such as supplies for the public engagement session. Some project costs will be in kind services and could potentially reduce the cash required.

The purpose of the project is to showcase the rationale for a device to aid in increasing stormwater quality, as well as highlight public access opportunities. The resulting plan will bolster future grant applications such as the EPA GLRI Trash Free Waters grant discussed later in this meeting.

The grant period runs through June 2020. Please see the following pages for a detailed project description as well as the submitted proposals.

OFFICE LOCATION: 21777 Dunham Road, Clinton Township, Michigan 48036 • Phone: 586-469-5325 • Fax: 586-469-5933

MAILING ADDRESS: P. O. Box 806, Mt. Clemens, Michigan 48046-0806

ENGINEERING • Phone: 586-469-5910 • Fax: 586-469-7693 ♦ **SOIL EROSION** • Phone: 586-469-5327 • Fax 586-307-8264

11.5 Mile Relief Drain Retrofit and Public Access Planning Project



Need: A recently completed stormwater asset management study found that while the 11.5 Mile Relief drainage system was in good structural condition, sediments and trash were being transported through the pipes directly into Lake St. Clair. Due to over 50% imperviousness and lack of stormwater treatment in this highly urbanized watershed, areas where green stormwater infrastructure can be implemented to reduce stormwater pollution into the lake are limited.

Hydrodynamic separators can achieve the same water quality benefits as a large rain garden or bioswale in this urban area with limited green space. The following link is to a video showcasing the function of a device <https://youtu.be/rDWMzQ5uErQ>.

Project Objective: This study looks to reduce stormwater pollution into Lake St. Clair with the installation of a device such as a hydrodynamic separator that will collect trash before it enters the lake.

Resulting projects are expected to treat up to 300,000,000 gallons of stormwater annually while capturing 270 lbs of phosphorus and 35 yd³/yr of suspended solids before entering the lake.

The planning process should also illuminate increased public access opportunities to the lake with community improvements including the possibility for a kayak launch, fishing pier, and

bicycle infrastructure as well as potential habitat restoration at the outfall area. The project schedule is included on the following page.

Partners: Macomb County Public Works Office, Macomb County Planning and Economic Development, City of St. Clair Shores, City of Roseville.

Planning Grant Award: \$45,000

SEMCOG Funded: \$36,832.50

Local Match: The required 18.15% of project costs is a cash max of \$8,167.50. Cash and in kind match will be used for a small portion of consultant fee, grant administration and participation in grant activities (See below table for initial projected budget). Initial consultant proposals have come in lower than projected which may end up reducing the cash match required (See Details of Proposed Contractual Services table on the next page).

Initial Project Budget

Contractual Services			
Activity	Description	Timeline	Estimated Cost
Consultant	evaluating previous study, modeling and developing basis of design	September 2019- June 2020	\$ 36,832.50
Total:			\$ 36,832.50

Local Match

Contractual Services (Cash)			
Activity	Description	Timeline	Estimated cost
Consultant	evaluating previous study, modeling and developing basis of design	September 2019- June 2020	\$ 8,167.50
Administration (In-Kind)			
Activity	Description	Timeline	Estimated cost
MCPWO Staff	administration of the grant and participation in grant activities	July 2019-June 2020	\$ 5,000.00
Total:			\$ 13,167.50
Total Project Cost			\$ 50,000.00
Funded			\$ 45,000.00

Details of Proposed Contractual Services

Contractual Services			
Consultant	Description	Timeline	SOW Estimate
Fishbeck	Project lead. Develop 2 concepts to modify the sheet pile & estab wetland/marsh. Discuss with regulatory agencies, tailor concepts, develop cost estimates and sketches with 2 meetings.	Jan- June 2020	\$ 24,700.00
Contractual Services			
Consultant	Description	Timeline	SOW Estimate
Applied Science	Develop concepts for screen/net, hydraulic design calcs and construction and O&M costs	Jan- June 2020	\$ 9,334.00
Contractual Services			
Consultant	Description	Timeline	SOW Estimate
Hamilton Anderson	Opinion of probable cost for previous park plan, plan mark ups & expenses	Jan-June 2020	\$ 4,620.00
Total Fees:			\$ 38,654.00

Project Schedule

Task	2019					
	Jul	Aug	Sept	Oct	Nov	Dec
Grant award						
Initial project partners meeting(s)						
Request/review proposals						
Contract award (Notice to Proceed)						
Evaluate SAW Grant work						
Administration						
Task	2020					
	Jan	Feb	Mar	Apr	May	Jun
Hydraulic modeling						
Public engagement session						
Develop basis of design						
Preliminary design plans						
Cost estimates						
Present final product to partners						
Administration						

January 2, 2020

Jeff Bednar, PE, CFM
Environmental Resources Manager
Macomb County Public Works Commissioner's Office
21777 Dunham Road
Clinton Township, MI 48036

**Proposal for Professional Engineering Services
11 ½ Mile Relief Drain Outfall Retrofit Project Management**

Dear Jeff:

Fishbeck is pleased to submit this proposal to provide project management services for the retrofit of the 11 ½ Mile Relief Drain (Drain) project. This proposal is based on our project understanding, experience with the Drain, and understanding gained from working with your office.

Our project team is comprised of experienced staff who can efficiently problem solve and form creative solutions to meet project needs.

Statement of Understanding

The Macomb County Public Works Commissioner's Office (MCPWCO) has received a planning grant from the Southeast Michigan Council of Governments (SEMCOG) to retrofit the outfall of the Drain to improve stormwater quality and public access to Lake St. Clair. Fishbeck and Applied Science, Inc. (ASI) staff met with you to discuss the possible scope of the modifications that could be made to the outfall to improve the water quality prior to discharging to Lake St. Clair. Additionally, we discussed proposed improvements to the property at the outfall for development into a park space in coordination with the outfall retrofit improvements. A proposal was provided by Hamilton Anderson Associates, Inc. (HAA) for evaluating park improvements.

Fishbeck will provide project management services to coordinate proposed site improvements and grant administration. Fishbeck anticipates the proposed project will be completed in phases.

Phase I

Fishbeck will coordinate planning activities for the SEMCOG grant, which will include developing conceptual outfall and park improvements. Cost estimates will be developed for the various improvements and include:

- ASI – Alternative concept, associated hydraulic modeling, and cost estimate for screening/netting facility
- Fishbeck – Alternative concepts (2) and cost estimate for retrofit of the outfall to establish a wetland/coastal marsh
- HAA – Alternative concepts and cost estimate for park improvements

Separate proposals that detail the scope and fees have been submitted to your office from ASI and HAA and are attached for your reference. It is our understanding that ASI and HAA will contract and invoice MCPWCO directly for their services.

Alternatives Analysis

Fishbeck's alternative analysis will evaluate the modification of the existing sheet pile structure at the outlet and establish a wetland/coastal marsh that would serve to filter the stormwater prior to entering Lake St. Clair.

Fishbeck will evaluate two concepts to retrofit the outfall to establish a wetland/coastal marsh. We will discuss the concepts with the appropriate regulatory agencies to identify any potential concerns with the proposed retrofit and will tailor the concepts to address any specific preliminary concerns they may have. We will develop a cost estimate for the concepts as well as supporting preliminary sketches illustrating the proposed improvements. We anticipate two follow-up meetings to present and discuss the concepts and associated estimates and to identify the next phase of the project.

Project Management

Fishbeck will provide project management for Phase I of the 11 ½ Mile Relief Drain Outfall Retrofit Project. Project management tasks will include:

- Coordinating the concepts and cost estimates developed by Fishbeck, ASI, and HAA. We will summarize the findings of each firm and develop an overall project concept and estimate summary.
- Identifying grant or other appropriate funding opportunities based on the recommended project improvements.
- Coordinating pre-application meeting(s) with the Michigan Department of Environment, Great Lakes, and Energy (EGLE) and U.S. Army Corps of Engineers (USACE). Pre-application fees are included in our fee below.
- Public engagement session.
- SEMCOG grant administration assistance.
- Final partner presentation.

A memo will be prepared summarizing the findings from each of these tasks and recommendations will be prepared for the next phase of the project.

Phase II

A Phase II scope and fee will be developed upon review and acceptance of the Phase I memo by your office. It is anticipated that the Phase II scope may include project management, concept detailed design and contract documents, grant procurement, and EGLE and USACE Joint Permit Application.

Professional Services Fees and Authorization

Fishbeck proposes to complete the proposed scope of services for time and materials fee not to exceed Twenty-Four Thousand Seven Hundred Dollars (\$24,700).

Attached is our Professional Services Agreement. If you concur with our scope of services, please sign in the space provided and return the executed contract to the attention of Nicole A. Curtin (nacurtin@ftch.com). This proposal is made subject to the attached Terms and Conditions for Professional Services. Invoices will be submitted every four weeks and payment is due upon receipt.

If you have any questions or require additional information, please contact me at 248.324.1572 or blmckissen@ftch.com.

Sincerely,



Brian L. McKissen, PE, CFM
Senior Civil Engineer

Attachments
By email

Professional Services Agreement

PROJECT NAME 11 ½ Mile Relief Drain Outfall Retrofit Project Management
FISHBECK CONTACT Brian L. McKissen, PE, CFM
CLIENT Macomb County Public Works Commissioner
CLIENT CONTACT Jeff Bednar
ADDRESS 21777 Dunham Road, Clinton Township, MI 48036

Client hereby requests and authorizes Fishbeck to perform the following:

SCOPE OF SERVICES: Provide professional engineering services in accordance with Fishbeck letter proposal dated January 2, 2020.

AGREEMENT. The Agreement consists of this page and the documents that are checked:

- Terms and Conditions for Professional Services, attached.
- Proposal dated January 2, 2020.
- Other:

METHOD OF COMPENSATION:

- Lump Sum for Defined Scope of Services
- Hourly Billing Rates plus Reimbursable Expenses
- Other:

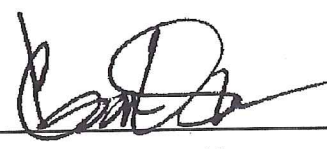
Budget for Above Scope of Services: Twenty-Four Thousand Seven Hundred Dollars (\$24,700).

ADDITIONAL PROVISIONS (IF ANY): None.

APPROVED FOR:
Macomb County Public Works Commissioner

BY: _____
TITLE: _____
DATE: _____

ACCEPTED FOR:
Fishbeck

BY:  _____
TITLE: Senior Vice President
DATE: January 2, 2020



Macomb County Public Works Office - 11.5 Mile Drain Outlet Retrofit

Scope of Work and Budget for Applied Science, Inc.

November 18, 2019

Scope of Work

The project involves the study and conceptual design of modifications to the existing 11.5 Mile Drain outlet to Lake St. Clair in St. Clair Shores, Michigan to improve public access, recreation, water quality and habitat.

The existing drain outlet east of Jefferson Avenue consists of about 540-feet of 12-foot wide by 10-foot high double box concrete conduit that ends at a headwall with stop log grooves for isolation from Lake St. Clair. The overall width of the double box drain is about 28-feet. The 11.5 Mile Drain outlet continues into the lake through a sheet pile lined channel that was dredged and covered by double tee concrete beams laid across the channel. Secondary sheet pile walls exist north and south of the channel with earthen fill and vegetation in the space between the channel and outside sheet pile walls.

The drain right-of-way is about 60-feet wide and is owned by Macomb County.

Concepts for a screening/netting facility will be developed and evaluated by ASI. The screening/netting facility is intended to operate during wet weather and remove trash and litter from the stormwater discharging to the lake. The screening/netting facility will be located along the double concrete box section of the drain and may include an above grade building for removal of the trash. A baffle may be included for removal of floatables and a weir/sump may be included at the screening facility for removal of solids.

Alternative concepts will be developed with hydraulic design calculations. The construction and O&M costs will be developed for each alternative.

Proposed Budget

The proposed budget for the ASI is given below.

Personnel	Estimated Work Hours	Cost (Dollars)
Karen Ridgway	16	\$2,707
John Michalski	24	\$3,722
Doria Herold	24	\$2,165
Lisa Lynn	12	\$740
Total		\$9,334

ASI is ready to begin on this task upon authorization to proceed and have scheduled time to complete the work by the end of the year.

HamiltonAnderson

January 7, 2020

Candice S. Miller
Macomb County Public Works Office
21777 Dunham
Clinton Township, MI 48036

Re: Proposal for St. Clair Shores – Martin Road Park, 2019131.M

Dear Candice:

Hamilton Anderson Associates, Inc. (HAA) is pleased to submit this proposal to provide professional services for the above-referenced project. We have outlined our understanding of the project and scope of basic services to assist you in achieving your goals. We have structured the proposal for your review as follows:

PROJECT UNDERSTANDING
SCOPE OF BASIC SERVICES
COMPENSATION
REIMBURSABLE EXPENSES
PAYMENT FOR SERVICES
PROJECT SCHEDULE
EXHIBIT A – 2020 STANDARD RATE SCHEDULE FOR PROFESSIONAL SERVICES
EXHIBIT B – STANDARD TERMS AND CONDITIONS
EXHIBIT C – ADDITIONAL SERVICES

PROJECT UNDERSTANDING

HAA understands that the City of St Clair Shores is seeking a grant to fund construction of Martin Road Park, located at Jefferson and Martin Road. HAA prepared a master plan for Martin Road Park, which would sit atop the Martin Drain, in 2000. The City requests that HAA prepare an Opinion of Probable Cost for improvements based on this master plan for the park, for use in the grant application.

SCOPE OF BASIC SERVICES

Based on the project understanding outlined above, HAA proposes the following scope of basic services:

- Opinion of Probable Cost (PDF)
- Plan markup delineating assumptions (PDF)

COMPENSATION

HAA proposes the hourly fee not to exceed **Four Thousand Four Hundred Dollars (\$4,400)**. The standard rate schedule for professional services is enclosed (Exhibit A).

REIMBURSABLE EXPENSES

In addition to our fee, we will invoice for all reimbursable expenses incurred in connection with this project. We estimate the reimbursable expenses to be **Two Hundred Twenty Dollars (\$220)**. These reimbursable expenses will be billed at cost. Reimbursable expenses include but are not limited to the following:

- Reproductions
- Printing
- Mileage at the current IRS standard mileage rate

PAYMENT FOR SERVICES

HAA invoices for services monthly based on the percentage of our work that has been completed in the previous month. Payment in full for services is due within thirty (30) days upon receipt of the invoice. If payment in full is not received within thirty (30) days, the past due amount per month will be subject to a late fee of 1% per month of the amount due calculated from the invoice due date. Payment not received after forty-five (45) days may give cause for HAA to suspend or discontinue service.

Please make checks payable to Hamilton Anderson Associates, Inc. and send to the attention of the Controller.

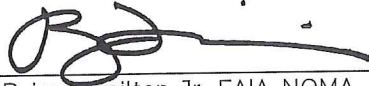
PROJECT SCHEDULE

HAA will start our services upon receipt of your signed written authorization to proceed.

- We will require two weeks to complete the deliverable.

In closing, we thank you for the opportunity to submit this proposal. We trust that it meets with your approval, and we look forward to assisting you in your efforts. If there are any questions concerning our proposal, please contact Meghan Diecchio at your convenience.

Sincerely,
Hamilton Anderson Associates, Inc.



Rainy Hamilton, Jr., FAIA, NOMA
President



Meghan Diecchio, PLA, ASLA
Project Manager

ACCEPTANCE

If the information presented in this proposal and Exhibits A, B, and C meets with your approval, please sign below on the acceptance line and return one signed copy as your acceptance and authorization for us to proceed.

Macomb County Public Works Commissioner

Date

RH/MD

Enclosures: (3)
Exhibit A – 2020 Standard Rate Schedule for Professional Services
Exhibit B – Standard Terms and Conditions
Exhibit C – Additional Services

cc: HAA Controller
Marketing File 2109131.M

DET-v.2020



Candice S. Miller

Public Works Commissioner
Macomb County

Memo

To: Eleven and One-Half Mile Relief Drainage Board
From: Jeff Bednar, PE, Environmental Resources Manager
Date: January 6, 2019
Re: EPA GLRI Trash-Free Great Lakes Funding Opportunity

The EPA has announced a Request for Applications (RFA) for a GLRI grant to implement trash removal projects in the waters and communities of the Great Lakes. There is approximately \$1,000,000 available for approximately 10 projects, with a minimum award of \$50,000. No match is required. If awarded funding becomes available in May 2020.

Applications are due February 15, 2020 and require detailed descriptions of project components such as project design, programmatic capability and past performance. Competitive projects also will include an outreach and education component.

This grant is an example of the implementation funding sources we hope to target with the 11.5 Mile Relief planning project. Although not yet complete, we hope that the initiation of the planning project will provide additional competitiveness should we apply for this or other grant opportunities.

We are in the process of internal discussions with PWO staff and the project team of whether to apply given the quick turnaround and detailed application requirements. We are now asking the board for a resolution supporting the EPA Trash-Free GLRI grant application.



Candice S. Miller

Public Works Commissioner
Macomb County

**Eleven and One-Half Mile Relief Drainage Board
Resolution of Support**

Resolution Approving Submission of Grant Application for EPA GLRI Trash Free Waters

The following resolution was offered by board member, _____ and second by board member _____,

Whereas, the Eleven and One-Half Mile Relief Drainage Board has determined it necessary to address stormwater quality in the drain and its outfall into Lake St. Clair by removing trash and efforts are currently underway to study potential devices and other solutions.

Whereas, funding is available from the Environmental Protection Agency (EPA) through the GLRI Trash Free Waters 2020 Program for trash removal projects in Great Lakes Communities.

Whereas, the minimum grant award is \$50,000 and the maximum is \$300,000 with no match requirement.

Therefore be it resolved that, the Eleven and One-Half Mile Relief Drainage Board does hereby approve the submission of a grant application to the Environmental Protection Agency Trash Free Waters 2020 Program for a trash removal project to be shortly determined with no cash match by means of the passing of this resolution, hereby adopted on January 13, 2020.

Ayes: _____

Nays: _____

I, Candice S. Miller, Macomb County Public Works Commissioner, do hereby certify the foregoing to be a true and correct copy of a resolution that was adopted by the Eleven and One-Half Mile Relief Drainage Board at a meeting held on January 13, 2020.

Candice S. Miller
Macomb County Public Works Commissioner

YTD Trial Balance

Fund: 11.5 Mile

As of Fiscal Period: Oct 1, 2019-Dec 31, 2019

	O&M Balance 9/30/2019	O&M	Total 12/31/2019
Cash - Operating	404,781	1,273	406,054
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		1,671	1,671
Expenditures		398	398
Encumbered for SAW			0
Equity	404,781		406,054