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Memorandum

To: HONORABLE BOARD OF DIRECTORS

From: Suzanne R. Coffey, P.E., Chief Planning Officer

CC: Sue McCormick, Chief Executive Officer
Nicolette N. Bateson, CPA, Chief Financial Officer & Treasurer

Date: April 22, 2019

RE: Strength of Flow Sampling for Sewer SHARES

After a large amount of effort and robust collaboration, GLWA, its consultants and member partners are recommending that no additional sewer sampling be conducted to refine the strength of flow values for future updates to the Sewer SHARES. The purpose of this memorandum is to describe the efforts that have been undertaken since the draft sampling plan was presented to the Board, describe the basis for the current recommendation, and to solicit the opinion of the Directors regarding the matter.

Background

Preparation for FY2018 Sewer SHARES Update

Beginning in 2016 in preparation for updating Sewer SHARES for the FY2018 charges, a Sewer SHARES workgroup was launched. The workgroup consisted of member partners, their consultants, GLWA Team Members and its consultants. Together over the course of many months, the workgroup discussed and analyzed various elements of the Sewer SHARES. The culmination of the workgroup's efforts was a report published in March of 2017 which recommended updated values for the strength of flow components. Strength of flow components in this context were Biological Oxygen Demand, Total Suspended Solids, Phosphorus and Fats, Oil and Grease (FOG). In addition to a number of other concerns, the updated values for the strength of flow components were challenged by some member partners.

Board Action

As the Board of Directors considered wastewater charges for FY2018, the updated strength of flow values were an important factor. On June 7, 2017 the Board approved the FY2018 wastewater charges. In that same meeting, the Board directed GLWA Administration to develop and present "a preliminary strength of flow sampling plan that provides meaningful basis for the allocation of strength of flow". A draft sampling plan was presented to the Board at its September 13, 2017 meeting. It was received and filed with the understanding that the

next step would be to engage the member partners in the discussion.

Draft Sampling Plan

On October 6, 2017 the draft sampling plan was presented to the member partners at a Wastewater Analytics Task Force Meeting. It was decided that a small group would be developed to more fully consider the substance in the draft plan. The small group met on November 6, 2017 and had a robust discussion. At the end of the meeting there was a strong consensus that the group had serious concerns about conducting any additional sampling. In some instances, member partners openly indicated that they did not support additional sampling of any kind. Given the feedback, focus was turned to GLWA hosting a national symposium on wastewater charges to consider how other large wastewater utilities were allocating costs.

National Wastewater Symposium

On June 28, 2018 the national symposium on wastewater charges was held. The two-day symposium included presentations of the charge methods of five large wastewater utilities. Four utilities were represented in person and one by way of video. The first day focused on learning about the other utilities' charge methods. The second day consisted of GLWA and member partner discussions. The symposium highlighted a variety of options and perspectives on the topic and the takeaway was that GLWA would continue to work on updating the SHARES as well as consider engaging a third-party consultant. At the end of the symposium, a special Charges Workgroup was scheduled for July 18, 2018 where GLWA would present its go-forward approach.

Two Special Workgroups

On July 18, 2018 the Special Charges Workgroup meeting was held and a path forward was presented that consisting of two subgroups. These subgroups were identified as the Charges Methodology and Sewer SHARES workgroups. The Charges Methodology workgroup would focus on the method itself and the Sewer SHARES workgroup would focus on the data. On August 2, 2018 a Wastewater Charges Workgroup was held to jointly kickoff of the two subgroups. That meeting was designed and conducted to give both workgroups the same starting point by reviewing the pertinent history of charges and technical elements of the wastewater collection and treatment systems.

Charges Methodology Work Group

Since August 2nd, the Charges Methodology Group has met six times. There have also been several evaluation team meetings held related to the solicitation of a third-party consultant as requested by member partners.

Sewer SHARES Workgroup

Since August 2nd, the Sewer SHARES workgroup has held 15 meetings in which strength of flow, peaking, flows in the D+ area and assumptions have been presented and discussed. Additionally, a smaller "peaking" focus group has met four times. Through these meetings, the group coalesced around added analysis regarding

strength of flow in the following three categories:

- Sample results from sampling conducted at the influent of the WRRF;
- Deposition and resuspension of sewage solids in the collection system; and
- Additional research to gather results of sampling from reliable sources.

This approach accomplished a primary goal of further grounding the strength of flow concentrations used in the SHARES calculations with data from our own system. Additionally, this work advanced analyses on two elements about which member partners expressed concerns previously. The results were compiled and presented by CDM in a presentation and a draft report in February of 2019.

Sewer SHARES Workgroup’s Sampling Conclusion and Consensus

On March 15, 2019 the Sewer SHARES workgroup met again and among other things, recommended with unanimous consensus that no additional sampling be conducted. It is important to note that all first-tier wastewater member partners were invited to all the workgroup meetings. The specific member partners who attended the March 15th meeting were as follows:

- City of Allen Park
- City of Dearborn
- City of Detroit
- Evergreen Farmington – Oakland County
- City of Farmington
- George W. Kuhn Drainage District
- City of Grosse Pointe Park
- City of Melvindale
- Oakland Macomb Interceptor Drain Drainage District
- Wayne County

Conclusion

A large amount of effort has been expended to focus, evaluate, and determine the feasibility and efficacy of additional sampling. The Board of Directors specifically identified the need for additional sampling to be “meaningful”. The results of the work completed by the workgroup, GLWA’s Team Members, and its consultant CDM Smith have concluded that additional sampling is not advised. Rather, the collective group concluded that the use of the robust sampling that is conducted at the WRRF alongside added national research was the preferred method to go forward to refine the strength of flow elements. It should be noted that although the group has settled the matter of their recommendation regarding sampling, the results of the added analyses and the application thereof is still being discussed.