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STORMWATER ENGINEER'S REPORT

LOWER PAXTON TOWNSHIP/AUTHORITY

Attn: Bradley Gotshall
Report Period: 05/24/23 – 8/22/23
HRG Project Number: R004807.0435

August 22, 2023

MS4 – TECHNICAL ASSISTANCE:

- HRG assigned tasks by LPT
 - MS4 Annual Reporting
 - Completing tasks and compiling records continues for of the 2022-2023 MS4 reporting year. A MS4 Annual Status report is required to be submitted to PADEP no later than September 30, 2023. HRG continues to work with Randy Allen on maintaining permit compliance.
 - HRG has begun assembling the Township's MS4 Annual Report for the 2022-2023 reporting year. A summary of activities to be included in the 2022-2023 MS4 Annual Report are provided below:
 - > **MCM-1:** The Township continues to exceed Public Education and Outreach requirements by publishing multiple stormwater related newspaper & newsletter articles, maintaining the Township's stormwater management website, and posting stormwater related information at the municipal building. Such material is periodically collected for inclusion in the Township's MS4 Annual Report.
 - > **MCM-2:** The Township met the MS4 permit requirements by holding at least one stormwater related public meeting during the 5-year permit term. The Township also solicited public input on the revised PRP as required.
 - > **MCM-3:** The Township continues to meet permit requirements by maintaining a map of the stormwater collection and conveyance system. HRG performed required outfall screening during the past month. Outfall screening reports will be included in Township's 2022-2023 MS4 Annual Report. No suspected cases of illicit discharge were discovered.
 - > **MCM-4:** The Township continues to meet permit requirements by conforming to the conditions of the Memorandum of Understanding held with the Dauphin County Conservation District as it relates to implementation of the NPDES PAG-02 permitting program for construction activities.
 - > **MCM-5:** Similar to MCM-4, the Township continues to meet permit requirements by conforming to the conditions of the Memorandum of Understanding held with the Dauphin County Conservation District as it

relates to implementation of the NPDES PAG-02 permitting program for construction activities. HRG conducted numerous BMP inspections during the past year and inspection reports will be included in Township's 2022-2023 MS4 Annual Report.

- > **MCM-6:** The Township continues to meet permit requirements by providing Township Public Works and Sewer Authority staff annual MS4 training. All public works related inspection, maintenance, and repair records should continue to be provided to Randy Allen ahead of the 2022-2023 MS4 Annual Report. The Township continues to maintain an inventory of all municipal activities, facilities, and operations that have the potential to contribute to stormwater pollution as required by their MS4 Permit. The annual Public Works MS4 training session is in the process of being scheduled with Township staff.

- HRG's understanding of LPT tasks being completed in-house.
 - Continue coordinating with HRG and GHD on GIS mapping efforts.

- PADEP MS4 Inspection
 - HRG assisted Township and Authority staff in preparation of the Township's PADEP MS4 Inspection that occurred on September 15 and 16, 2022.
 - Heather Dock from PADEP conducted the inspection which consisted of a file review of the documented activities performed as required by the Township's NPDES (MS4) Permit authorizing the Township to discharge stormwater to the Waters of the Commonwealth as prescribed by Minimum Control Measures (MCMs) 1 through 6 of the permit conditions. PADEP also visited multiple BMP locations in the Township to determine if proper Operations and Maintenance activities were being implemented as required.
 - The Township has not yet received the MS4 Inspection Report from PADEP. The report is anticipated to detail those items and/or activities found to be compliant and non-compliant with current MS4 Permit requirements and is to be used as a guide to make necessary modifications to attain full compliance.

MS4 – JOINT POLLUTANT REDUCTION PLAN (PRP) (PAXTON CREEK COLLABORATIVE - CRW, LPT, ST):

- PennDOT Partnership Program Management
 - The contractor, RES, completed construction during the Fall/Winter 2021 and field monitoring occurred to verify the performance of the BMPs. The field verification results will be used to report the final sediment reduction credits in the MS4 Annual Report. RES has not yet provided the field verification calculations to the group for reporting in 2023.
 - The Conceptual Pollutant Reduction Plan for PennDOT Contract #2 is under review by PADEP. The project is currently on schedule with respect to completing the PRP sediment reduction goal by the regulatory deadline of July 31, 2025.

OUTSTANDING PROPOSALS:

- Conway Road Fill Site – Design & Permitting [HRG #R004807.0449]
 - Awaiting execution of project assignment that was provided on August 8, 2023.

DESIGN PROJECT STATUS:

- 2023-25 Non-Consent Decree Area Stormwater Improvements {HRG #R004807.0448}
 - Phase 1 - Crums Mill Road Outfall: LPTA is CCTV'ing additional systems along Crums Mill Rd/ Commerce Dr., and HRG is awaiting the results of CCTV to determine any additional replacement areas. Upon recent direction, HRG will begin to finalize the plans for the initial design.
 - Phase 2 – Chestnut Street: HRG sent LPTA a request for 3 SUE test holes to confirm the waterline and existing storm elevations on the 24" storm pipe that has no inlet structures. We are awaiting the results of SUE test holes to complete design.
 - Phase 3 – Prince Street: A field view during a rain event is needed to further evaluate the site issue. Design and final plans will be completed shortly thereafter.
 - Phase 4 – Crums Mill Road Culvert (south of Laraby): HRG worked with LPTA through various guiderail options. Guiderail design is now complete and HRG is working to finalize the plans for this site.
 - Phase 5 – Oak Park Circle: No progress has been made on this area as HRG is awaiting direction from LPTA on the desired scope/study area.
- Old Locust Lane Culvert Replacement {HRG #R000184.0582}
 - Design continues to proceed with consideration of guiderail/road widening in this area completed. GP-11 permit application scheduled to be submitted by August 31, 2023 to PADEP.
- 432 Nyes Road Drainage System Replacement & Permitting; {HRG #R000184.0572}
 - In July 2022, HRG was made aware of a complaint surrounding the failure of an existing drainage system partially located on the property of 432 Nyes Road, which conveys flows from a system in M Street to a channel at the downstream extents of the property. Coordination had been on-going between the property owner and LPT/A staff, and ultimately CCTV was performed on a corrugated metal pipe traversing the property. The CCTV revealed that the pipe had failed and was in need of replacement. Accordingly, LPT/A staff directed HRG to develop a design for the replacement pipe and an associated General Permit 11 (GP-11) application for submission to PADEP.
 - HRG generated the system layout and provided to LPT/A for review, and a finalized version was developed in August based on feedback received. The GP-11 was submitted to DEP on September 6, 2022, and authorization was received on December 29, 2022.

- It is our understanding that LPT/A has been coordinating with the property owner on obtaining the necessary permissions to access the system on the property for replacement and intends to perform the work using in-house labor and resources.
- PC-3E and PC-1F Sanitary and Storm Sewer System Replacement and Rehabilitation Projects; {HRG #R004807.0444}
- The project kickoff meeting was held on May 10, 2022, amongst LPT/A and HRG staff. The general project approach and timeline was discussed, and LPT/A also notified HRG of the need to include a portion of the sanitary sewer system extending to MH-667, due to a recently documented overflow, to the project even though it is located in an adjacent mini-basin. LPT/A also directed HRG to place any efforts pertaining to PC-1F on-hold until further direction was provided. Therefore, all progress updates presented below are specific to PC-3E.
 - Condition assessments including CCTV of the storm sewer system, and air testing along with CCTV has been performed by LPT/A and their subcontractor, Ditch Creek. All results have been transmitted to HRG for review and use in the design. Likewise, LPT/A in-house staff has uploaded the data to the Township's/Authority's GIS database with the assistance of HRG as needed.
 - Initial field efforts to include wetlands absence/presence investigations and delineations, field survey, SUE Level-B, and project area base mapping commenced in June 2022 and were completed in late July 2022 for the project areas consisting of ACP sanitary sewers and all locations with storm sewers.
 - It was determined by LPTA that capacity does not exist for in-house crews to perform Level-A SUE test pitting needed for the project and direction was given to HRG to make arrangements for a subconsultant to perform the work under a supplement to the original engineering agreement. Accordingly, HRG coordinated with the Lexis Group, who performed the Level-B SUE, on scoping and budgeting the effort, amongst other firms. The supplement was prepared and executed by LPTA on February 1, 2023. Subsequently, a kick-off meeting for the Level-A SUE was held on February 8, 2023, and attended by Lexis Group, HRG, and LPTA staff. Commencement of test pitting occurred on February 9, 2023, and was completed in April 2023. A total of 155 test pits were excavated across the project area.
 - Design efforts for both the sanitary and storm sewer systems commenced in August 2022 and progressed to the point where 30% design information was provided to LPT/A for review on September 14, 2022. Subsequently, the design was updated based on comments received, and the 60% design package was submitted on November 23, 2022. More recently, the comments from the 60% design review were addressed, and the 90% submission package was submitted on May 12, 2023.
 - Meetings to discuss the 90% submission comments related to the storm sewer design, sanitary sewer design, and project manual front ends were held in late July/early August, and HRG is updating the project documents according to the comments and discussions from the meetings.
 - A public meeting was held on November 17, 2022, where LPT/A will be presented the project and its implications to the affected residents living in the portion of the project

served with known PVC sanitary sewer main lines. HRG and LPT/A staff met on November 1, 2022, in preparation of the meeting. Likewise, a subsequent public meeting for the residents living in the portions of the project area served by non-PVC sanitary sewer main was held March 2, 2023.

- Storm sewer design in the vicinity of Blue Eagle Avenue was incorporated into the project drawings as authorized by Supplement #2. This area has been included in the 90% design submission for review and comment by LPTA. Upon review of the provided design and cost estimate, it was directed by LPTA staff that this area will not be included in the project.
- Permit applications were developed and submitted to respective regulatory agencies on the following dates:
 - o Highway Occupancy Permit to PennDOT: April 19, 2023
 - Permit approval was received on June 26, 2023
 - o Water Quality Management (WQM) Part II to PADEP: March 7, 2023
 - Permit approval is pending
 - o General Permit 11 (GP-11) to PADEP: March 14, 2023
 - Permit approval was received on June 8, 2023
- Next steps in the project include coordination with utilities on Level-A SUE results and relocation needs, easement acquisition, and NPDES permit application finalization and submission.
- The current project schedule includes the following milestones:
 - Final Design Submission - November 2023
- HRG understands that LPTA is evaluating the need to pursue PC-1F as goals set forth by the DEP consent order may be met upon conclusion of the PC-3E project. Accordingly, alternatives for potential projects in the Beaver Creek basin may be considered in place of PC-1F.

CONSTRUCTION PROJECT STATUS:

- Stonebridge Apartments Stream Restoration - {HRG #R000184.0533}
 - Construction activities have been completed for the project by Flyway Excavating, LLC, and the duration of the construction ran from January through June 2022. The project was deemed acceptable via a project walkthrough with the Contractor, HRG, and LPT/A staff held on June 8, 2022, and project closeout occurred shortly thereafter. There is a correction period and warranty bond in place for the project that will last through December 2023.
 - As a condition of the permitting received from PADEP/USACE authorizing construction of the project, annual monitoring of the stream is required for a period of three years following completion. LPT/A has authorized HRG to perform the monitoring and submit required reports to PADEP/USACE on their behalf. The monitoring for 2023 was conducted in July, and the report is being finalized for submission to DEP/USACE.
 - It is estimated that the project will result in a reduction of 166,750 lbs./yr. in sediment loading to the Paxton Creek and help in achieving the MS4 related sediment reduction goal of 1,694,398 lbs./yr. in the joint planning area.

- To document the project in a fashion that can be used to showcase the results to Township residents and stormwater fee rate payers, HRG has captured periodic photos and videos of the project by use of aerial drone technology. Upon completion of the drone flights, this data will be used to develop a presentation that can be placed on the Lower Paxton Township website. One additional flight is yet to be performed once the vegetation across the site matures.
 - A meeting with LPT, HRG, and Flyway Excavating, LLC was held on July 19, 2023 to review the site in advance of the 2023 Fall planting season to identify items to be addressed as correction period/warranty bond remedies. A list was generated, and the Contractor has committed to addressing them in late Summer/early Fall.
- BC 7-8 Drainage Improvements – Design; {HRG #R000184.0539}
- The project was advertised for bids in early December, and the bid opening occurred on January 21, 2022. HRG assisted in the development of four (4) addendums to clarify the contract documents and scope of the project. Most notably was the addition of the replacement of the Fairmont Drive culvert to the project.
 - The final construction cost estimate for the drainage portion of the project was approximately \$3.5M, and the lowest responsible bid was submitted by Doli Construction Corp. in an amount of approximately \$3.1M for the drainage portion of the project. Doli Construction Corp.'s total bid amount was approximately \$15.75M.
 - A pre-construction meeting for the project was held on March 8, 2022, and a Notice to Proceed was issued on April 12, 2022.
 - On March 8, 2022, a utility coordination meeting was held with HRG, LPTA, Doli, and staff from the various utility suppliers in the project area to discuss the project schedule and status of conflict resolution. Coordination has been on-going between all parties to resolve known conflicts between proposed storm sewers and utilities to accommodate work planned by LPTA in-house crews and Doli.
 - Submittals have been exchanged between the Contractor and Engineer, and all of the necessary submittals related to storm sewer work have been reviewed and approved.
 - The Fairmont Drive culvert has been installed and Fairmont Drive was reopened to traffic on May 4, 2023. The guiderail at the Fairmont Drive culvert was installed on May 11, 2023.
 - The Contractor laid base course paving on Devonshire Road and Merivale Court.
 - The Contractor completed base course and wearing course paving of the driveway to Spring Gate Estate, Springfield Street, Smithfield Street, Timothy Road, Wheatfield Drive, Barley Corn Square, Wheatfield Drive, Clover Road, Fairmont Drive and various driveways across the project site.
 - The current Substantial Completion date for the project is August 1, 2024, and the Final Completion date is October 1, 2024, per the contract documents.
- 2020 Lower Paxton Drainage Improvements {HRG #R000184.0547}
- The designs for the Springford Manor and Byron Avenue Area project areas were combined into a common plan set for the purpose of advertising the 2020 Lower Paxton Drainage Improvements project.

- Bidding documents were prepared, and the project was advertised in the Sun on October 29, 2020, and November 5, 2020. PennBID was utilized to solicit the project, and the bid opening was held on November 24, 2020. The Board of Supervisors awarded the contract to MacMor Construction, LLC in an amount of \$989,188.00 on December 1, 2020, and Notice to Proceed was issued by the Township on December 22, 2020, after all agreements, bonds, and insurance documents were finalized.
- A pre-construction meeting was held on January 13, 2021, however MacMor did not begin work until June 2022 due to other work at the site being performed by utility companies in an attempt to avoid conflicts with the proposed storm sewer.
- At their meeting on May 3, 2022, the Board of Supervisors executed Change Order #1 which increased the Contract Price to \$1,340,524 and extended the Contract Times to October 14, 2022, and November 4, 2022, for substantial and final completion respectively. The increase in Contract Price was related to material price increases that had occurred in the industry since the original time of bidding in late 2020 and to account for additional quantities for restoration related items that could be necessary as a result of the work performed by the utilities.
- Construction has progressed to the point where work in both the Springford Manor and Byron Avenue areas is substantially complete. Accordingly, the certificate of substantial completion and punchlist were issued in November 2022. Accordingly, the Contractor has indicated that they have addressed all of the punchlist items and HRG has been monitoring the site for establishment of vegetation.
- Through the course of the project, there were many instances where the Contractor's schedule and production were impacted by the presence of existing underground utilities. For several of these instances and various other unforeseen items that have occurred during the duration of the project, the Contractor has submitted ten (10) Change Proposals requesting adjustments to the Contract Price and Contract Times. HRG has reviewed these change proposals and provided recommendations to the Township on adjustments to the contract amount and times via Change Order #2. The Board of Supervisors approved Change Order #2 at their meeting on February 21, 2023 which resulted in an overall decrease in contract amount of \$72,067.57 resulting in a final contract amount of \$1,271,367.03.
- Change Order #4 was executed on July 11, 2023 which extended the final completion date to October 13, 2023 to allow the contractor to provide the placement of additional seeding in areas in need during the Fall planting season. This will be the last round of seeding provided by the Contractor, and property owners will be encouraged to responsibly water the seed to promote growth.

MISCELLANEOUS ITEMS:

- Stormwater Fee Credit Application Reviews {HRG #R004807.0441}
 - No credit applications were received in the last reporting period that warranted HRG's review.

- Emergency Contract Support {HRG #R004807.0440}
 - No work orders that necessitated HRG's involvement were developed in the last reporting cycle.

- Wolfersberger Park NPDES Permit Termination {HRG #R004807.0436}
 - HRG is working with DCCD for completion of the NOT pending final stabilization of site with 70% vegetative cover. Extension of NOT was authorized via email by DCCD. HRG completed a site visit on 8/14/2023 and site appeared to exceed the 70% cover threshold. HRG sent DCCD an email on 8/14/2023 to request final NOT closeout.

- Dauphin County Water Resource Enhancement Program (WREP) [HRG #R006524.0433]
 - Advisory Committee meetings occurred on March 22, 2023, and May 4, 2023. Advisory Committee members were asked to answer a few online polls, providing preferences on preliminary program options and preferences. Advisory Committee members or their engineers also provided stormwater project needs. During the meetings, Advisory Committee members were briefed on the project and program results, information on the Dauphin County Countywide Action Plan (CAP), and information on water quality indices for the watersheds which may function as priorities for the next project/2023 program offerings. The program is on track to finalize program offerings for 2023. In June/July, costs will be discussed.

- Commonwealth Financing Authority (CFA) Funding Programs [HRG #R000184.0577]
 - CFA was accepting grant applications associated with the PA Small Water and Sewer (PA SWS) and H2O PA Water Supply, Sanitary Sewer, and Storm Water Project (H2O PA) Programs through December 21, 2022. Ahead of the deadline, HRG assisted the Township in submitting an H2O application associated with the PC-3E Project with a request of \$9,240,500 and a SWS application related to LPTA owned stormwater basin retrofits with a request of \$224,200. Awards are expected to be announced in Fall 2023.
 - The PA SWS Program requires a total project cost of \$30,000 - \$500,000 with a 15% match. The H2O PA Program requires a total project cost of \$500,000 - \$20,000,000 with a 50% match. \$105.6M and \$205.4M has been allocated to the PA SWS and H2O PA Programs respectively.

- PC-3E and PC-1F Sanitary Sewer and Storm Sewer Replacement/Rehabilitation Project Grant Application [HRG #R004807.0448]
 - HRG prepared a Statewide Local Share Account funding program application for the construction phase of the subject project. The amount requested was \$1M, and the application was submitted on March 15, 2022. On March 16, 2023, LPTA and HRG were informed that \$1M was awarded to the project through the LSA program. We are currently incorporating necessary funding requirements into the PC-3E bid package based on the grant agreement.

- Storm Sewer System Inventorying and Condition Assessment partnership with the U.S. Army Corps of Engineers (USACE) [HRG #R004807.0436]
 - LPTA is working with USACE and is coordinating with HRG/USACE to develop a scope of work for stormwater asset mapping and pipe videoing.
 - HRG provided recommended scope language for consideration by USACE; the team is waiting on a draft scope form USACE.

- Stormwater Management Ordinance (SWMO) Update [HRG #R000184.0521]
 - As part of the MS4 Permit, adopting a SWMO that complies with DEP's 2022 Model Ordinance is required with the 2024 permit cycle. Accordingly, HRG has been working with LPT/A staff on the necessary updates.
 - A kickoff meeting was conducted on April 5, 2023. Subsequently, HRG performed a thorough review of the DEP Model Ordinance versus the current SWMO and developed a list of requirements that would need to be incorporated for compliance with the DEP Model Ordinance. HRG and LPT staff met to review the various items on July 26, 2023. HRG is currently working on developing a draft version of the updated SWMO incorporating the items for LPT's review.

Herbert, Rowland & Grubic, Inc.



Jason R. Hinz, P.E.

JRH/LB

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