

GLENBARD WASTEWATER AUTHORITY
Executive Oversight Committee
Draft Minutes
January 12, 2017
Meeting held at the Glenbard Wastewater Plant
21 W 551 Bemis Rd.; Glen Ellyn, IL

Members Present:

Alex Demos	President, Village of Glen Ellyn
Keith Giagnorio	President, Village of Lombard
Dean Clark	Trustee, Village of Glen Ellyn
Mike Fugiel	Trustee, Village of Lombard
Mark Franz	Village Manager, Village of Glen Ellyn
Scott Niehaus	Village Manager, Village of Lombard
Julius Hansen	Public Works Director, Village of Glen Ellyn
Carl Goldsmith	Public Works Director, Village of Lombard

Others Present:

Erik Lanphier	Executive Director, GWA
Matthew Streicher	Engineer/Assistant Director, GWA
Rick Freeman	Electrical Superintendent, GWA
Jay Dahlberg	Maintenance Superintendent, GWA
David Goodalis	Operations Superintendent, GWA
Laurie Frieders	Environmental Resources Coordinator, GWA
Tim Sexton	Finance Director, Village of Lombard
Derek Wold	Baxter and Woodman
Mandy Shepash	Baxter and Woodman
David Koch	Associate Vice President, Black & Veatch
Greg Dose	Legal Counsel, GWA
Debbie Solomon	Recording Secretary

1. Call to Order at 7:33 a.m.
2. Roll Call: President Demos, President Giagnorio, Trustee Clark, Trustee Fugiel, Mr. Franz, Mr. Niehaus, Mr. Hansen and Mr. Goldsmith answered "Present."
3. Pledge of Allegiance was led by Erik Lanphier, GWA Executive Director.
4. Public Comment

None
5. Consent Agenda - the following items are considered routine by the Executive Oversight Committee and were presented for a single approval in the form listed below:

Motion the EOC to approve the following items including Payroll and Vouchers for the month of December 2016 totaling \$739,333.90. (Trustee Clark)

Mr. Goldsmith motioned and Trustee Clark seconded the *MOTION that the following items on the Consent Agenda be approved. President Demos, President Giagnorio, Trustee Clark, Trustee Fugiel, Mr. Franz, Mr. Niehaus, Mr. Hansen and Mr. Goldsmith responded “Aye” during a roll call vote. The motion carried.*

- 5.1 Executive Oversight Committee Meeting Minutes:
 - o December 8, 2016 EOC Minutes
- 5.2 Vouchers Previously Reviewed by Trustee Clark:
 - o December 2016
- 5.3 Sodium Thiosulfate Contract Award

The Glenbard Wastewater Authority posted the bid notice and packets to our web site on December 1, 2016. Notification was given publicly through an advertisement to bid that was published in the Daily Herald on December 1, 2016. The deadline for receipt of the sealed bids was January 3, 2017 at 11:00 a.m. After opening the bid documents, reviewing the unit prices and confirming that all required documentation was present, PVS Minibulk was the lowest responsive, responsible bidder. PVS has been our long-term Sodium Thiosulfate provider due largely in part to the delivery requirements we have mandated and based on their proven performance record and consistent pricing. GWA does not have any reason to deny them award of the new contract.

The Operations Staff requests the EOC to award a three-year contract to PVS Chemical, Detroit, Michigan, for the purchase and delivery of Liquid Sodium Thiosulfate at \$1.72 per gallon/delivered with the amount expensed to CY2017 O&M Budget 270-1-530440.

- 5.4 Sodium Hypochlorite Contract Award

The Glenbard Wastewater Authority posted the bid notice and packets to our web site on December 1, 2016. Notification was given publicly through an advertisement to bid that was published in the Daily Herald on December 1, 2016. The deadline for receipt of the sealed bids was January 3, 2017 at 11:00 a.m. After opening the bid documents, reviewing the unit prices and confirming that all required documentation was present, Alexander Chemical Corporation was the lowest responsive, responsible bidder. Alexander Chemical has been our Sodium Hypochlorite provider in the past. To date, we do not have any reason to deny them award of the new contract. The previous price the Authority was paying competitively per gallon of Sodium Hypochlorite was \$0.69 to Rowell Chemical Corp. from March 2014 until current.

The Operations Staff requests the EOC to award Alexander Chemical Corporation the 3-year Sodium Hypochlorite supply contract for a unit price of \$0.632 per gallon/delivered. The cost of the Sodium Hypochlorite will be expensed to Glenbard's Stormwater Plant O&M budget line 270-1-530440.

- 5.5 Contract Laboratory Services Open Purchase Order Request

*The Authority Staff would like to request waiving of competitive bidding requirements per the Village of Glen Ellyn code, 1-10-2: EXCEPTIONS TO COMPETITIVE BIDDING. Per Administrative Order No. 3 Section "D" Professional Services – Section 3, the Authority is required to seek at least three competitive proposals. The request provides support that the Authority has gathered and evaluated three competitive proposals from qualified laboratories.

This request is made due to the specific requirements that need to be met in order for the Authority to properly test our Influent, Effluent, Anaerobic Digester and Land Applied Biosolids samples per the IEPA and EPA specifications. With your approval, a purchase order will be created under O&M account 270-520806 – Professional Services Laboratory Support for a not to exceed budgeted amount of \$30,000 to be utilized during the 2017 calendar year.

5.6 Filters and Consumables Open Purchase Order Request

The Maintenance staff with assistance from Nissen has researched the filters and consumables necessary for routine preventative maintenance of the new MAN engines located in Building Y – CHP. The engines are beginning CY2017 with approximately 2,000 hours of runtime on each engine.

The estimated CY2017 parts and warranty requirements per engine = \$26,123.24. In accordance with the Nissen 2-year warranty (began May 28, 2016) spare parts are to be purchased through Nissen. It is desired to treat this purchase as a single source warranty required purchase. Yes, these spare parts are available from other vendors, but if purchased through other vendors, warranty issues arise. After the 2-year warranty expires, the spare parts will be competitively bid. Based on the 2-year warranty, it is desired to create an Open Purchase order from account #270-520975 – Equipment Maintenance in the amount of \$55,000 within the \$86,000 budgeted for maintenance on the Nissen Engines on an as required basis.

The Maintenance Staff would like to request waiving of competitive bidding requirements per the Village of Glen Ellyn code, 1-10-2: EXCEPTIONS TO COMPETITIVE BIDDING, and Administrative Order Part C, Section f. *Standardization Purchases*. This request is made due to the specific nature of the consumables that are recommended by the manufacturer and supported during the warranty period of the Nissen Engines. With your approval, a purchase order will be created under O&M account 270-520975 – Equipment Maintenance in the amount of \$55,000.

5.7 Required Lubricants Open Purchase Order Request

The Authority Staff would like to request waiving of competitive bidding requirements per the Village of Glen Ellyn code, 1-10-2: EXCEPTIONS TO COMPETITIVE BIDDING. This request is made due to the specific nature of the lubricants that are recommended by the manufacturer and supported during the warranty period of the Nissen Engines. With your approval, a purchase order will be created under O&M account 270-520975 – Equipment Maintenance for a not to exceed amount \$20,000 within the \$86,000 budgeted for maintenance on the Combined Heat and Power engines during the 2017 calendar year.

Mr. Lanphier directed the EOC to the December 2016 Director's Report and stated the Combined Heat and Power (CHP) Return on Investment slide contains numbers through November with December's number available by the middle to end of January. Mr. Lanphier explained the Monetary Breakdown slide and stated the columns are High Strength Waste Tipping Fees, Electric Energy Produced @ \$0.08 kWh, Additional Natural Gas Costs (comparative cost), Maintenance Costs and . Mr. Lanphier stated the Natural Gas cost is the additional cost for running Engine #1 to produce electricity and thermal heat for the digesters. Mr. Lanphier stated the Natural Gas if not used for Engine #1 would then be used to heat the boilers to heat that associated digester. Mr. Lanphier stated as the winter months progress, this offsetting number should get smaller because the winter months are when the highest heat demands are present.

Mr. Niehaus stated he likes seeing the Average number and asked what the optimal return on investment should be. Mr. Lanphier stated the numbers should be between \$35,000 to \$38,000, and the margins should shrink as the GWA gets into a more competitive market with oils, spark plugs, etc. that are being recommended for use. Mr. Franz asked if \$35,000 gets us to the best case scenario for the 8-year return on investment plan to which Mr. Lanphier stated it does. There was a discussion regarding the amount of natural gas being used.

6. Request to pay a \$10,315 overage to the Combined Heat and Power Guaranteed Maximum Price for field changes provided at the request of the Authority.

Based on my review of the CHP Change Order Log the credits that have been put toward the adders equate to net change of \$10,315.06. The only out of scope change to the CHP project was the addition of the trench drain. The increase in size of the stormwater pump station and the insulation of the overhead hot water pipes inside the building were modifications to the original scope. The trench drain work described is clearly outside the scope of the original project. We thought we would have enough credit to offset the additional work, but we fell short with other in scope changes that consumed the buffer.

Based on my discussions with VGE Public Works Director, Julius Hansen he felt the change was beneficial and supported the work. The design and construction does indeed work and has prevented potential flooding of the MCC room during some significant rain events that occurred during summer and fall of 2016. I would like to make a recommendation based off of the work that was clearly acknowledged as out of scope. Authority staff would request a formal invoice for the overage of construction costs from Baxter & Woodman. This amount would be for the \$10,315.06 mentioned earlier. As for the overage indicated from BWCSI, I am not so inclined to request to cover any of those charges at this was a known risk that should have been included in the original cost. The majority of the costs to complete the out of scope work were absorbed by the CHP project. The amount requested was over and above the available funds for this project and therefor is being requested to be paid from the Capital Fund 40 reserves.

Motion the EOC to approve the out of scope work in the amount of \$10,315.06 to be invoiced to Capital Fund 40 Reserves to the B&W Boller Joint Venture for construction and installation of stormwater runoff protection for Building U.

Mr. Franz motioned and Trustee Fugiel seconded the MOTION to approve the out of scope work in the amount of \$10,315.06 to be invoiced to Capital Fund 40 Reserves to the B&W Boller Joint Venture for construction and installation of stormwater runoff protection for Building U. President Demos, President Giagnorio, Trustee Clark, Trustee Fugiel, Mr. Franz, Mr. Niehaus, Mr. Hansen and Mr. Goldsmith responded "Aye" during a roll call vote. The motion carried.

Mr. Lanphier stated there is a \$10,315.06 overage due to a broken Thickened Waste Activated Sludge (TWAS) Line. He stated this pipe was broken prior to the CHP project, but needed to be repaired for use with the new HSW receiving station. He stated the TWAS Line was repaired with GWA O&M collaborative effort, and there was a significant cost savings. Mr. Franz stated there was a change in Glen Ellyn's policy last year on change orders, taking these from \$20,000 to \$10,000 so this is why this change order is coming to the EOC for approval.

7. Biological Phosphorus Detailed Feasibility Study

On September 23, 2015, Illinois Environmental Protection Agency (IEPA) issued a revised National Pollutant Discharge Elimination Systems (NPDES) permit to Glenbard Wastewater Authority (GWA). As expected, the permit included several requirements related to nutrient limits on phosphorus. Special Condition 17 includes requirements for GWA to submit a phosphorus feasibility study to “evaluate the timeframe, and construction and Operations & Maintenance (O&M) costs of reducing phosphorus levels in its discharge to a level consistently meeting a limit of 1 mg/L, 0.5 mg/L, and 0.1 mg/L.” The feasibility study is due by September 23, 2017. A phosphorus effluent limit of 1.0 mg/L on a monthly basis will become effective ten years after the effective date of the permit, or in 2025.

Baxter & Woodman (B&W) was awarded the NPDES Permit Assistance RFQ/RFP at the February 2016 EOC meeting, with the Danish Hydraulic Institute (DHI) as a subconsultant, to assist with NPDES compliance, including preparing the phosphorus feasibility study. While the NPDES permit timeframe affords a delay to implementing nutrient removal technology, the B&W team has demonstrated an opportunity for GWA to save money immediately by implementing a biological phosphorus removal process.

The recommended alternative represents a net present value of \$10 million over the next twenty years, with savings continuing to accumulate through the full equipment lifecycle. The B&W Technical Memorandum outlines the recommended improvements, comparing against the recommendations of previous evaluations to demonstrate the significant financial benefit and highly innovative solution proposed. The 2013 Facility Planning Report recommendations will be a significant cost to GWA over the next 20 years, as represented in the present worth analysis. The proposed project developed as part of this Phosphorus feasibility study constitutes a highly innovative and cost-saving solution for the conversion to a biological phosphorus removal process and includes major improvements to the secondary treatment process.

In order to proceed with the recommended project, a detailed feasibility study is recommended to finalize basis of design, confirm project cost, and evaluate the need for additional treatment units. This scope, which will constitute a majority of the work in the proposed Danish Grant Work Package 1, can be used toward Danish grant eligibility in the future. However, by conducting this work as part of a separate evaluation, GWA has the ability to pull out of the project at any point.

The proposed conversion to a biological phosphorus removal process represents a net present value of over \$10 million for the Authority, compliance with forthcoming regulations, and annual savings of \$1.6 million. By implementing this solution now, rather than waiting for phosphorus effluent limits to become effective, the Authority will benefit from the energy savings and funding that are currently available. The Authority staff and the Technical Advisory Committee have provided their support for moving forward with the budgeted detailed feasibility study in order to capitalize on energy savings while also benefiting from significant grant funding and low lending rates.

Motion the EOC to waive competitive bidding for Professional Service Per Administrative Order No. 3 Section C (1a) and to award Baxter & Woodman the Detailed Biological Phosphorus Feasibility Study in the amount of \$95,000 to be invoiced to the Capital Account 40 Biological Phosphorus Removal Engineering.

Mr. Niehaus motioned and Trustee Clark seconded the MOTION to table the issue of waiving competitive bidding for Professional Service Per Administrative Order No. 3 Section C (1a) and to award Baxter & Woodman the Detailed Biological Phosphorus Feasibility Study in the amount of \$95,000 to be invoiced to the Capital Account 40 Biological Phosphorus Removal Engineering to the February 2017 meeting. President Giagnorio, President Demos, Trustee Fugiel, Trustee Clark, Mr. Niehaus, Mr. Franz, Mr. Goldsmith and Mr. Hansen responded "Aye" during a roll call vote. The motion carried.

Mr. Lanphier stated in September 2015, the GWA did a RFP for the NPDES permit assistance which was awarded to Baxter and Woodman. Mr. Lanphier stated the last large requirement is the Phosphorous Feasibility that need to be reported to the Illinois Environmental Protection Agency (IEPA) in September 2017. He stated the requested \$95,000 is to proof the process that has been discussed with TAC and the financial advisors. Mr. Lanphier stated attached to this is a potential grant from the Danish government so the focus is not on the possible Danish grant itself, but ensuring doing what is right for the GWA. Mr. Lanphier stated they feel this process that is being brought forward in this Feasibility study is the right process for the GWA. Mr. Lanphier stated the GWA did ask for a change in the timeline which is now three and a half years before this is completed.

Mr. Niehaus asked if the requested \$95,000 is only for the first step in the process to which Mr. Lanphier stated this is just step number one. Mr. Niehaus stated this \$95,000 study is not necessary toward the information being submitted to the IEPA in September. President Demos asked about proprietary equipment for this. Mr. Lanphier stated there is criteria is the grant that the GWA is to evaluate Danish equipment; however, the GWA can seek competitive pricing on this equipment. Mr. Wold stated the GWA is not locked into using the Danish equipment. Mr. Lanphier stated the Feasibility Study that the EOC is reviewing is not the equipment tied to the grant, but the biological process they are looking to develop.

President Demos asked how many wastewater management districts in the state of Illinois are pursuing this grant to which Mr. Lanphier stated the GWA is the only one. Mr. Streicher stated there are about six to 12 wastewater management districts in the state that have CHPs. Mr. Goldsmith asked if the Baxter and Woodman proposal include any of the previous options laid out by Strand to which Mr. Wold stated Baxter and Woodman have internally looked at other options. Mr. Lanphier stated the equipment and grant are not driving this, but the efficiency of the process itself.

Derek Wold and Mandy Shepash from Baxter and Woodman gave a presentation on this possible study. Mr. Wold stated Baxter and Woodman was hired to assist the GWA with the NPDES Permit Requirements special condition for phosphorous. Mr. Wold stated the Danish Hydraulic Institute (DHI) is Baxter and Woodman's sub-consultant to evaluate different opportunities for biological phosphorous removal. Mr. Wold stated there could be significant capital and operational savings which warranted a higher priority conversation on this. Mr. Wold stated a technical advisory committee was put together from members of both villages' staffs, the GWA, Baxter and Woodman and DHI to review this study option, and the committee does recommend the GWA proceeding with the detailed feasibility study.

Mr. Franz asked if the study will look at funding options as well to which Mr. Wood stated this would be a component of this study. Mr. Niehaus asked if the report would still be done by the September 23, 2017 deadline if the GWA does not go forward with this detailed study to which Mr. Wold stated the report would still be ready by the deadline even without this detailed study.

Ms. Shepash referred to Table 3 in the packet and stated there was a Facility Planning Report completed in 2013 that evaluated and recommended improvements over a 20-year planning period to address the GWA's needs, regulatory updates, equipment age and operational issues. Mr. Wold stated they are merging two parts of the original Facility Plan – the part about fixing the existing system and the part about complying with phosphorous. Ms. Shepash stated that the GWA could get away from a high-purity oxygen system as Baxter and Woodman is proposing a Biological Phosphorous Removal System which would have many benefits including capital cost savings, lower annual costs, process resilience and knowledge transfer. Ms. Shepash stated the process is a biological process, and some facilities in the United States are adapting to this process. Mr. Wold stated the Downers Grove Sanitary District is doing pilot work on this process, and Baxter and Woodman are helping with this. Mr. Hansen asked if GWA's facility is uniquely set-up for this process already to which Mr. Wold stated it is.

Ms. Shepash stated there is the grant funding available from the Danish government for this study, and there is a possibility of more grant funding available in the future. She stated the GWA would see a savings Day 1 as the GWA would save over \$420,000 annually in energy costs. Ms. Shepash stated the opportunities include a \$10,000,000+ net present value of the project, a superior mechanism for BioPhosphorous, addressing future nitrogen limits, low lending costs, grant funding opportunities, and this coincides with the IEPA requirement for a Phosphorous Feasibility Study. Ms. Shepash stated their recommendation is to proceed with the detailed feasibility study to evaluate the VFA Production/Carbon Addition, Return Stream Treatment and final costs.

There was a discussion on this possibly study regarding costs, timing and the need for this. Mr. Franz stated he would prefer to wait six months on this study. President Demos stated he would like to hear from the technical advisory committee on this and would like to see a resolution on the dewatering issue first. President Demos suggested bringing this topic back for discussion at the February 9, 2017 meeting. Mr. Niehaus stated putting this off for a month would not change the costs.

8. UV System PLC Replacement – Presented by Rick Freeman

The Authority Staff would like to request waiving of competitive bidding requirements per the Village of Glen Ellyn code, 1-10-2: EXCEPTIONS TO COMPETITIVE BIDDING. Per Administrative Order No. 3 Section "D" Professional Services – Section 3 the Authority is required to seek at least three competitive proposals. The request provides support that the Authority has gathered and evaluated three competitive proposals from qualified firms.

Originally included in Iron Brook UV's quote for refurbishment of the Ultra Violet Disinfection System approved by the EOC at the October 2016 meeting, was the cost to replace the PLC hardware and Panelview Human Machine Interface (HMI), services to be provided by subcontracted integrator Sirron Systems Incorporated of Ontario, Canada. The cost breakdown of their portion of the approval is \$137,688.21. After the award and prior to agreeing to the work Authority staff made a decision to seek pricing from local subcontracted systems integrators. To comply with the "Rule of Three" Authority staff sought two more competitive bids from Donohue and Associates and B&W CSI. The lowest cost for purchase and installation was provided by BW

CSI in the amount of \$105,700. Based on the professional work previously received by BW CSI the Authority requests the EOC waive competitive bidding and award BW CSI the UV System PLC upgrade project in the not to exceed amount of \$105,700.

Motion the EOC to waive competitive bidding for Professional Service Per Administrative Order No. 3 Section "D" Professional Services – Section 3 which is an authorized exception in the purchasing policy to approve the professional purchase and installation of PLC Hardware and HMI services by BW CSI for the Not to Exceed Amount of \$105,700.

Mr. Franz motioned and President Giagnorio seconded the MOTION to approve waiving competitive bidding for Professional Service Per Administrative Order No. 3 Section "D" Professional Services – Section 3 which is an authorized exception in the purchasing policy to approve the professional purchase and installation of PLC Hardware and HMI services by BW CSI for the Not to Exceed Amount of \$105,700. President Demos, President Giagnorio, Trustee Clark, Trustee Fugiel, Mr. Franz, Mr. Niehaus, Mr. Hansen and Mr. Goldsmith responded "Aye" during a roll call vote. The motion carried.

GWA Electrical Superintendent Rick Freeman reviewed this project and stated the Ultra Violet Disinfection System's PLC hardware and Panelview Human Machine Interface (HMI) are being replaced as part of the Ultra Violet system rehabilitation project. Mr. Freeman showed a sample of the PLC hardware on the table and stated it is an industrial digital computer that brings input signals from plant processes and sends controls out to plant processes. He stated the older technology was to use industrial HMIs, and the newer technology is to use a simple PC and leverage existing graphics and hardware. He stated the system controls eight modules and runs automated on its own.

9. Discussion

9.1 Facilities Improvement Project Update – presented by Matt Streicher, along with updates from GWA legal counsel Greg Dose and David Koch with Black & Veatch.

Mr. Streicher stated since the last meeting, there has been some work completed including continued excavation for concrete structures at Filter Effluent, relocation of existing utilities, 20 requests for information and 69 submittals. Mr. Streicher stated before the February meeting, the concrete structures and yard piping installation should be completed. Mr. Streicher stated the concrete mix design submittal has yet to be approved still.

David Koch, Associate Vice President with Black & Veatch, passed out a copy of a letter sent to Boller on January 11, 2017 in reply to a letter Boller sent requesting additional time. Mr. Koch stated the letter sent to Boller asked for information regarding the dewatering plan. Mr. Koch stated nothing has really changed in this situation since he updated the EOC at the December 2016 meeting. Mr. Franz asked about a date for the meeting with Boller to which Mr. Koch stated it would be around January 30th. Mr. Lanphier stated the GWA is paying to bring in a contractor to do two additional borings to evaluate the bedrock level. Mr. Hansen asked if these borings will be done in significant spots to which Mr. Koch stated he can ask their geo-tech for his recommendations as to where to do these two additional borings.

Greg Dose, GWA legal counsel, stated this is a contractor issue, and it sounds like the dewatering issue is a point Boller missed. Mr. Dose stated we do want to deal in good faith with Boller.

Mr. Koch stated if Boller decides to change subcontractors for any reason, Boller is contractually obligated to ask approval from the GWA, and Boller is financially-responsible for this change. Mr. Koch stated if the GWA tells Boller to remove the subcontractor and find a new one, the GWA is then may need to pay some of this cost. Mr. Dose stated it is one thing if it is non-performance, but it a different thing if we do not like their performance, and Mr. Dose suggests staying away from this. Mr. Koch stated until this claim process is possibly done by Boller, the GWA would not be able to prove non-performance.

8. Other Business

a. Technical Advisory Committee (TAC) recap

Mr. Lanphier stated TAC have been discussing the items that are on this agenda.

10.2 Pending Agenda Items

Mr. Franz asked about the CHP Membrane piece. Mr. Lanphier stated this is a part of the Low Pressure Biogas Storage project listed for March.

9. Next EOC Meeting – The next regularly scheduled EOC Meeting is set for **Thursday, February 9, 2017, at 7:30 a.m. at the Glenbard Facility.**

At 9:22 a.m., Mr. Niehaus moved to adjourn, and Trustee Clark seconded the MOTION. President Demos, President Giagnorio, Trustee Clark, Trustee Fugiel, Mr. Franz, Mr. Niehaus, Mr. Hansen and Mr. Goldsmith responded” Aye” during a roll call vote. The motion carried.

Respectfully submitted,

Debbie Solomon
Recording Secretary