Navid H. Mehram
Chief Operating Officer
Wastewater Operating Services
9300 W. Jefferson
Detroit, Michigan 48209
Phone: 313-297-4300

Memorandum

To: **The Honorable**
Board of Directors

From: **Navid H. Mehram, P.E., Chief Operating Officer - Wastewater**
Sonya Collins, Chief Procurement Officer

CC: **GLWA Executive Leadership**

Date: **February 25, 2026**

RE: **Emergency Procurement Request – Replacement of Transformer A and B at WRRF**

Purpose

This memorandum is to inform the Board of Directors of the Emergency need to replace Transformers A and B at the Water Resource Recovery Facility (WRRF) and to advise you of the emergency procurement to initiate this work.

Background

The WRRF is supplied by three independent 120 kilovolts (kV) primary electrical feeders, each connected to a dedicated transformer—Transformers A, B, and C.

- Transformers A and B are fed by two underground DTE cables, Maxwell 1 and Maxwell 2, which were installed nearly a century ago.
- Both of these cables recently failed, resulting in loss of redundancy in the power supply to the WRRF.
- The third feeder, installed around 2020, is an overhead 120 kV line that supplies Transformer C, which was installed in 2016.

As this honorable Board of Directors is aware, the WRRF experienced outages of Maxwell 1 and Maxwell 2 transformers for a considerable amount of time in 2025, putting GLWA into emergency planning in the event of the third power feed failing and the WRRF losing all utility power supply. Subsequently with this development, DTE Energy has determined that the Maxwell 1 and Maxwell 2 feeders must be replaced due to age, repeated failures and unreliability. DTE is currently working on finalizing the routing, acquiring easements, and completing the design for the replacement of these feeds and anticipates being completed and ready to tap into GLWA Transformers A and B in approximately 24 months.

Problem Statement
Transformers A and B have exceeded their useful life and does not comply with current standards. In way of example the current configuration of the transformers does not allow one of the transformers to remain energized while work is done on the other. This means when DTE is ready to connect their new feeds to the transformers, both will need to be deenergized for a prolonged period of time, putting the plant at risk. The current configuration of Transformers A and B, and the methods of isolating them no longer comply with DTE standards or electrical code for safety and isolation. This puts the operation of the WRRF at risk anytime there is work needed on a single transformer, and given the proximity of the transformers to each other, if one were to experience a catastrophic failure, it could easily impact the other.

Proposed Solution and Procurement Approach
The replacement project will proceed as an emergency progressive design-build (PDB) procurement in two phases.

Phase 1A – Scope Development
- Develop the scope of work for Phase 1B, which is the 60% design and Guaranteed Maximum Price (GMP) development.
- No engineering or construction work will occur during Phase 1A.
- GLWA staff, in coordination with Legal and Procurement, will review the scope and contract documents.
- Phase 1A Cost: $125,000.00
- Phase 1A Schedule: 8 – 12 weeks.

Phase 1B – 60% Design and GMP
- Phase 1B will include completion of 60% design drawings and specifications and submission of a GMP.
- The Design Build Team will submit a GMP for Phase 2 covering 100% design and construction.
- Phase 1B cost: $1,746,037.00 (Total Phase 1 cost: $1,871,037.00)
- Phase 1B Schedule: 10 months

Phase 2 – Final Design and Construction
- Design will be progressed from 60% completion to 100% completion necessary to fully construct the planned improvements.
- The project will then be constructed, and time sequenced to deliver the quickest result possible. This can include pre-order of equipment, or early start construction activities identified to be on the construction project delivery critical path.
- Phase 2 authorization will be brought to the Board of Directors for approval as a Change Order to the PDB contract.
- Phase 2 Costs: To be determined and approved by this board.
- Phase 2 Schedule: To be determined after completion of 60% design documents.

Summary and Recommendation

Replacement of Transformers A and B is necessary for:

- To maintain reliability and compliance for the WRRF's primary electrical supply.
- Enable safe replacement of the failed DTE feeders.
- Eliminate operational risks associated with aging and non-isolable transformer infrastructure.

Presently, Wastewater Engineering estimates the total cost for replacing Transformers A and B as a Progressive Design Build project as described above in two phases will be approximately $15 Million (preliminary estimate). This improvement and cost were not anticipated in the current Capital Improvement Plan. Engineering plans to work with our financial partners to identify funding. Of the many project delivery methods available, the progressive design-build delivery model will allow this project to transform quickly from concept to reality in time to meet the aggressive project schedule by DTE, which is approximately 24 months to complete all work necessary to replace the electrical feeds to transformers A and B.

In consideration of the criticality of this work, its impacts on operations, the prolonged outage already experienced in 2025 where both feeds were completely lost, and the need to meet an aggressive schedule of DTE to replace both of these feeds, this project was determined to be an emergency. GLWA has an existing progressive design-build contract with the Kokosing team (which includes Hazen for design) for another very large project at the WRRF, Aeration Decks 1 and 2 Improvements. The work for the Aeration Decks project in part, also includes the replacement of the transformer that provides power to the intermediate lift pump station, which is also proximal to Transformers A and B. This scope of the Aeration Decks transformer work is similar to the scope of work necessary to complete this project, and therefore Wastewater Engineering recommends award of this critical project to the Kokosing team in order to ensure the aggressive schedule by DTE can be met and ensure reliable operations of GLWA power feeds.