

ENGINEER'S REPORT

Pottstown Borough Authority

October 14, 2022

The following summarizes our recent activities performed on behalf of the Pottstown Borough Authority (Authority) from September 17, 2022 through October 14, 2022:

Capital Projects

Water Treatment Plant Improvements – Air Scour System

Pottstown Borough Staff continues to work on the Project. Once ready, HRG and Roberts Filter will provide start-up services to place each filter back into service.

LT2 Enhanced Surface Water Rule: UV Installation Project

Blooming Glen (WTP-21-1 – General Construction) had further delays with delivery of the required piping materials and re-mobilized to site the week of October 10, 2022. The existing piping for Tank No. 6 was dismantled and the new piping including the UV unit has been installed and is ready for A.N. Lynch (WTP-21-2 – Electrical Construction) to install the electrical connections. Blooming Glen is planning on starting the installation of the UV unit on Tank No. 5 starting the week of October 17, 2022. Evoqua (UV unit Manufacturer) is scheduled to be on site October 25th and 26th for the start-up and commissioning of UV units No. 5 and No. 6. Blooming Glen has also tentatively scheduled Evoqua to be on site November 9th and 10th for the start-up and commissioning of UV units No. 3 and No. 4.

A.N. Lynch is approximately 85% complete with their work and have completed the installation of the distribution gear package, panel feeder conduits and wire, panels & transformers, UV feeders, and terminations at existing MCC. A.N. Lynch continues to coordinate with Blooming Glen to complete the remainder of their work.

HRG recommends approval for Application for Payment No. 3 in the amount of \$35,707.25 for Contract WTP-21-2 (AN Lynch) for work completed through September 30, 2022 (anticipated to be received by October 17, 2022).

Due to the delays of the contractors and equipment, HRG is attempting to coordinate another extension of the CO&A with PADEP that currently has a deadline of November 3, 2022, for construction completion and December 7, 2022 for the amended operation permit to incorporate the UV treatment for Cryptosporidium. We are requesting an additional 60 days to ensure that the project is completed on time.

WWTP Capacity Upgrades Project

HRG received the pending product information and quotes from vendors for the following items: magnetic flow meter and concrete valve vaults. The final design package was sent to Mr. Wagner which included a final cost estimate and the remaining cuts sheets and quotes for the pending products. It is important to note the current concerns with material delays that may push the project into 2023.

WWTP Chlorine Conversion Project

HRG performed a preliminary evaluation of probable Chlorine alternatives at the WWTP. Provided below are some initial considerations and description of items evaluated.

An onsite liquid hypochlorite system generates 0.08% hypochlorite which is non-hazardous. Using some typical design assumptions, PBA will need approximately 300 lbs./day of chlorine on average and up to 1,300 lbs./day on peak days. This equates to approximately 45,000 gpd of 0.08% hypochlorite solution on average and upwards of 200,000 gpd on a peak day. A review of manufacturer published literature shows that 2.5 to 3 lbs. of salt are required to produce 1 lb. of free available chlorine; this equates to 750 to 900 lbs. of salt being consumed each day on average. Salt delivery and storage has not yet been evaluated, but it will be discussed and coordinated further with Pottstown Staff.

As a back-up for the onsite hypochlorite system, or to supplement peak flows, PBA may want to keep a 7-day supply of liquid hypochlorite in bulk tanks. Using a conservative assumption that the hypochlorite was stored in the tanks in for more than 30 days and degraded to 5% concentration, it is estimated that 700 gpd will be required for an average day. To satisfy the PADEP recommended minimum 7-day storage capacity at PBA's Hydraulic Design Capacity of 15.6 MGD, at least 12,200 gallons of 5% liquid hypochlorite should be stored on site. Peak flow weeks, when the average daily flows is in the range of 20 MGD, could require as much as 20,000 gallons of 5% liquid chlorine for disinfection during those weeks.

If PBA wanted to commit solely to the use of delivered liquid hypochlorite and schedule weekly deliveries, the concentration could be conservatively estimated at 10%. To satisfy the PADEP recommended minimum 7-day storage capacity at PBA's Hydraulic Design Capacity of 15.6 MGD, at least 6,100 gallons of 10% liquid hypochlorite should be stored on site. Peak flow weeks, when the average daily flows are in the range of 20 MGD, could require as much as 10,000 gallons of 10% liquid chlorine for disinfection during those weeks.

Miscellaneous Projects

WTP NPDES Permit Renewal Application

No significant updates from the September 2022 Report.

HRG previously submitted the NPDES Permit Renewal Application for the Pottstown Water Treatment Plant (NPDES Permit No. PA0052647) on May 26, 2022. PADEP had issued a draft permit on June 22, 2022, and most recently issued a final permit on August 11, 2022 (following coordination with PBA Staff).

WTP Log Inactivation Calculation Review

No significant updates from the May 2022 Report.

Water Valve Exercising Program

No significant updates from the September 2022 Report.

HRG will continue to ensure that all work under Contract No. VP-1 is conducted in conformance with the Scope of Work and intent of the executed Agreement. HRG has informed Wachs that future year efforts are to be completed only during the warmer months (April to October) to minimize cold-weather related field issues.

WTP DRBC Docket Renewal

No significant updates from the September 2022 Report.

Funding Opportunities/Projects

Lead Line Replacement Initiative

Phase 1 – Lead Service Replacement Project (PENNVEST Funding)

The Authority, in their previous meeting, voted to move forward with the PENNVEST project with a reduced scope and the project budget to approximately \$1,285,000 in order to decrease the PENNVEST Loan Amount required for the Phase 1 – Lead Service Replacement Project. The updated amounts for the PENNVEST Grant and Loan are estimated to be \$785,000 and \$500,000 respectively, but the final total will be finalized after the bids are received. HRG has worked to complete and finalize the project and is anticipated to post the project on PennBid on October 14, 2022. The scheduled Bid Opening is November 16, 2022 and settlement and award are anticipated shortly after the January 19, 2023 PENNVEST settlement deadline.

Phase 2 – Lead Service Replacement Project (ARPA Funding)

The Authority voted to move forward with the lead service replacement with \$2,750,000 grant awarded under the Montgomery County ARPA (American Rescue Plan Act) Grant Funding Program. HRG has paused completing final design for this project due to the timely deadline to get the Phase 1 Project out to bid. HRG plans to continue and complete final design efforts for this project after the Phase 1 Project is awarded and when final clarifications and disbursement of the funding are provided. HRG will continue to coordinate with the Recovery Office staff and submit all required documents to move forward with accepting the grant funding offer.

CFA Small Water & Sewer and H2O Grant Programs

As discussed in the Capital Projects Committee meeting, CFA opened their Small Water & Sewer and H2O Grant Programs. Applications are being accepted now through December 21, 2022 and below are some highlights of each program. If the Authority would like to pursue one of these opportunities it is recommended that a high priority capital project is targeted such as the Chlorine Conversion, WWTP Generator, or Belt Filter Press Projects.

PA Small Water and Sewer Program (PA SWS):

- Drinking water, wastewater and stormwater projects are eligible.
- Total project cost must be between \$30,000 and \$500,000.
- Requires a 15% match component.
- \$100 application fee
- A total of \$105.6 million has been appropriated from ARPA funds to this program

H2O PA Water Supply, Sanitary Sewer and Storm Water Projects Program (H2O PA):

- Drinking water, wastewater and stormwater projects are eligible.
- Total project cost must be between \$500,000 and \$20,000,000.
- Requires a 50% match component.
- \$100 application fee
- A total of \$205.4 million has been appropriated from ARPA funds to this program.

Land Development

Hanover Square Commercial Development

Approval of the Contractor's formal bond release request (dated July 27, 2021) is contingent upon acceptance of the required sanitary manhole correction work by Public Works. The Contractor has met with Public Works and has reported that the work will be completed in the near future.

Lower Pottsgrove Township Municipal Complex Development

There are no further updates since the May 2022 Engineer's Report.

243 Shoemaker Road (Specialty Chemical Systems, Inc.) Development

No significant updates from the September 2022 Report.

Following project reactivation, HRG continues to collaborate with the Design Engineer and provide technical assistance on items related to the original land development review letter (dated July 7, 2021). This includes direction and correspondence on the parcel's sewer connection, as well as PADEP Sewage Facilities Planning Module Exemption Request comments. HRG expects a land development resubmission to follow.

759 Sheridan Street (Sheridan Street Subdivision) Development

There are no further updates since the May 2022 Engineer's Report.

14 Robinson Street (Permabond, LLC) Development

There are no further updates since the May 2022 Engineer's Report.

451 Keystone Boulevard (Pottstown Sustainable Energy Plant) Development

There are no further updates since the July 2022 Engineer's Report. The approved O&M Agreement was partially executed by Pottstown Sustainable Energy Plant in December 2021 and has been sent to the Authority Solicitor for completion and execution.

200 Shoemaker Road (Chipotle) Development

No significant updates from the September 2022 Report. There are no further known action items required for this land development project.

HRG has performed three (3) land development reviews for the proposed water and sewer systems (most recent letter issuance date of August 5, 2022). The August 5, 2022 review letter identified that all comments presented in the prior May 27, 2022 correspondence had been satisfactorily addressed, and that the PennDOT Highway Occupancy Permit (HOP) required for the sanitary sewer abandonment work within the S.R. 0100 (State Route 100) Right-Of-Way was issued on July 27, 2022. The Design Engineer had previously provided HRG with the PADEP Sewage Facilities Planning Module Exemption Letter for the project, dated March 22, 2022.

860 Beech Street (Hill School Turf Field) Development

No significant updates from the September 2022 Report. There are no further known action items required for this land development project.

HRG has performed three (3) land development reviews for the proposed water and sewer systems (most recent letter issuance date of July 20, 2022). The July 20, 2022 review letter identified that all comments presented in the prior June 3, 2022 correspondence had been satisfactorily addressed.

816-842 Queen Street Land Development

HRG has performed two (2) land development reviews for the proposed water and sewer systems (most recent letter issuance date of September 29, 2022), and one (1) sewer capacity review for the project. We will continue to collaborate with the Design Engineer (as necessary) to address all remaining review comments. HRG expects a land development resubmission to follow.


204 Shoemaker Road (Panera) Development

HRG has performed one (1) land development review for the proposed water and sewer systems (letter issuance date of June 10, 2022), and one (1) sewer capacity review for the project. A revised land development submission was received on September 30, 2022. HRG is currently performing the second land development review for the proposed water and sewer systems and expects to submit the corresponding review letter in advance of the Borough's October Planning Meeting. We will continue to collaborate with the Design Engineer (as necessary) to address all remaining review comments. HRG expects a land development resubmission to follow.

Please feel free to contact me if you have any questions regarding this report or any other items.

Respectfully Submitted,

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