



April 14, 2022

Ms. Jennifer L. Escott  
Lenawee County Drain Commissioner  
320 Springbrook Avenue, Suite 102  
Adrian, Michigan 49221

Subject: Proposal for Engineering Services for  
Wamplers Lake, Franklin Township and Cambridge Township  
Wastewater System Improvements  
Wastewater Lagoons Solids Removal and Liner Replacement

Dear Ms. Escott:

Jones & Henry is pleased to provide you with this proposal for engineering services associated with the Wamplers Lake Wastewater Treatment Lagoons Solids Removal and Lagoon Liner Replacement.

### Statement of Understanding

The Lenawee County Drain Commissioner (LCDC) is operating the wastewater collection system and treatment system for Wamplers Lake, Franklin Township, and Cambridge Township. The Wamplers Lake wastewater treatment is a controlled discharge lagoon consisting of two aerated facultative lagoon cells followed by two unaerated storage lagoon cells. The current discharge permit is being met except for the phosphorus limit of 1 mg/L, which the LCDC is also addressing.

The LCDC's operations group has no records that the lagoons have been cleaned, since they were put into operation nearly 20 years ago. Most of the solids have accumulated in the primary cells which are approximately 18 feet deep, with a consistent operating depth. Additionally, the LCDC has noticed that the exposed upper portions of the liner, specifically in the secondary cells where the effluent is drained off seasonally, have begun to show signs of deterioration. The LCDC would like to proceed with the removal of solids and replacement of the liners. If cost becomes a concern, they would like to consider phasing the improvements to focus on the secondary cells liners first, then the primary cells liner.

### Project Approach

Our approach is to start with preliminary design. The preliminary design will identify the required improvements to remove solids from the primary and secondary lagoons and install new liners. We will provide a phased approach to the improvements; the secondary lagoons are being cleaned and relined first, followed by the primary lagoon being cleaned and relined.

### Preliminary Design

Jones & Henry proposes that a kick-off meeting be held at the LCDC's office. The purpose of the meeting is to familiarize the participants with each other and to discuss the project's specifics including all attributes and amenities to be incorporated into the design.

- We will perform a site visit to evaluate the existing lagoons to review the current conditions of the system as visible from the surface.

- We will review LCDC's monthly operating reports (MORs), drawings, records, previous evaluations/reports, and O&M Manuals.
- We will develop a plan for sampling/testing solids and measuring the depth of the solids in the lagoons. Previous evaluations and reports regarding the lagoon solids will be reviewed and utilized in this process. Based on the results of solids testing and depth measurements, we will advise the LCDC on the proper means of solids removal and disposal. Depending on the age of previous reports, sampling, and testing, additional sampling and testing may be recommended.
  - Additional solids sampling and testing are not included in our proposal.
- Following our initial meeting and project discussion, we will prepare a design memorandum document and sketches to outline the project approach and design for each phase of the improvements.
  - We will prepare a preliminary Engineer's Opinion of Probable Construction Cost.
- We will meet with the LCDC to discuss our initial findings and review the design memorandum. If the LCDC is in agreement, we will proceed with the design of the improvements.

#### **Final Design**

A final design will then be completed for Phase 1, Solids Removal and Relining the Secondary Lagoons. The scope of engineering services for the Phase 1 design of the solids removal and liner replacement will include:

- We will meet with the LCDC to discuss our initial findings and review the design memorandum. If the LCDC is in agreement, we will proceed with the design of the improvements.
  - We will meet with the LCDC monthly to review progress on the project, next steps, and budgets.
- Prepare plans and technical specifications for the solids removal, disposal, and liner replacement.
  - Drawings will include, plan view, sections, and details utilizing the LCDC's record drawings. No survey of the lagoons is planned at this time.
  - Technical specifications will be prepared for the work and include details for construction sequencing and the scope of work that compliments the drawings. We understand the LCDC has standard bidding and contract documents that will be utilized with our technical documents in the bidding process.
- Prepare the final Engineer's Opinion of Probable Construction Cost.

#### **Bidding and Award Phase**

- We are planning to bid on Phase 1 improvements, the secondary cells solids removal and liner replacement, as one project.
- We will provide assistance during the bidding phase of the project that includes answering questions during bidding, if required, attend a pre-bid meeting, issuing addenda as needed, reviewing bids, and providing a letter of recommendation for award.
- If needed, plan distribution may be done through Jones & Henry Plan Room.

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## Project Fee

Our estimated fee for the engineering services to complete the scope of work listed above, preliminary, Phase 1 Design, and Bidding Phase is \$49,800.

Actual charges will be based upon time and expenses, not to exceed the proposed fee without approval by the LCDC. Detailed invoices outlining hours and expenses consumed will be provided monthly for review and approval by the LCDC.

The standard of care for all professional engineering and related services performed or furnished by Jones & Henry under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. Jones & Henry makes no warranties, express or implied, under this Agreement or otherwise, in connection with any services performed or furnished by Jones & Henry.

## Schedule

| Task                                     | Approximate Date              |
|--|-------------------------------|
| Site Investigation and Design Memorandum | July 1, 2022                  |
| Meeting with EGLE                        | August 2022                   |
| Complete 60% Design                      | October 1, 2022               |
| EGLE Plan Review                         | October 1, 2022               |
| Complete Design                          | November 1, 2022              |
| Advertise for Bids and Bidding           | January 2023 to February 2023 |

If requested, we can provide the following additional service:

- Assistance with project funding.
- Assistance with the construction administration.
- Full-time, on-site observation during construction activities.

We want to thank you for the time provided to discuss the project, and we appreciate the LCDC's consideration of Jones & Henry for this work. If you have any questions, please contact me. We would be happy to meet with you and the LCDC to discuss our proposal.

Sincerely,

JONES & HENRY ENGINEERS, LTD.

A handwritten signature in black ink that reads 'Peter A. Latta'.

Peter A. Latta, CDT®, CSI  
Toledo Office Director

PAL/bjm