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STORMWATER ENGINEER'S REPORT

LOWER PAXTON TOWNSHIP/AUTHORITY

Attn: Bradley Gotshall
Report Period: 03/01/23 – 5/23/23
HRG Project Number: R004807.0435

May 23, 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.
 - 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 month 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:

- None

DESIGN PROJECT STATUS:

- 2023-25 Non-Consent Decree Area Stormwater Improvements {HRG #R004807.0448}
 - On February 14, 2023, HRG and LPT staff met to review a list of sites experiencing degrees of drainage related issues that have been reviewed and prioritized by staff. Sites reviewed spanned various areas of the Township including locations along Crums Mill Road, Chestnut Street, Prince Street, and Oak Park. As requested, HRG prepared a retainer agreement project assignment, which was executed by LPTA, to further investigate and/or undertake design efforts on potential solutions to improve the conditions at these sites.
 - HRG has completed the field survey and existing conditions base mapping has been completed. HRG has coordinated with LPT/A regarding the public drainage surveys for the Oak Park Circle portion of the project (Phase 5) and will be setting up a project kickoff meeting with LPT/A staff following an initial field view of the project sites on May 17, 2023.
- 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 to date 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.
- Design efforts for both the sanitary (ACP areas) 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, a meeting to review the submission and questions generated during the design was held amongst LPT/A staff on September 27, 2022. Review comments on the 30% design package were issued to HRG by LPT/A staff on October 12, 2022.
- HRG updated the design to incorporate the comments received by LPT/A on the 30% design submission and submitted an ~60% design package to LPT/A for review on November 23, 2022. A meeting was held amongst LPT/A and HRG staff to review the design on January 17, 2023. Comments on the design package were received from LPTA on January 20, 2023.
- 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.
- A pre-application meeting to discuss NPDES permitting needs on the project was held via web-conferencing on January 18, 2023, amongst LPT/A and HRG staff with Shane Fleming of the Dauphin County Conservation District (DCCD).
- A meeting was held with HRG and LPT/A staff on February 6, 2023, to review the results of the drainage survey in the field. The drainage survey had been sent out by LPTA to residents in the project area requesting information on runoff related concerns known to the community. Upon direction received from LPTA at the meeting, HRG has evaluated and incorporated various features into the design to address some of the survey results reviewed during the meeting.
- A meeting was held on January 11, 2023, at LPT and via Microsoft Teams with HRG, LPT/A, and staff from utilities serving the project to coordinate items relevant to the upcoming Level-A SUE efforts. On-going coordination with the utility contacts has been occurring on the project.

- 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.
- Drawings, technical specifications, project manual front ends, easement exhibits, and the cost estimate were progressed to the 90% submission milestone and transmitted to LPTA on May 12, 2023. HRG employed our internal QAQC and constructability review procedures prior to making the submission.
- Storm sewer design in the vicinity of Blue Eagle Avenue has been 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, although the design should not be considered at a 90% status like the rest of the project. A separated cost estimate for this area was developed and provided with the 90% submission as well.
- Permit applications were developed and submitted to respective regulatory agencies on the following dates:
 - Highway Occupancy Permit to PennDOT: April 19, 2023
 - Water Quality Management (WQM) Part II to PADEP: March 7, 2023
 - General Permit 11 (GP-11) to PADEP: March 14, 2023
- Next steps in the project include meeting with LPTA staff to overview the 90% submission documents, 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.

- 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 project, this data will be used to develop a presentation that can be placed on the Lower Paxton Township website.
- 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 the majority 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 current Substantial Completion date for the project is August 1, 2024, and the Final Completion date is October 1, 2024, per the contract documents.
- BC 2A-C, 5B Construction Phase Services {HRG #R000184.0537}
- Bids were opened on May 24, 2019, and the project was awarded to Doli Construction Corp. with a bid in the amount of \$16,933,333.25 at the August 7, 2019, Board of Supervisors meeting.
 - The last section of pavement was placed on December 14, 2022, in the project area, and it is our understanding that the project is now complete and undergoing the closeout process.
 - As of the punch list dated January 18, 2023, the last flow channels were installed in inlets at the intersection of Griffin Street and Jerome Boulevard.

- 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. It is anticipated that all remaining punchlist work, including vegetative establishment will be completed in the Spring/early Summer. 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.

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}
 - Prior to the sale of the Wolfersberger Park site, LPT/A had obtained an NPDES permit for the development of the site into a park. Accordingly, LPTA had been utilizing the location as a fill site and placing spoils from various projects over a several year period. With the sale of the park, LPTA engaged HRG to terminate the permit on LPTA's behalf.
 - Most recently, Doli had been using the site as a staging area as part of the BC-2/5 sanitary and storm sewer replacement project. In July 2022, a meeting was held on site amongst HRG, LPT/A, and DCCD staff to discuss the state of the site relative to the permit and necessary items to be completed ahead of termination of the permit. It was determined that minor earthwork and vegetative restoration in a few locations would be needed to terminate the permit. Shortly after the meeting, LPTA met with Doli to address these items, and Doli performed some of the corrective measures.
 - HRG submitted a Notice of Termination (NOT) on LPTA's behalf in an attempt to close out the permit on December 12, 2022. On February 1, 2023, HRG and the LPTA were informed that additional vegetative cover was needed in select locations of the site to approve the NOT by the Dauphin County Conservation District (DCCD). This was passed along to Doli to address ahead of a deadline of April 21, 2023, imposed by DCCD.
 - HRG met with DCCD on April 18, 2023, to evaluate the status of the site. The visit indicated that additional time is needed to achieve the necessary stabilization of grass coverage. DCCD indicated via email on May 10, 2023, that an extension has been authorized and tentatively plans to revisit the site the last week of May.

- Dauphin County Water Resource Enhancement Program (WREP)
 - Advisory Committee meetings occurred on was held on March 22 and May 4. 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
 - 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 Spring 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 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 awaiting a grant agreement for review and will incorporate any necessary funding requirements into the PC-3E bid package.
- Storm Sewer System Inventorying and Condition Assessment partnership with the U.S. Army Corps of Engineers (USACE)
 - HRG and LPTA have engaged the USACE on performing inspection via CCTV technological methods of a portion of the public storm sewer system as part of USACE's technical assistance program to help municipalities manage their systems. As part of the arrangement, USACE would commit to paying 50% of the costs for the effort, and LPTA would be responsible for the other 50%. It is anticipated that the total initial effort will cost approximately \$224K (\$112K from USACE and \$112K from LPTA).
 - LPTA and HRG have been coordinating on the project and are currently awaiting for USACE to provide an initial scope for HRG to review and provide feedback on.

Herbert, Rowland & Grubic, Inc.



Jason R. Hinz, P.E.

JRH/LB

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