Director, Bureau of Water Compliance

Attention: Edward Hampston

New York State Department of Environmental Conservation

625 Broadway, 4th Floor Albany, NY 12233-35062

Agreement DEC Index No: CO 1-20170626-244

South Shore Water Reclamation Facility

2023 Q1 Quarterly Report

Dear Mr. Hampston:

We are submitting herewith our Quarterly Report for the period of January 1, 2023, through March 31, 2023.

Very truly yours,

Vincent Falkowski, P.E.

Deputy Commissioner for Environmental Programs

c: NCDPW Hazen and Sawyer ARCADIS DEC

Kenneth Arnold Mark Hanson Peter Glus Katie French

Jane HoudekPaul SaurerGreg BazydolaPaul HardingChris VellaEric MillsMaryanne DioquinoBrian Lee

Tom Zakrzewski Josh Lin Ryan Waldron Andrew Fera Andrew Fleck Jennifer Pilewski

> Mandy Yau Dena Putnick

DEC Agreement Q1 2023 Report



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Background

On October 29th, 2012 Hurricane Sandy (a.k.a. Superstorm Sandy) pushed into the NY-NJ Metro area and caused widespread and unprecedented damage to coastal communities, low-lying residential neighborhoods, and public infrastructure. The Bay Park Sewage Treatment Plant (the "Bay Park STP"), owned by the Nassau County Department of Public Works (DPW), which serves close to half a million Nassau County residents, was damaged by flooding, power loss, and high winds. The Bay Park STP was partially submerged and the major electrical systems, pumping facilities, and processes were inundated with saltwater from the nearby bay area. To correct the damage to the plant, improve the effluent quality and make the plant less vulnerable to future storms the County committed to construct improvements.

The construction of the improvements is catalogued in the Agreement with the New York State Department of Environmental Conservation CO 1-20170626-244 ("Agreement") in January 2018. In accordance with Section VII, Paragraphs A-C of the Modified Agreement the DPW hereby submits to the New York State Department of Environmental Conservation (DEC) the Quarterly Report for the period of January 1, 2023, through March 31, 2023.

Quarterly reports are posted to the County website and can be found via this link: https://www.nassaucountyny.gov/1882/Wastewater-Management-Program

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1.0

Executive Summary

The Bay Park Sewage Treatment Facility Agreement ("Agreement") Index No. CO 1-20170626-244, was entered into by the County of Nassau ("County") and the New York State Department of Environmental Conservation ("DEC") and became effective on January 11, 2018. The Agreement was modified by mutual consent in this reporting quarter, having been approved by the Nassau County Legislature and signed by the County. The modification was fully executed by the State on January 12, 2021. This report has been prepared with respect to the Modified Agreement.

Pursuant to Section VII, Paragraph A of the modified Agreement, "The County shall submit quarterly construction reports ("Quarterly Reports") to the DEC. The Quarterly Reports shall describe the actions which have been taken toward achieving compliance with this Modified Agreement during the previous three-month period". The Modified Agreement requires that this report provide:

- 1. A list of the County's construction contracts necessary to fulfill the requirements of compliance milestones of this Agreement as such milestones are set forth in Appendices A, B, C, D, E and F. This list shall identify, by percentage, the amount of the contract that has been completed;
- 2. A detailed description of: (a) the work performed pursuant to this Agreement during the reporting period, including the status of all milestones; (b) all anticipated activities for the next three-month period; and (c) the status and cost report for all EBPs required by this Modified Agreement;
- 3. Information regarding unresolved delays encountered or anticipated that may affect the future schedule for implementation of the County's obligations under this Modified Agreement, and efforts made to mitigate and/or cure those delays or anticipated delays;
- 4. A description of community relations activities during the reporting period and the activities anticipated for the next three months;
- 5. Any changes in key personnel; and
- 6. Any other issues with the potential to materially affect the projects set forth in this Modified Agreement.

Additional information is included to provide a comprehensive representation of the County's efforts towards achieving compliance with the Agreement. This Quarterly Report updates the status and progress of DPW's compliance with the milestones set forth in the Agreement during the period from January 1, 2023, through March 31, 2023 ("Reporting Quarter").

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11.0

Modification Request and Force Majeure Status

The following table lists modification requests made by the County and DEC responses to date. The previous outstanding milestone modification requests have all been addressed by the first Agreement Modification.

A second Agreement Modification is currently in preparation that will revise the Conveyance Project milestones noted in Table 1 as well as revise the Wet Weather/Flow Reduction milestones that were added to the Agreement via Appendix F previously.

The second Modification will also add a new project to Appendix A, the Hempstead Bay-Hassocks Restoration Project.

The modifications were agreed to and sent to the County for execution on December 27th, 2022. The modification will be fully executed in Q1 2023.

Table 1 – Modification	Requests	and Force	Majeure l	Notifications
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Milestone	Agreement Date	Mod request date	Revised date requested	DEC Response Date	Modified Milestone Date ¹
General Covid-19 FM	N/A	3/19/2020 ²	N/A	6/24/2021	N/A
Bay Park Microtunnel Shafts Complete	5/1/2022	4/1/2022	1/3/2023	12/27/2022	9/1/2023
Bay Park Microtunnel Design Complete	5/1/2022	4/1/2022	7/1/2022	12/27/2022	7/1/2022
Cedar Creek Microtunnel Shafts Complete	6/1/2022	4/1/2022	3/9/2023	12/27/2022	9/1/2023
WW/Flow Reduction	Various	N/A	Various	12/27/2022	Various
Hassocks Restoration	TBD	N/A	N/A	12/27/2022	Various
RSP Supply Chain Delays		9/13/2022	N/A		

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^{1.} Bold denotes current date, italic superseded

^{2.} Force Majeure

III.0

Design Milestone Status

The following table lists the design milestones and statuses for Appendix A of the Agreement.

Table 2 – Design Completion Milestones

Milestone	Agreement Date	Actual/Forecast
Effluent Screening and Disinfection	4/8/2018	1/5/2018 *
East Avenue Ejector Station	2/8/2018	3/2/2018 *

^{*}The table in Section X.0 of this report indicates certification of completed activities.

Project Notes:

All agreement design milestones have been completed and certifications accepted.

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IV.0

Construction Milestone Status

The following tables list the construction milestones and statuses for Appendices A and C of the Agreement. The milestone dates which are established in the Bay Park Agreement may be modified in the future if the County formally proposes an extension of the milestone, based upon its facility planning, and DEC formally accepts a projected delay.

Table 3 – Construction NTP Milestones

Milestone	Agreement Date	Actual/ Forecast
Raw Sewage Pumping Facility	2/26/2021	5/3/2021 A
Effluent Screening and Disinfection	10/29/2020	11/4/2020 A
Secondary Flood Protection	12/18/2019	12/18/2019 A
East Avenue Ejector Station	10/29/2020	11/2/2020 A
Sidestream Deammonification	12/31/2019	12/31/2019 A

Table 4 – Construction Completion Milestones

Milestone	Agreement Date	Actual/ Forecast	% Complete
1 Barnes Avenue – Baldwin	12/31/2019	10/4/2019 A	100%
2 Raw Sewage Pumping Facility	2/15/2024	6/26/2024	56%
3 Sludge Dewatering Facilities	12/15/2018	5/21/2018 A	100%
4 Effluent Screening and Disinfection	8/22/2023	9/4/2023	83%
5 Effluent Tide Pumping Facilities	1/15/2021	5/5/2020 A	100%
6 Electrical Distribution Phase E1-E3	10/23/2020	9/1/2020 A	100%
7 Secondary Flood Protection	6/17/2022	1/28/2022 A	100%
8 Stormwater Pump Stations	3/31/2019	3/28/2019 A	100%
9 Upgrade To 3 Generator Operation	5/19/2019	8/30/2019 A	100%
10 Cedar Dr, Roosevelt et al PS	5/8/2018	1/12/2018 A	100%
11 Wantagh, Newbridge et al PS	4/25/2018	2/12/2018 A	100%
12 Ocean Ave, Mill Rd et al PS	12/5/2018	8/17/2018 A	100%
13 Inwood, Doughty et al PS	7/4/2019	5/13/2019 A	100%
14 Lawrence & Sage Lake PS	8/30/2018	8/13/2018 A	100%
15 East Avenue Ejector Station	10/31/2022	10/17/2022 A	100%
16 Level 1 BNR	5/5/2020	4/30/2020 A	100%
17 Sidestream Deammonification	10/3/2022	9/20/2022 A	100%

^{*} The table in Section X.0 of this report indicates certification of completed activities.

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Project Notes:

1. Barnes Avenue – Baldwin

This project has been completed and milestone certification accepted.

2. Raw Sewage Pumping Facility

Progress This Quarter:

- Continued installation of rigid electrical conduit and wiring for power, controls, and lighting.
- Continued removal of abandoned conduit in existing MCC and Pump Room.
- Continued wiring of equipment in the new electrical room.
- Continued mimic panel wiring terminations.
- Continued rough-in work related to main power feeders (CO#01).
- Completed MOPO to install new valves into existing compressed air system.
- Continued layout and prep work for pump room plumbing.
- Continued miscellaneous metals corrective work list for catwalk and stair tower.
- Started repair and testing of the pump room overhead bridge crane.
- Continued submission of RFI's, MOPOs, submittals, and shop drawings subcontractors/vendors for approval.

Expected Progress Next Quarter:

- Finish relocation of fire standpipe in existing staircase (P-019).
- Finish cover on fiber optic relocation (P-020).
- Finish repairs and testing on the pump room overhead bridge crane.
- Continue miscellaneous metal incomplete items list for stair tower and catwalk.
- Continue installation of 30" valve extensions in pump room for RSP-1 through 4.
- Continue electrical conduit work for the main power feeders (CO#01).
- Start installation of interim transformer (P-029).
- Start to painting floors in new electrical room.
- Start the lock out and demolition of RSP-5.
- Continue coordination of MOPO's with Veolia.
- Continue submission of RFI's, Submittals, MOPOs, Shop Drawings and Subcontractor/Vendor approvals.
- Continue submission of RFI's, Submittals, Shop Drawings and Subcontractor/Vendor approvals.

Note: Current schedule for Raw Sewage Pumps has remained behind schedule due to equipment delivery delays related to COVID and supply chain issues. It is anticipated that the current Consent Agreement completion milestone will not be met as a result. A letter to this effect was issued to DEC June 6, 2022.

3. Sludge Dewatering Facilities

This project has been completed and milestone certification accepted.

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4. Effluent Screening and Disinfection

Progress This Quarter:

- Installed Isolation Butterfly Valve No. 1 and Valve Actuator.
- Installed H&V Three-Way Mixing Valve.
- Continued fabrication of remaining Isolation Butterfly Valves.
- Continued preparation and submission of administrative and technical submittals.

Expected Progress Next Quarter

- Install pressure gauges and temperature measuring instrumentation for the HVAC system.
- Startup and test H&V Unit.
- Program existing Chemical System Control Panel.
- Receive delivery and start installation of Isolation Butterfly Valve No. 2.
- Electrically connect and test flowmeter.
- Continue preparation and submission of administrative and technical submittals.

Note: Current schedule for Effluent Screening is behind schedule due to equipment delivery delays. DEC was notified at the last quarterly meeting. All screens are installed and operating but the delays are exclusively related to the isolation valves. Substantial completion is currently projected 13 days beyond the Consent Agreement date and efforts are being made to make up schedule.

5. Effluent Tide Pumping Facilities

This project has been completed and milestone certification accepted.

6. Electrical Distribution System Phases E1-E3

All phases have been completed and milestone certification has been submitted and accepted.

7. Secondary Flood Protection

All phases have been completed and milestone certification has been submitted and accepted.

8. Stormwater Pump Stations

Construction is complete, milestone has been met, certification of completion has been submitted and accepted.

9. Upgrade to 3 Simultaneous Generator Operation

Construction is complete, milestone certification has been submitted and accepted.

10. Cedar Dr., Roosevelt Ave, Whitewood, Biltmore and Alhambra Pump Stations

Construction is complete, milestone has been met, certification of completion has been submitted and accepted.

11. Wantagh, Newbridge, Merrick & Ray St Pump Stations

Construction is complete, milestone has been met, certification of completion has been submitted.

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12. Ocean Ave, Mill Rd, Woodmere Blvd & Longacre Ave Pump Stations

Construction is complete, milestone has been met, certification of completion has been submitted and accepted.

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13. Inwood, Doughty Blvd, Bayview Ave & Roslyn Rd Pump Stations

Construction is complete, milestone has been met, certification of completion has been submitted.

14. Lawrence and Sage Lake Pump Stations

Construction is complete, milestone has been met, certification of completion has been submitted and accepted.

15. East Avenue Ejector Station

Progress This Quarter:

- Continued working on as-built drawings.
- Removed Engineer's trailer.
- Addressed peeling paint.
- Substantial completion granted 10/17/2022 and milestone certification was submitted to DEC in Q4 2023, which was then accepted 2/6/2023.

Expected Progress Next Quarter:

- Complete as-built drawings.
- Complete demobilization from the site.

16. Level 1 BNR

Construction is complete and certification of completion has been submitted and accepted.

17. Sidestream Deammonification

Progress This Quarter:

- Construction Complete Milestone Certification accepted on November 22, 2022.
- Continued operation and ramp-up of the Sidestream system.
- Continued submission of O&Ms, As-builts, Closeout submittals, and technical submittals.
- Completed 10-day water test for second Sidestream train.
- Started installation of Decanter sample lines per operator-initiated request.

Expected Progress Next Quarter:

- Continue submission of O&Ms, As-builts, Closeout submittals, and technical submittals.
- Continue monitoring, ramp-up, and maintaining operation of the Sidestream Centrate treatment process.
- Complete installation of Decanter sample lines (P-65).
- Continue general punch list items.

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V.0

Inter Municipal Agreement

Paragraph VII.G of an administrative Consent Order (#C01- 20151020-142) between DEC and the City of Long Beach (City) requires the City to enter into an Inter-municipal Agreement (IMA) with the County. The County was to enter into a fully executed IMA with the City within 180 days of the effective date of this Agreement. The IMA is to address the diversion of wastewater from the WWTP currently owned and operated by the City to the Bay Park WWTP.

The IMA was executed by both parties on July 26, 2019 as noted in the modified Agreement paragraph VII.F.

The County and the City of Long Beach have executed the first Contract Administration Memorandum (CAM) that details the roles and responsibilities of the two parties with respect to project funding and financing. A second CAM is currently being finalized summarizing the transactional details of payments. A third CAM was executed that constitutes an agreement by which the County will accept sludge residuals from the City due to the City's digester system becoming disabled.

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VI.0

Nitrogen Schedule of Compliance

The milestones for the Nitrogen Upgrades as listed in the Modified Agreement are listed in the following table.

Table 5 – Bay Park WPCP Nitrogen Milestones

Tubic 5 Day Furk 1/1 CT THE Open Minestones				
Description of Work	Agreement Date	Projected/Actual*		
Submit an approvable BNR Operation and Mainte-	1/8/2020	1/8/2020		
Begin operation of the 6-month start-up period	6/1/2020	6/1/2020		
Begin the 12-month performance period	1/1/2021	1/1/2021		
End 12-month performance period	12/31/2021	12/31/2021		
Submit performance data	4/1/2022	4/1/2022		
Submit an approvable updated BNR O&M and Sidestream O&M Plan	6/1/2022	6/1/2022		
Begin operation of the 6-month start-up period for updated BNR and Sidestream O&M plan.	11/1/2022	11/1/2022		
Begin the 12-month performance period for updated BNR and Sidestream O&M plan.	5/1/2023	5/1/2023		
End 12-month performance period for updated BNR and Sidestream O&M plan.	4/31/2024	4/31/2024		
Submit performance data and approvable Final BNR and Sidestream O&M Plan.	8/1/2024	8/1/2024		

^{*} The table in Section X.0 of this report indicates certification of completed activities.

The 6-month startup and optimization period for the sidestream system was initiated November 1, 2022, meeting the milestone date.

Performance data demonstrates continued compliance with the revised nitrogen limit that went into effect July 1, 2022.

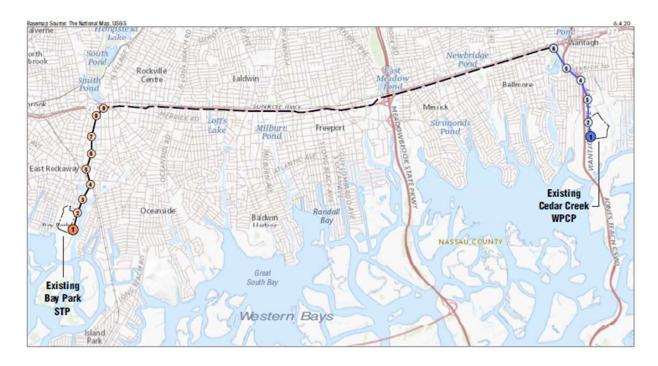
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VII.0

Conveyance Project

Executive Summary

The Bay Park Conveyance Project (Project) is being delivered by the Department of Environmental Conservation (DEC) Project Team in partnership with the Nassau County Department of Public Works (DPW) via the design-build project delivery method. The Project would divert treated Bay Park STP effluent from the existing outfall in Reynolds Channel to the Cedar Creek WPCP ocean outfall. The diversion of treated water from Bay Park STP (now known as the South Shore WRF) to Cedar Creek WPCP would remove between 75 to 90 percent of the nitrogen currently discharged into the Western Bays.



The Project includes: (1) constructing a new dedicated pump station at the Bay Park STP, (2) rehabilitating an existing aqueduct under Sunrise Highway, (3) constructing a new 70 inch diameter force main between the Bay Park STP and the existing aqueduct, (4) constructing a new 70 inch diameter force main between the Cedar Creek WPCP and the existing aqueduct, and (5) constructing a standpipe receiving tank connection at the existing Cedar Creek WPCP pump station.

The new pump station at the Bay Park STP will have a 75 MGD capacity and will be fully mitigated from the 500-year storm surge.

The existing aqueduct is a steel pipe that is to be slip-lined with a polymer pipe with the interstitial space filled with grout to maximize protection against leakage.

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Construction of the new force mains will use microtunneling technology. Microtunneling is a method of constructing underground tunnels to install pipes, such as sewer mains, using a remotely operated microtunnel boring machine (MTBM). This method avoids the need to excavate long sections of open trenches at the ground surface to lay pipes. The project includes the 14 construction shafts, approximately 30 feet in diameter, at the beginning, end, and at several locations along the force main alignments, establishing staging areas of approximately half an acre around each construction shaft. The tunnel for each new force main would then be drilled between the shafts at depths below current ground surface of approximately 20 to 60 feet.

A steel standpipe is to be constructed at the Cedar Creek WPCP which will serve to protect the force main from transient pressures that could result from power outages. The Cedar Creek pump station is also to be upgraded with new pumps, motors and drives.

The Modified Agreement reflects the project name change from the Effluent Diversion Project to the Conveyance Project. The initial modified milestones for the Conveyance Project are listed in the following table:

Table 6 – Initial Conveyance Project Milestones

Description of Work	Agreement Date	Projected / Actual	Milestone Submitted	Milestone Accepted
DEC Conveyance Team Selects Best- Value Proposal	10/26/2020	10/22/2020	2/17/2021	2/17/2021
County/DEC Project Team to submit approvable major and minor mile- stones in a Baseline Schedule for De- sign-Build Project Completion, includ- ing Mechanical Completion, Substan- tial Completion, and Final Acceptance	3/26/2021	4/6/2021	4/6/2021	4/13/2021
Repair of the Cedar Creek Outfall Diffuser	10/31/2021	10/31/2021		
Notice to Proceed to Construction	2/26/2021	4/4/2021	3/9/2021	3/9/2021
Construction Start Early Works	6/25/2021	6/25/2021		
Commence Diversion of Wastewater from Bay Park to Cedar Creek	10/25/2024	10/25/2024		

Three milestones were achieved and accepted, one of which was a new set of milestones that supersede those in Table 6. The revised list of milestones is shown in Table 7 on the following page.

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Table 7 – Conveyance Project Milestones

Table 7 – Conveyance Project Milestones							
Description of Work	No.	Agreement Date	<i>Projected </i> Actual	Milestone Submitted	Milestone Accepted		
Notice to Proceed	1	3/4/2021	3/4/2021	3/9/2021	3/9/2021		
BPM Construction Start	2.1	10/1/2021	5/1/2021	5/12/2021	5/12/2021		
BPM Design Start	2.2	4/1/2021	4/15/2021	4/16/2021	4/19/2021		
BPM Shafts Complete	2.3	9/1/2023	9/1/2023				
BPM Design Complete	2.4	7/1/2022	6/28/2022	6/28/2022	6/29/2022		
BPM Construction End	2.5	12/30/2023	12/30/2023				
CCM Construction Start	3.1	12/1/2022	12/1/2022	11/8/2022	11/19/2022		
CCM Design Start	3.2	7/1/2021	6/29/2021	6/29/2021	7/2/2021		
CCM Shafts Complete	3.3	9/1/2023	9/1/2023				
CCM Design Complete	3.4	9/1/2022	6/28/2022	6/28/2022	6/29/2022		
CCM Construction End	3.5	12/30/2023	12/30/2023				
BPEPS Construction Start	4.1	5/1/2021	5/1/2021	5/12/2021	5/12/2021		
BPEPS Design Start	4.2	4/1/2021	4/15/2021	4/16/2021	4/19/2021		
BPEPS Design Completion	4.3	10/1/2022	10/1/2022	10/11/2022	10/12/2022		
BPEPS Construction End	4.4	12/30/2023	12/30/2023				
SHA Rehabilitation Construction Start	5.1	10/1/2021	10/1/2021	9/28/2021	9/29/2021		
SHA Rehabilitation Design Start	5.2	4/1/2021	4/15/2021	4/16/2021	4/19/2021		
SHA Rehabilitation Design Complete	5.3	12/30/2022	12/30/2022	10/11/2022	10/12/2022		
SHA Rehabilitation Construction End	5.4	12/30/2023	12/30/2023				
CCEPS/RS Construction Start	6.1	8/1/2022	5/25/2022	5/25/2022	6/1/2022		
CCEPS/RS Design Start	6.2	8/1/2021	6/29/2021	6/29/2021	7/2/2021		
Cedar Creek Outfall Repair	6.3	12/1/2021	12/1/2021	11/19/2021	12/3/2021		
CCEPS/RS Design Completion	6.4	10/1/2022	10/1/2022	10/11/2022	10/12/2022		
CCEPS/RS Construction End	6.5	12/30/2023	12/30/2023				
Mechanical Completion	7	12/30/2024	12/30/2024				
Substantial Completion	8	7/30/2024	7/30/2024				
Final Acceptance	9	11/30/2024	11/30/2024				

BPM: Bay Park Microtunnel
CCM: Cedar Creek Microtunnel
BPEPS: Bay Park Effluent Pump Station
SHA: Sunrise Highway Aqueduct
CCEPS/RS: Cedar Creek Effluent Pump Station/Receiving Station Bold notes modified milestones per December 5, 2022 DEC Letter.

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Progress This Quarter:

During 2023 Quarter No. 1, there was continued progress to advance the overall project objectives, which included review and approval of subsequent Design Changes (FDCs/NDCs) and design technical memorandums. DP-11A - Rehabilitation of the Cedar Creek Outfall Clean-out Chamber and Cap (Clean out chamber hatch) RFCD package is still under EOR development.

Construction activities are listed by location below.

The Project's administrative goals in the form of reporting, meetings, document control, schedule reviews, quality assurance, and oversight activities continued. Construction activities such as shaft excavation, backfill, CLSM pour, final build out, SWPPP implementation, and other civil works were completed in accordance with RFCD packages. Summarized below are particulars on design, submittals, and construction progress by reach/location during the period.

Bay Park Effluent Diversion Pump Station:

- Received and performed detailed quality and compliance reviews for following technical design submittal: DPP-007 - BP Limited Hazmat Report - Supplemental Phase 1 Asbestos Abatement Clearance Letter and Design Change NDC-0025 as a result of UCD No. 7 - Additional Pump Equipment.
- Reviewed and processed numerous works plans and construction submittals, including but not limited to, valves, wet well, BPEDPS low roof rebar shop drawings, and electrical product data submittals. Owner's Agent requested SWPPP amendments for this area due to field changes post RFCD.
- Pile caps were placed; first and second floor support columns, beams, and floor slabs were formed and placed. The electrical conduits for the first floor were placed in the rebar grid with stub-ups prior to the first-floor concrete pour. For UCD No. 6 Bay Park Effluent Conduit Bypass, the bulkhead was delivered, and the site was prepared. The bulkhead was installed to block off the wet well and sluice gate.

Bay Park Microtunnel:

- Received and performed detailed quality and compliance reviews for technical design submittal: DPP-0020 6146 Bay Park Drives 3-4 Limited Geotech Investigation.
- Reviewed and processed numerous work plans and construction submittals, including the revised micro-tunnel response level plan. Owner's Agent (OA) requested SWPPP amendments for this area due to field changes post RFCD.
- Installed manhole, followed by the steel riser piping in BP1. BP2 site curb and sidewalk work began, backfilling of BP2 shaft with CLSM to the cap beam. BP3 to BP4 tunnel run was completed.

Sunrise Highway Sliplining:

- All Design Packages in this area have been approved. FDC-0027.00 MPT Work Pit I was approved this period.
- Reviewed and processed numerous work plans and construction submittals, including but not limited to, process valves, response level plan, and CARV manhole rebar shop drawings. OA requested SWPPP amendments for this area due to field changes post RFCD.

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- Bulkhead east side of Pit A was installed for the annular grouting from Pits A to D. SOE below grade was cut and backfill with CLSM and temporary pavement restoration with hot asphalt of Pits B and C were completed. Vent pipe to sidewalk installed at Pit B. No slip-line work was completed from Pits D to FF. At Pits G, GG, and H, installed vibrations and geotechnical instrumentation and collected baseline readings. Mobilized/setup MPT, excavated and installed SOE, removed 48" gate valve and reducer at Pit G. Cleaned and prepared aqueduct pipe from Pit G to Pit GG. From Pits GG to L, FRP slip-line pipe was pushed and grouted. At Pit GG, mobilized/set-up pit, installed SOE/excavated, installed pipe supports, and installed permanent bulkhead west of pit. Completed grout annulus from Pit H to Pit GG.
- Cleaned and prepared aqueduct pipe towards Pit I and Pit GG thru Pit G, installed jacking equipment thru Pit GG towards Pit G, jacked pipe towards Pit I, conducted pipe joint tests between Pit H and Pit I, annular grouting from Pit I to Pit N was completed, and installation of closure pipes from Pit H to Pit I and coupling were completed. Pipe was jacked from Pit G towards Pit GG and conducted pipe joint tests to Pit GG. SOE below grade was cut and backfill with CLSM and temporary pavement restoration with hot asphalt of Pit H was completed. Cleaned and prepared aqueduct pipe towards Pit H, jacked pipe towards Pit H, conducted pipe joint tests to Pit H, installed permanent bulkhead west of Pit I, installed closure pipe at Pit I, and coupling with access manhole and MARV completed at Pit I. Backfill with CLSM/cut SOE/temporary restoration of Pits I and K are ongoing.
- SOE below grade was cut and backfill with CLSM and temporary pavement restoration with hot asphalt of Pit L, N, Q, R, T, U, and V were completed. Installation of closure pipe, coupling with access manhole, & MARV were completed at Pit K. Cleaned and prepared aqueduct pipe towards Pit L, jacked pipe towards Pits L, M, and N, conducted pipe joint tests between Pit M to Pit N and between Pit M to Pit L. Installed permanent bulkhead east of Pit M and installation of closure pipe Pit M and coupling completed. Bulkheaded the new FRP slip-line pipe on the east side of Pit O. Bulkheaded and capped steel pipe in Pit W. Poured thrust block where steel pipe turns to the south in Pit W. This work was done in preparation of the hydrostatic test from Pit O to Pit W.

Cedar Creek Microtunnel:

- All Design Packages in this area have been approved.
- Reviewed and processed numerous work plans and construction submittals, including but not limited to, IJS layouts, wet tap installation, and revised micro-tunnel response level plan. OA requested SWPPP amendments for this area due to field changes post RFCD.
- Installed FRP pipe in CC2, connecting CC1 to CC3. Completed tunneling between CC2 to CC3. Shaft CC6 completed. Tunneling between CC5 and CC6 completed. Shaft buildout for CC6 completed.

Cedar Creek Effluent Pump Station/Receiving Station:

- All Design Packages in this area have been approved.
- Reviewed and processed numerous work plans and construction submittals, including but not limited to, electrical product data, standpipe tank, rebar drawings for CC6 to Pit W trench-vault and work pits, and valves. OA requested SWPPP amendments for this area due to field changes post RFCD.

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 Cedar Creek electrical room demolition of pre-existing concrete pads that are no longer needed (UCD No. 5 – Cedar Creek Electrical Room Demolition). Started pump station pipe lead abatement work and completed asbestos abatement at Cedar Creek Pump Station (Phase 1 of UCD No. 8 - Cedar Creek Hazmat Abatement). Pump station electrical conduits were installed. Wet tap tie-in SOE completed.

Expected Progress Next Quarter:

Bay Park Effluent Diversion Pump Station:

- All Design Packages in this area have been approved.
- UCD No. 6 work will continue. Start masonry work and continue concrete structure. Continue to install sluice gates and prepare for their field test.

Bay Park Microtunnel:

- All Design Packages in this area have been approved.
- Sidewalks and restoration to be completed at BP2; site to be returned to the Nassau
 County Parks Department. Start micro-tunneling from BP5 to BP7. Shafts BP8 and BP9
 to be excavated.

Sunrise Highway Sliplining:

- All Design Packages in this area have been approved.
- Hydrostatic test to be done from Pits O to W. Complete active work pits, slip lining, and backfill with CLSM. Final restoration to be done at Pits N to V.

Cedar Creek Microtunnel:

- All Design Packages in this area have been approved.
- Continue to set-up micro-tunneling equipment for CC4 to CC5 run and contact grout CC5 to CC6.

Cedar Creek Effluent Pump Station/Receiving Station:

- Anticipate receipt of one (1) RFCD package for DP-11A CC Outfall Cleanout Chamber Preliminary Study.
- Wet tap to the Cedar Creek Effluent Conduit. Install helical piles for Cedar Creek Receiving Station. Continue installation of pump station electrical conduits. Continue pump station pipe lead abatement. Begin replacement of Pump #3. Conduct dynamic vibratory compaction at the loss of ground on the access road between the CC1 and CC2 microtunnel run. Conduct CPT to verify soil density achieved by dynamic vibratory compaction and compare to CPT data of the original subsurface conditions at the beginning of the project.

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VIII.0

Wet Weather Flow Reduction

The Modified Agreement has added the following compliance schedule for Wet Weather Flow Reduction, as listed in the following table.

Table 8 – Wet Weather Flow Reduction Milestones

	Description of Work	Agreement Date
1.	Capacity, Management, Operation and Maintenance (CMOM) Program a. Submit CMOM plan for Bay Park STP and Cedar Creek WPCP b. Begin implementing the approved CMOM plans	1/27/2023 Upon DEC Approval
2.	CMOM Program – Submit Operating Plan for Bay Park Conveyance System	3/1/2023
3.	Inflow and Infiltration (I/I) Study Work Plan a. Submit I/I study work plans for Bay Park STP and Cedar Creek WPCP b. Conduct I/I studies c. Submit Final Report on Findings	 a) 3/31/2023 b) Upon DEC approval of the I/I Work Plan c) Within 12 months of work plan approval or per approved
Ti itiz	Inflow and Infiltration (I/I) Reduction Plan he County shall use the results of the I/I Study to identify and priorze cost-effective I/I reduction projects using a data-driven cost/benit approach consistent with best industry practices.	

The County has submitted the CMOM plans, Operating Plan, and I/I Study Work Plans to DEC for review in this reporting quarter.

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IX.0

Environmental Benefit Projects

The formal proposal for the Cedar Creek Kayak Launch was submitted to DEC on August 9, 2021 and was approved on September 24, 2021. The project plan resubmittal was approved by the DEC Region 1 permitting group on June 6, 2022 and the USACE application was submitted on July 11, 2022 where it remains under review.

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Certification of Completed Activities

The following table lists the activities for which certification of compliance were submitted.

Table 9 – Completed Activities

Milestone	Date	Certification	Certification
Minestone	Completed	Submitted	Accepted
Effluent Screening and Disinfection – Design	1/5/2018	7/5/2018	9/13/2018
East Avenue Ejector Station - Design	3/2/2018	7/5/2018	9/13/2018
Cedar Dr, Roosevelt et al PS - CC	1/12/2018	7/5/2018	11/27/2018
Wantagh, Newbridge et al PS – CC	2/12/2018	7/5/2018	11/27/2018
Sage Lake and Lawrence PS – CC	8/13/2018	8/24/2018	11/27/2018
Ocean Ave, Mill Road et al PS – CC	8/17/2018	9/19/2018	11/27/2018
Sludge Dewatering Facilities – CC	10/12/2018	10/24/2018	1/4/2019
Inwood, Doughty et al PS – CC	2/19/2019	2/28/2019	5/1/2019
Stormwater Pump Stations – CC	3/28/2019	4/3/2019	4/19/2019
Upgrade to 3 Generator Operation – CC	8/30/2019	9/12/2019	11/7/2019
Barnes Ave-Baldwin – CC	11/22/2019	11/25/2019	2/25/2020
Electrical Distribution Upgrades – CC	9/1/2020	10/23/2020	10/30/2020
Secondary Flood Protection – NTP	12/18/19	12/31/19	12/31/19
Secondary Flood Protection – CC	1/28/2022	2/2/2022	4/22/2022
Sidestream Deammonification – NTP	12/31/19	12/31/19	12/31/19
East Avenue PS NTP	10/29/2020	10/29/20	11/2/2020
Effluent Screening and Disinfection NTP	10/29/2020	10/29/20	11/2/2020
Level 1 BNR – CC	4/30/2020	5/5/20	10/30/2020
Effluent Pumping Facility – CC	5/5/2020	6/10/20	10/30/2020
Sidestream Deammonification – CC	11/22/2021	10/10/2022	11/22/2022
Submit Approvable BNR O&M Plan	1/8/2020	1/8/2020	4/13/2020
Begin operation of the 6-month start-up period	6/1/2020	7/22/2020	11/8/2022
Begin performance period BNR	1/1/2021	1/13/2021	1/13/2021
Raw Sewage Pumping Facility NTP	5/3/2021	4/30/2021	5/5/2021
Complete performance period BNR	12/31/2021	1/20/2022	1/21/2022
Submit Approvable Revised BNR O&M Plan	6/1/2022	6/1/2022	6/29/2022

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Milestone	Date	Certification	Certification
	Completed	Submitted	Accepted
Submit CMOM plans for South Shore and Cedar Creek	1/26/2023	1/26/2023	
Submit Operation Plan for Conveyance System	3/7/2023	3/7/2023	
Submit I/I Study Work Plans	3/30/2023	3/30/2023	

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XI.0

Community Relations

From January through March 2023, the State, County, and Design Builder continued in their efforts to disseminate and field community concerns via various community engagement initiatives for the Bay Park Conveyance Project.

On March 15 from 6-7:30pm, the State, County, and Design-Builder held an eighth quarterly general public information session (since the Project's Notice-to-Proceed) via Zoom to update communities on the Project's construction progress, reinforce its mission, and to answer any questions from participants. Discussion topics that affect the public included noise and vibration monitoring as well as construction schedules.

Meetings with local elected officials and first responders took place on February 28 and March 28, where government officials and fire marshals were briefed on the Project's construction progress, safety measures and traffic control procedures. The invited entities also had the opportunity to ask questions directly to the Project team regarding any concerns.

Stakeholder meetings which included chambers of commerce, local civic associations, and homeowners' associations also took place during Q1: on January 25, February 22, and March 29. During these meetings, local stakeholders were invited to listen in on the Project's updates and raise any concerns directly to the Project team. WBC answered questions regarding the timeline of construction at Sunrise Highway Pits.

The Project team continues to respond to and address public inquiries, release monthly project construction lookaheads and quarterly newsletters, engage in outreach to businesses and residents via canvassing, local events, social media, e-blasts, as well as maintaining a project website.

2023 O1 Outreach Summary:

2025 Q1 Outreach Summary.		
Item/ Description	Dates	
Quarterly Public Information Session	• March 15	
Monthly Meeting with First Responders and Elected Officials	February 28March 28	
Monthly Meeting with Stakeholders, i.e. Chambers of Commerce, Civics, and Homeowners' Associations	January 25February 22March 29	

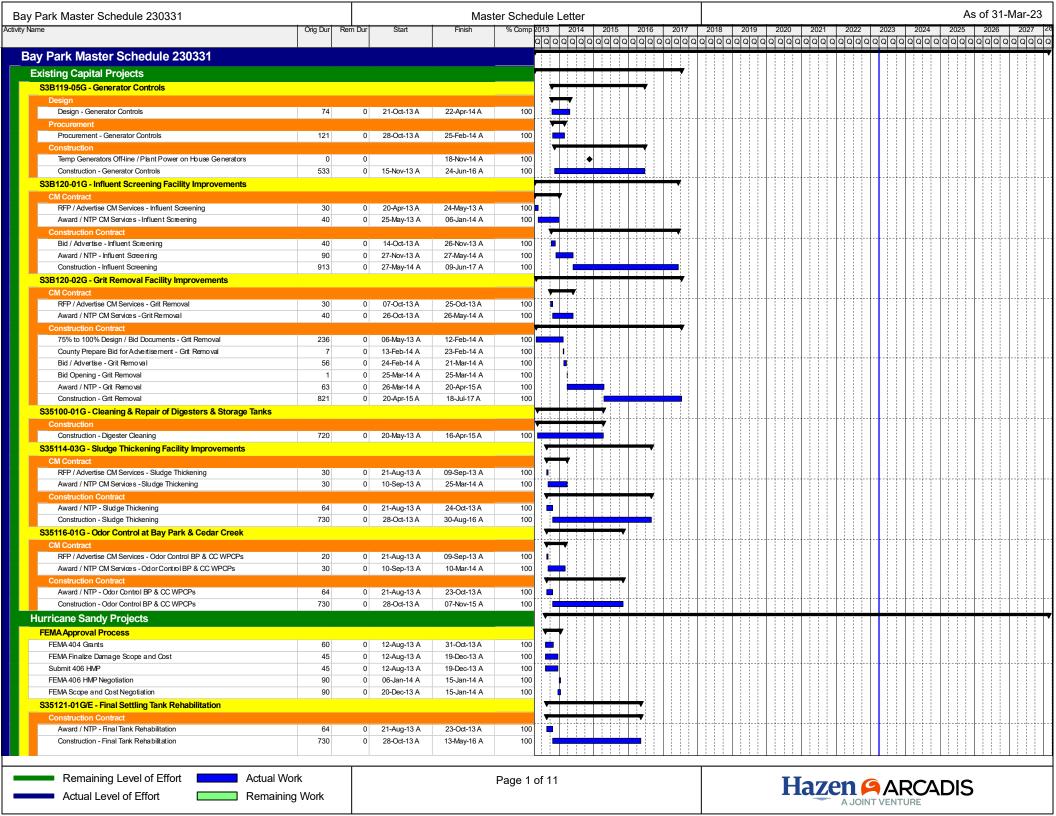
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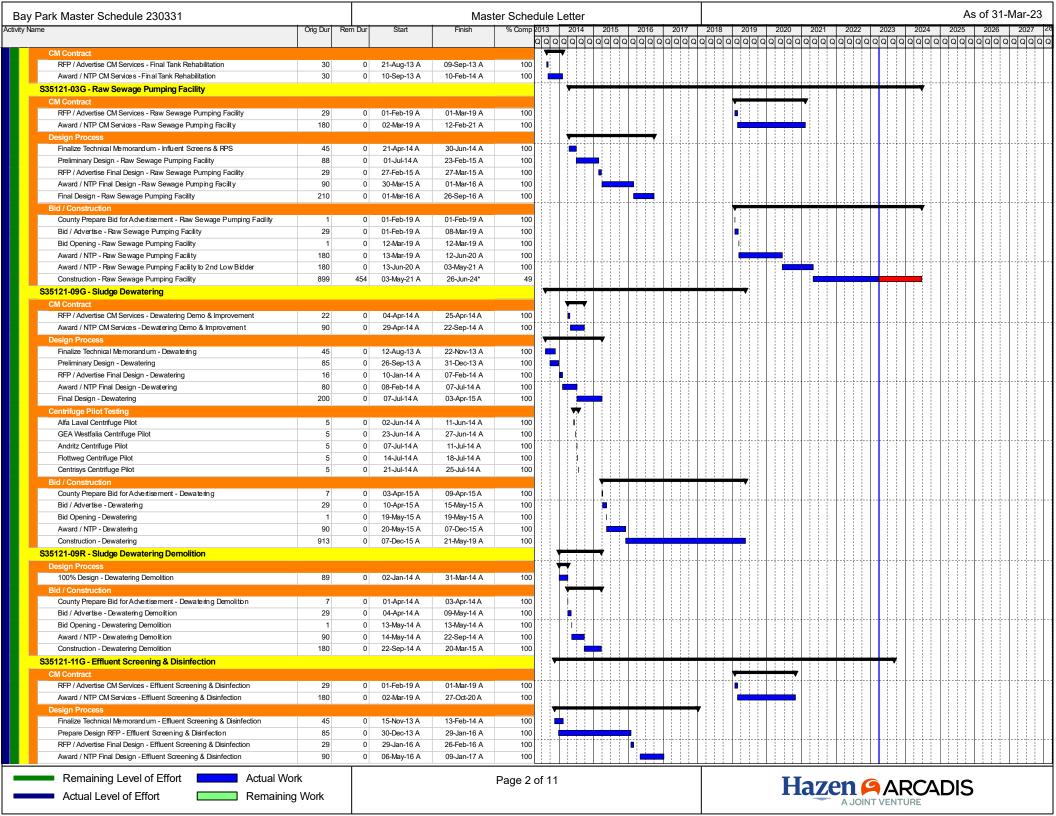
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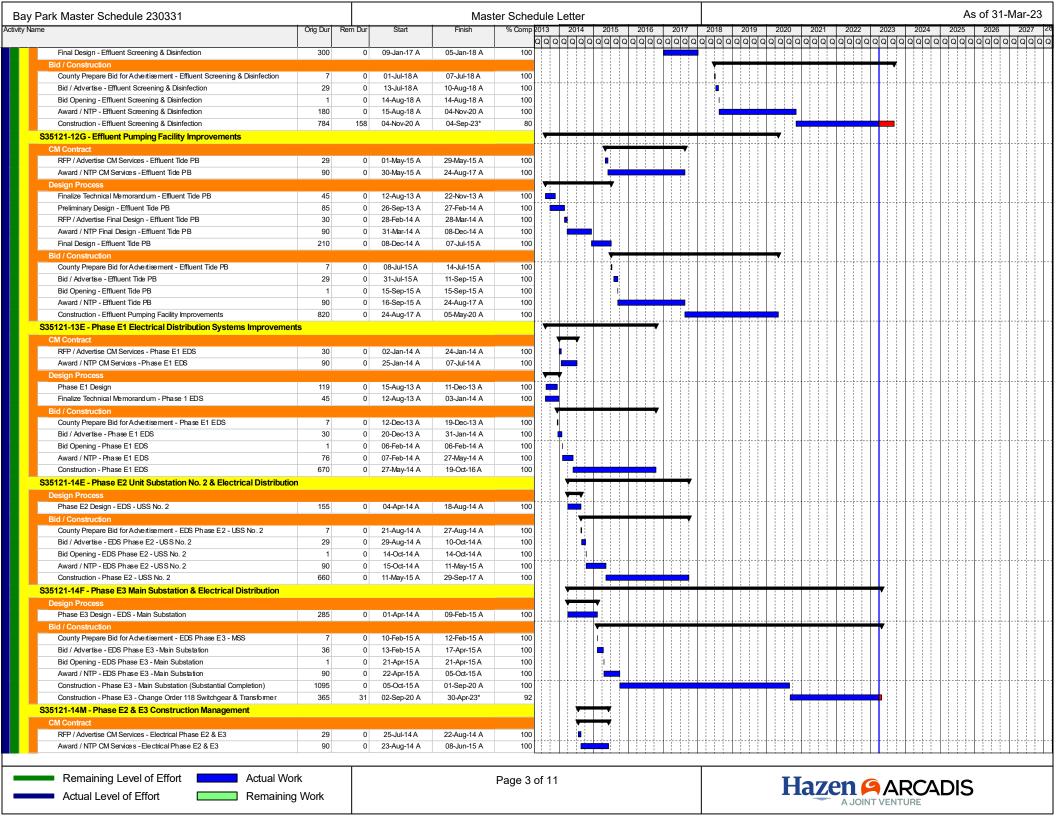
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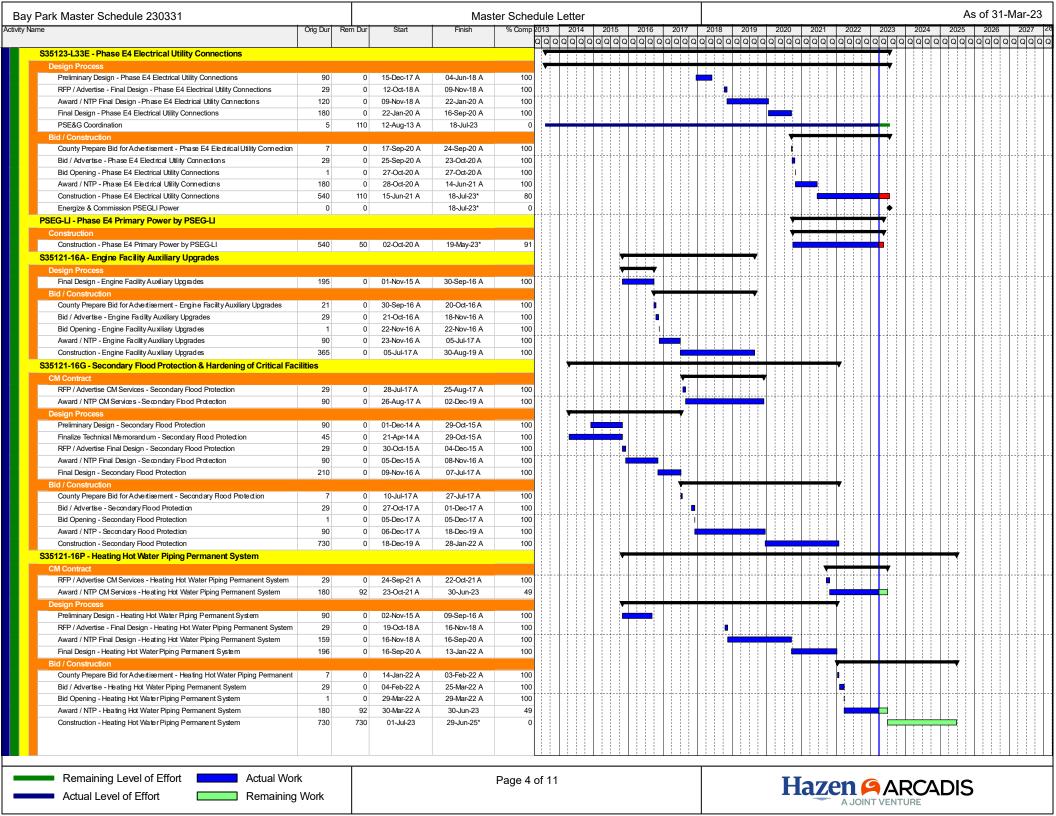
1. Program Master Schedule

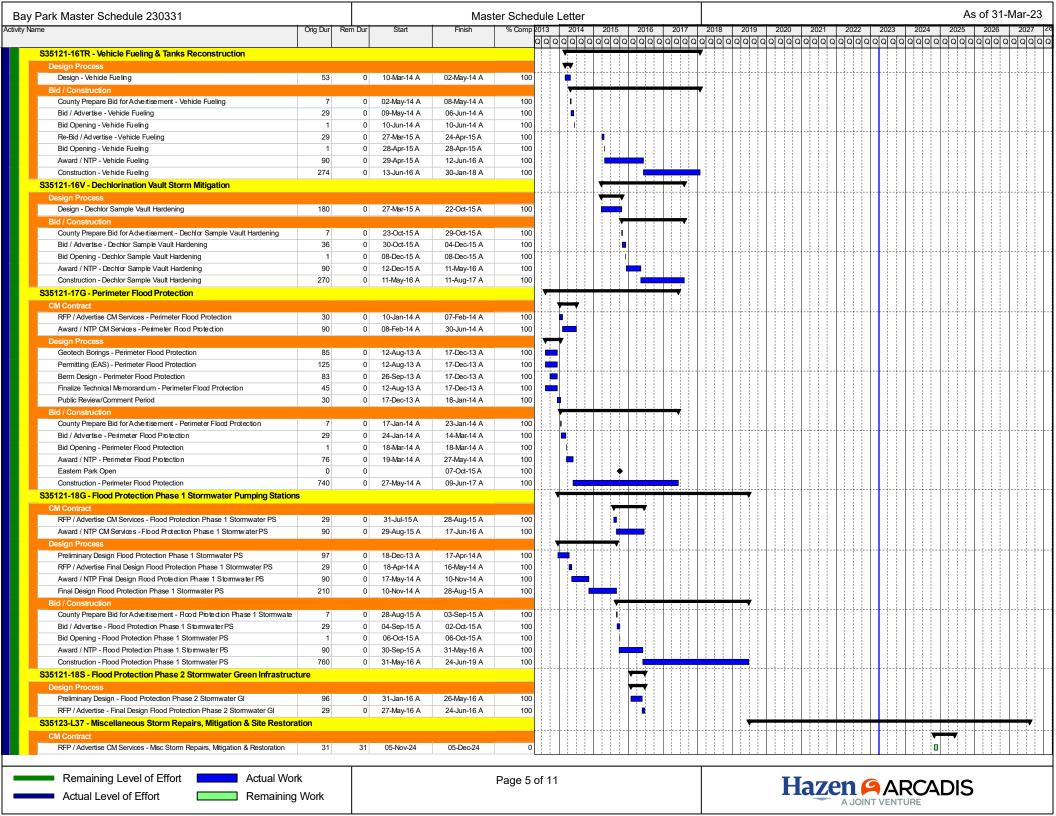
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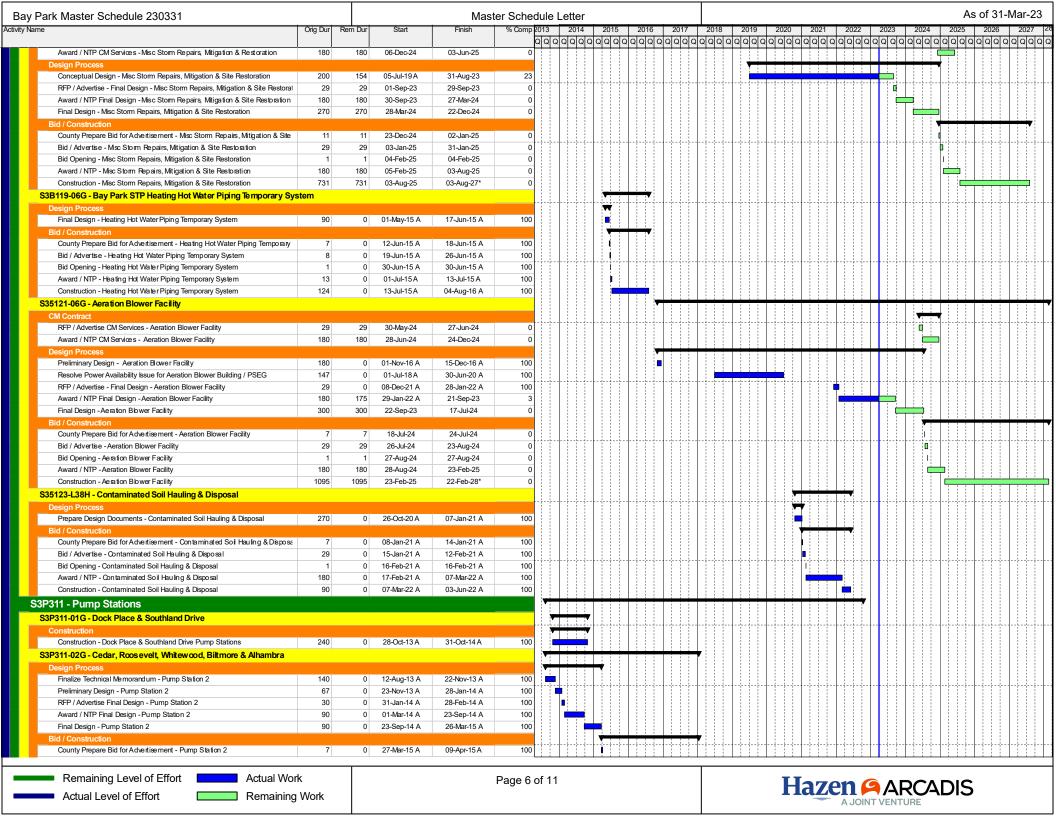


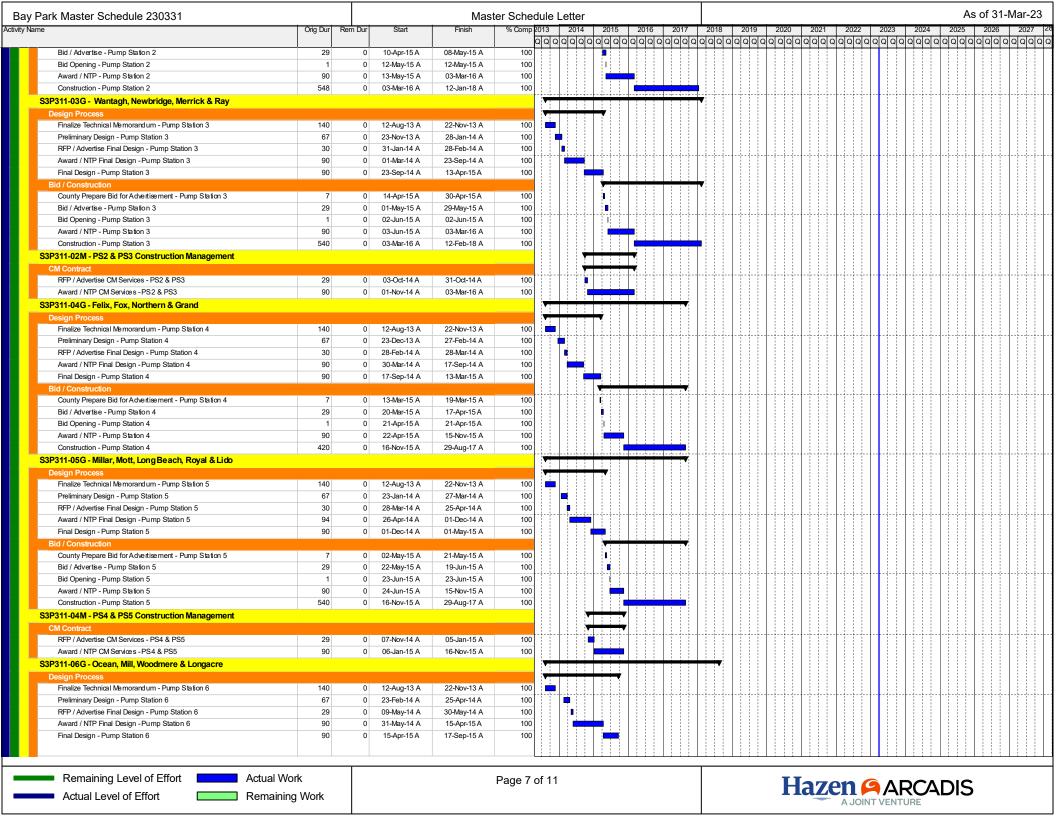


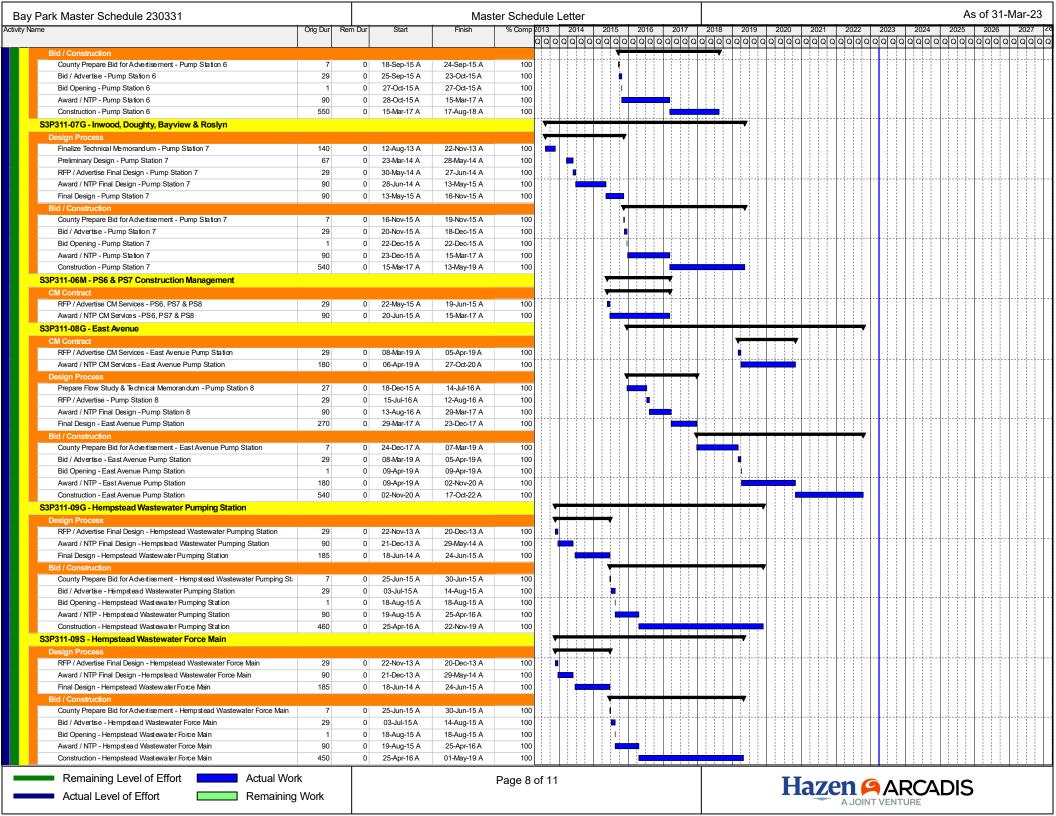


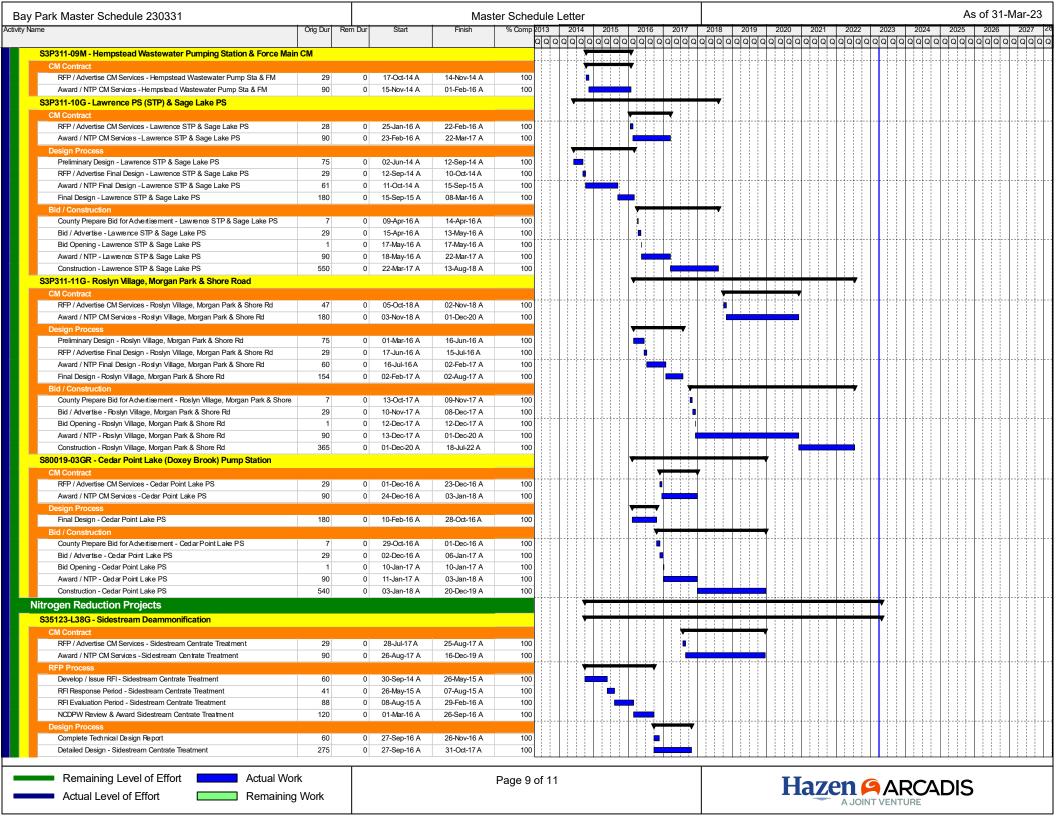


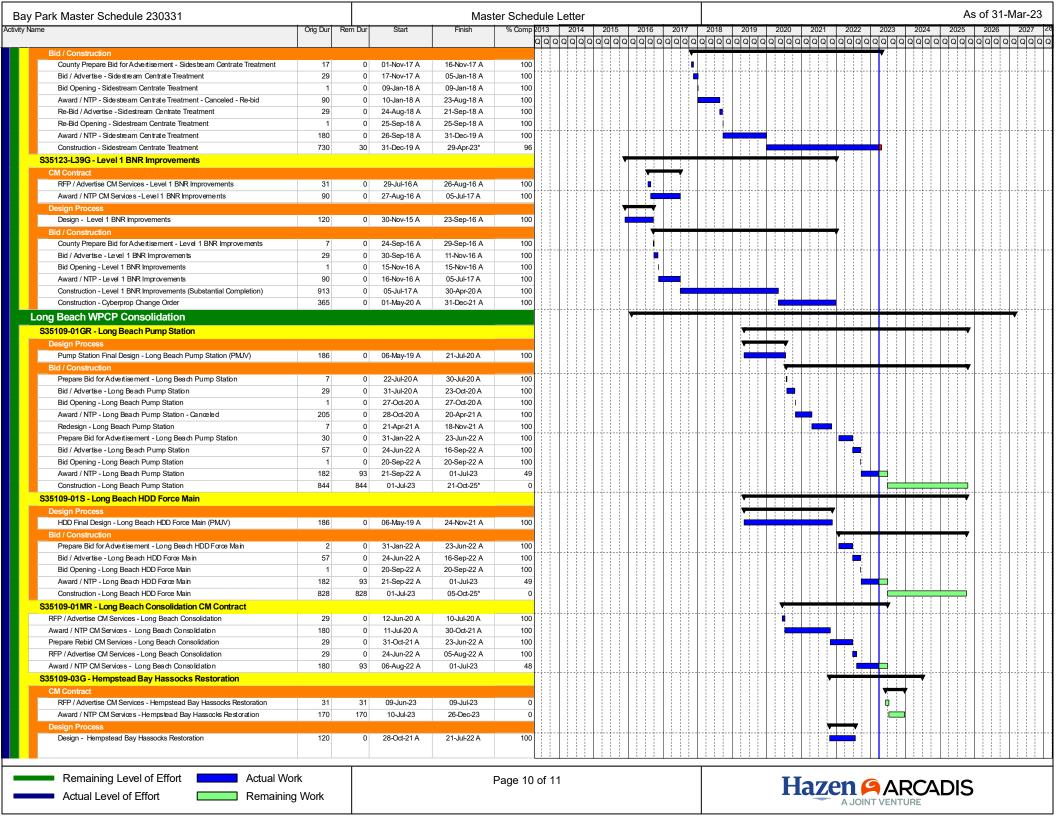


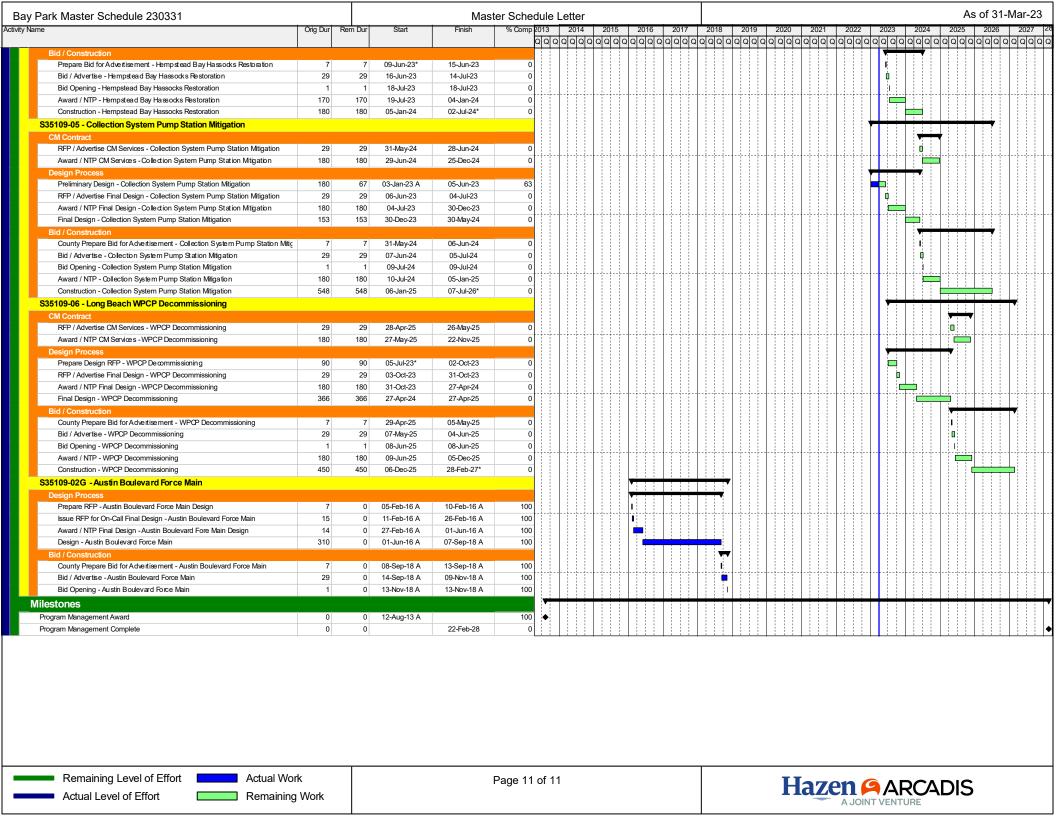












XIII.0

Project Glossary

Agreement Project Name	County Project Name	County Project Number
Barnes Avenue – Baldwin	Village of Hempstead Wastewater Pump Station	S3P311-09G
	Village of Hempstead Force Main	S3P311-09S
Raw sewage pumping facility	Raw Sewage Pumping Facility Improvements	S35121-03G
Sludge dewatering facilities	Sludge Dewatering Facilities Improvements	S35121-09G
Effluent Screening and disinfection	Effluent Screening and Disinfection Facility Improvements	S35121-11G
Effluent tide pumping facilities	Effluent Pumping Facility Improvements	S35121-12G
Electrical Distribution Phase E1- E3	Phase E3 Main Substation and Electrical Distribution	S35121-14F
Secondary Flood Protection	Secondary Flood Protection and Hardening of Critical Facilities	S35121-16G
Stormwater Pump Stations	Flood Protection Phase I – Stormwater Pumping Stations	S35121-18G
Upgrade to 3 Generator Operation	Engine Generator Facility Auxiliary Improvements	S35121-16A
Hot water piping system	Permanent HW/CW Piping System	S35121-16P
Cedar Dr, Roosevelt et al PS	Cedar Drive, Roosevelt, Whitewood, Biltmore and Alhambra Pump Station Repairs	S3P311-02G
Wantagh, Newbridge et al PS	Wantagh, Newbridge Road, Merrick Road and Ray Street Pump Station Repairs	S3P311-03G
Ocean Ave, Mill Rd et al PS	Ocean Avenue, Mill Road, Woodmere Boulevard and Longacre Pump Station Repairs	S3P311-06G
Inwood, Doughty et al PS	Inwood, Bayview Avenue and Doughty Boulevard Pump Station Repairs	S3P311-07G
Lawrence & Sage Lake PS	Sage Lake and Lawrence Pump Stations Mitigation and Repair	S3P311-10G
East Avenue Ejector Station	East Avenue Pump Station Repairs	S3P311-08G
Level 1 BNR	Level 1 BNR Improvements	S35123-L39G
Sidestream Deammonification	Sidestream Centrate Treatment S35123-L38G	

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I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Vincent Falkowski, PE, PMP, CCM	Deputy Commissioner
Permittee (Per CRF 122.22)	Title
Vincent Falkoush.	4/28/2023
Signature	Date Signed

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