

April 25, 2022

Director, Bureau of Water Compliance  
Attention: Edward Hampston  
New York State Department of Environmental Conservation  
625 Broadway, 4<sup>th</sup> Floor  
Albany, NY 12233-35062

Agreement DEC Index No: CO 1-20170626-244

South Shore Water Reclamation Facility  
**2022 Q1 Quarterly Report**

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Dear Mr. Hampston:

We are submitting herewith our Quarterly Report for the period of January 1, 2022 through March 31, 2022.

Very truly yours,



Vincent Falkowski, P.E.  
Deputy Commissioner for Environmental Programs

<b>c:</b>	<b>NCDPW</b> <i>Kenneth Arnold</i> <i>Jane Houdek</i> <i>Chris Vella</i>	<b>Hazen and Sawyer</b> <i>Mark Hanson</i> <i>Paul Saurer</i> <i>Eric Mills</i> <i>Tom Zakrzewski</i>	<b>ARCADIS</b> <i>Peter Glus</i> <i>Greg Bazydola</i> <i>Maryanne Dioquino</i> <i>Khanhtran Do</i>	<b>DEC</b> <i>Katie French</i> <i>Paul Harding</i> <i>Brian Lee</i> <i>Josh Lin</i> <i>Ryan Waldman</i> <i>Andrew Fera</i> <i>Andrew Fleck</i>
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# DEC Agreement Q1 2022 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, 2022 through March 31, 2022.

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

**I.0**

## **Executive Summary**

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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, 2022 through March 31, 2022 (“Reporting Quarter”).

## II.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 Agreement modification.

**Table 1 – Modification Requests and Force Majeure Notifications**

<b>Milestone</b>	<b>Agreement Date</b>	<b>Mod request letter date</b>	<b>Revised date requested</b>	<b>DEC Response Date</b>	<b>Modified Milestone Date<sup>1</sup></b>
General Covid-19 FM	N/A	3/19/2020 <sup>2</sup>	N/A	6/24/2021	N/A
Bay Park Microtunnel Shafts Complete	5/1/2022	4/1/2022	7/1/2022	-	-
Bay Park Microtunnel Design Complete	5/1/2022	4/1/2022	1/3/2022	-	-
Cedar Creek Microtunnel Shafts Complete	6/1/2022	4/1/2022	3/9/2022	-	-

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1. Bold denotes current date, italic superseded
  2. Force Majeure

**III.0**

## **Design Milestone Status**

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

**Table 2 – Design Completion Milestones**

<b>Milestone</b>	<b>Agreement Date</b>	<b>Actual/Forecast</b>
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.

## 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**

<b>Milestone</b>	<b>Agreement Date</b>	<b>Actual/ Forecast</b>
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**

<b>Milestone</b>	<b>Agreement Date</b>	<b>Actual/ Forecast</b>	<b>% Complete</b>
1 Barnes Avenue – Baldwin	12/31/2019	10/4/2019 A	100%
2 Raw Sewage Pumping Facility	2/15/2024	12/22/2023	17%
3 Sludge Dewatering Facilities	12/15/2018	5/21/2018 A	100%
4 Effluent Screening and Disinfection	8/22/2023	12/29/2022	50%
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	5/2/2022	90%
16 Level 1 BNR	5/5/2020	4/30/2020 A	100%
17 Sidestream Deammonification	10/3/2022	5/25/2022	97%

\* The table in Section X.0 of this report indicates certification of completed activities.

## **Project Notes:**

### **1. Barnes Avenue – Baldwin**

This project has been completed and milestone certification accepted.

### **2. Raw Sewage Pumping Facility**

#### Progress This Quarter:

- Installed grounding grid with stub-ups between second story reinforcement bar mats.
- Installed rebar, CMU dowels, and concrete for second story floor slab (+29.67).
- Installed rebar, CMU dowels, stairs, and concrete for west corridor floor slab (+25.08).
- Installed structural steel columns along south wall of electrical room (N.C. Line).
- Installed concrete equipment curbs on top of new floor slab.
- Installed formwork, reinforcement bar, stirrups, and concrete for column encasements (N.C. Line).
- Installed 12” structural CMU exterior wall up to roof slab for building and west corridor (+41.50).
- Continued electrical conduit rough-in for the new second story power feed.
- Started pump room lighting conduit installation.
- Started shoring installation for working deck of roof slab.
- Started stripping floor slab formwork in interstitial space.
- Demolished pump room exterior wall for new stairway egress door.
- Started installation of structural steel beams in pump room for catwalk.
- Continued submission of RFI’s, submittals, and shop drawings subcontractors/vendors for approval.

#### Expected Progress Next Quarter:

- Install shoring and working platform for electrical building roof (+41.50).
- Install all roof beam encasement reinforcement bar.
- Install structural steel roof beams for electrical building and west corridor roof.
- Install reinforcement bar for roof slab mat (+41.50)
- Perform bolting and welding inspection for electrical building second story structural steel.
- Continue steel installation for pump room catwalk and compressor platform.
- Continue electrical conduit rough-in for the new second story power feed.
- Continue submission of RFI’s, Submittals, Shop Drawings and Subcontractor/Vendor approvals

*Note: Current schedule for Raw Sewage Pumps continues to slip 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. Further information on this delay as a potential Force Majure will be presented to DEC in the event that recovery of the project schedule is not achievable.*

### **3. Sludge Dewatering Facilities**

This project has been completed and milestone certification accepted.

### **4. Effluent Screening and Disinfection**

#### **Progress This Quarter:**

- Inspected Screening Channel No. 2. No repairs required.
- Completed the demolition of MCC-R3.
- Commenced the installation of Effluent Screen No. 3.
- Continued the installation of effluent spray water piping in the Screening Room.
- Continued preparation and submission of administrative and technical.

#### **Expected Progress Next Quarter**

- Start patching Screening Channel No. 3 in accordance with the recommendation of the PE inspection.
- Continue the installation of Effluent Screen No. 3.
- Start the installation of Spray Water Pump No. 3.
- Commence start-up & testing of Screen No. 3
- Start the installation of Effluent Screen No. 2.
- Continue the installation of effluent spray water piping in the Screening Room.
- Remove the 10-inch temporary blind flange and reconnect effluent spray water piping system.
- Continue preparation and submission of administrative and technical submittals.

*Note: Project has experienced delays in the delivery of key equipment (such as the new screening equipment) related to COVID and supply chain issues. Through rephasing of the construction sequence the project schedule has been able to maintain the current Consent Agreement completion milestone date. In the event the project is further delayed due to this issue a Force Majeure notification will be presented to the DEC.*

### **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**

#### **Progress This Quarter:**

- Substantial Completion Granted on January 28, 2022.
- Construction complete milestone certification submitted 2/22/22 and accepted by DEC 4/22/22.
- Continued submission of as-built drawings & O&M Manuals.
- Continued work on punch list items.

Expected Progress Next Quarter:

- Continue working on punch list.
- Install additional aluminum handrails in Primary Pump Stations Nos. 2 and 3.
- Continue preparation of as-built drawings and O&M manuals.

**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.

**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.

**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:

- Grouted Main Sewage Pumps.
- Installed Louvers.
- Continued installing pipe supports.
- Continued installing light fixtures.
- Continued installing cable for control panels.
- Started installing leak detection system for the fuel tanks.
- Installed sluice gate.
- Installed gutter, fascia, and soffit.
- Started installation of fire alarm.
- Continued fuel oil piping.
- Installed hydraulic power pack.
- Installed cable tray for MSP and sump pump cables.

- Installed spill boxes.

Expected Progress Next Quarter:

- Install fans.
- Install meter and utility change over (PSEG).
- Continue cable to control panels.
- Install SS hydraulic lines for the grinder.
- Install piping for the generator.
- Install motorized hoist.
- Continue installing heaters.
- Paint ceiling wet well and repair the one peeling spot in dry well.
- Commence start-up and testing of various systems.

**16. Level 1 BNR**

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

**17. Sidestream Deammonification**

Progress This Quarter:

- Substantial Completion granted on December 22, 2021.
- Continued submission of O&Ms, As-builts, Closeout submittals, and technical submittals.
- Continued FRP Cover installation and repair on the DA Tank and EQ Tanks.
- Started FRP Cover leakage testing.
- Continued I&C equipment and Control Panel operational testing.
- Continued Check-out/operation of WWW and HVAC equipment.
- Continued operation and ramp-up of the Sidestream system.

Expected Progress Next Quarter:

- Continue submission of O&Ms, As-builts, Closeout submittals, and technical submittals.
- Continue site lighting work.
- Continue HVAC punch list work.
- Continue FRP Cover installation/repairs on the DA Tank and EQ Tanks. Continue cover system testing.
- Continue I&C equipment and Control Panel operational testing/OAD Testing.
- Continue Check-out/troubleshooting of WWW and HVAC equipment.
- Start 10-day operational test of the North Tanks Sidestream System.
- Continue monitoring, ramp-up, and maintaining operation of the Sidestream Centrate treatment process.
- Continue general punch list and work-to-complete items.

V.0

## Inter Municipal Agreement

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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 are currently working together on the first Contract Administration Memorandum (CAM) that will detail the roles and responsibilities of the two parties with respect to project funding and financing. It is anticipated to be completed in the second quarter of 2022.

## 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**

Description of Work	Agreement Date	Projected/Actual*
Submit an approvable BNR Operation and Maintenance	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 milestones in Table 5 were revised in this reporting quarter according to the modified Agreement.

The BNR O&M Plan was submitted to DEC on the January 8, 2020 milestone. Comments were received from DEC and upon resolution the plan was accepted April 13, 2020. The start-up period was initiated on June 1, 2020 as per the schedule and has continued through the quarter. The startup period concluded in December 2020 and the performance period began January 1, 2021.

Performance reports have been submitted to DEC showing significant nitrogen removal, continuing despite the cold weather necessitating the transition to winter mode operations with increased aeration.

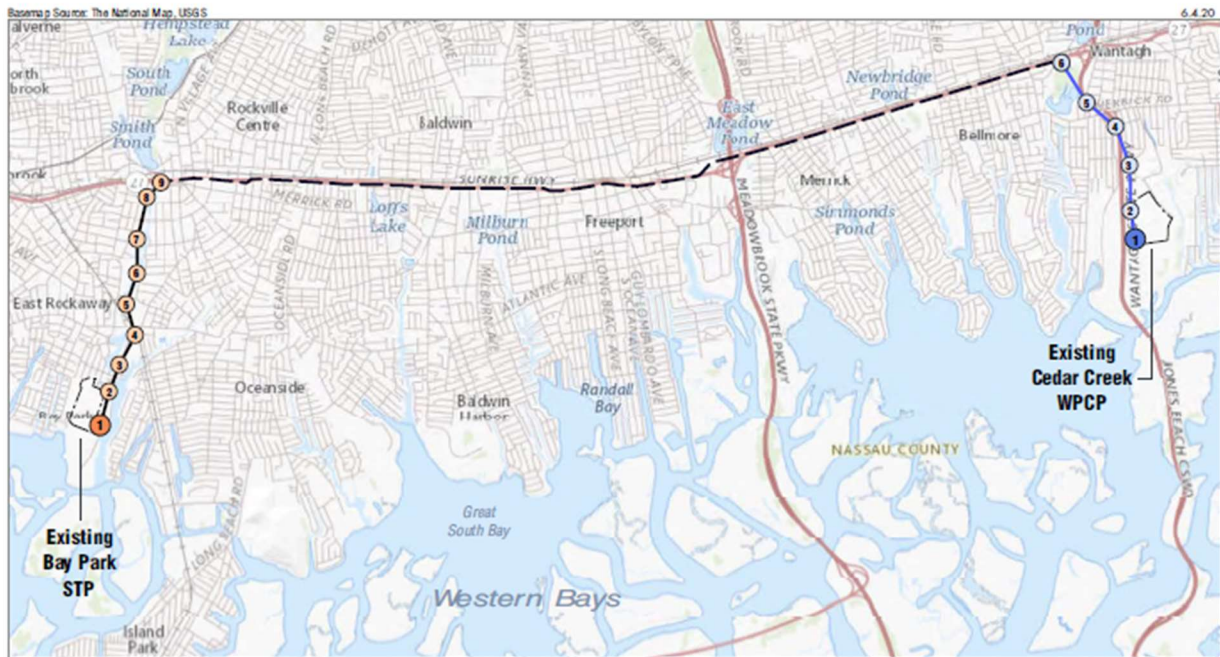
The performance period ended at the end of 2021 and the milestone certification has been submitted. The data was compiled and submitted along with a summary report to DEC on April 1, 2022.

## 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 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.

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**

<b>Description of Work</b>	<b>Agreement Date</b>	<b><i>Projected / Actual</i></b>	<b>Milestone Submitted</b>	<b>Milestone Accepted</b>
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 milestones in a Baseline Schedule for Design-Build Project Completion, including Mechanical Completion, Substantial 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	<i>10/31/2021</i>		
Notice to Proceed to Construction	2/26/2021	4/4/2021	3/9/2021	3/9/2021
Construction Start Early Works	6/25/2021	<i>6/25/2021</i>		
Commence Diversion of Wastewater from Bay Park to Cedar Creek	10/25/2024	<i>10/25/2024</i>		

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.

**Table 7 – Conveyance Project Milestones**

<b>Description of Work</b>	<b>No.</b>	<b>Agreement Date</b>	<b>Projected / Actual</b>	<b>Milestone Submitted</b>	<b>Milestone Accepted</b>
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	5/1/2022	1/3/2023		
BPM Design Complete	2.4	5/1/2022	7/1/2022		
BPM Construction End	2.5	12/30/2023	12/30/2023		
CCM Construction Start	3.1	12/1/2022	12/1/2022		
CCM Design Start	3.2	7/1/2021	6/29/2021	6/29/2021	7/2/2021
CCM Shafts Complete	3.3	6/1/2022	3/9/2023		
CCM Design Complete	3.4	9/1/2022	9/1/2022		
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		
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		
SHA Rehabilitation Construction End	5.4	12/30/2023	12/30/2023		
CCEPS/RS Construction Start	6.1	8/1/2022	8/1/2022		
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		
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

**Progress This Quarter:**

During 2022 Quarter No. 1 there was continued progress to advance the overall project objectives, which included the finalization of Work Plans, engineering planning, and data collection/investigation (geotechnical and topographic surveys) in an effort to advance the design development and permitting of design packages. A total of twenty-two (22) design packages at various levels of design for Bay Park Pump Station, Bay Park Microtunnel, Sunrise Highway Sliplining, Cedar Creek Microtunnel, and Cedar Creek Outfall infrastructure/facilities were received. Six (6) design packages were formally approved as RFCD documents.

Pertaining to construction activity, the Design-Builder has advanced and excavated the Wet Well shaft and started installation of Minipiles; completed Shaft BP-2 Microtunneling equipment installation; completed Shaft BP-3 excavation and Jet Grouting; initiated installation of CCFA secant piles at BP-4; completed CSM piles installation at BP-5, completed Post Grout verification at BP-8 and performed site preparation and erosion control at BP-9. In preparation for Sunrise Highway Aqueduct Sliplining work, the Design-Builder has initiated Sliplining from Pit P to Pit O; initiated excavation of Pit Q; completed utility relocation at Pit C; set up MPT and installed SOE at Pits R and S and installed Vibrations and Geotechnical Instrumentation at Pit R. Along the Cedar Creek Microtunnel alignment, excavation has been initiated at CC-1, CC-2 and CC-3; installation of CSM piles completed at CC-4; mobilized and initiated erosion control at CC-5; initiated site preparation at CC-6 and installed Vibration and Geotechnical Instrumentation at CC-1, CC-4, CC-5 and CC-6. As construction work progresses, construction submittals continue to be received and reviewed. Project mobilization submittals are undergoing revision by the Design-Builder; one (1) out of twelve (12) mobilization submittals require re-submission. The Noise and Vibration Monitoring Plan for Bay Park and Cedar Creek force main alignment was resubmitted and approved, while the Noise and Vibration Monitoring Plan for Sunrise Highway force main is still undergoing review and resubmission processes.

The Project's administrative goals in the form of reporting, meetings, document control, schedule management, quality assurance, and oversight activities continued. Construction activities such as shaft excavation and build-out, secant pile and CSM panel installation, jet grouting operations, utility relocations, SWPPP implementation, and other civil preparatory work were recorded relevant to RFCDs. Summarized below are particulars on design, submittals, and construction progress by reach/location over the period.

**Bay Park Effluent Diversion Pump Station:**

- Received and performed detailed quality and compliance reviews for numerous packages at varying levels of design, including: DP-07 - Bay Park Near Surface Structures; BPEDPS Seismic Site Class Memo. The one (1) RFCD document received and reviewed this quarter was DP-07.
- Reviewed and processed numerous construction submittals/work plans for various aspects of the Bay Park Pump Station relative to concrete mix, vertical turbine pumps, waterproofing materials and shop drawings, and Minipiles.

- Wet Well Shaft (BP-1) - Excavated and dewatered shaft, performed Post Grout verification, initiated installation of Minipiles, initiated waterproofing. BPEDPS Diversion Structure - Jet Grout Test Primary and Secondary Columns.

#### Bay Park Microtunnel:

- Received and performed detailed quality and compliance reviews for numerous packages at varying levels of design including: Microtunnel and Slipline Pipe Durability Study; DP-16 - Bay Park Microtunnel Drives 3-9 & Shafts 2-9 Permanent Works; MT Drives 3-9 Seismic Site Class Memo. The one (1) RFCD document received and review this quarter was DP-16.
- Reviewed and processed numerous work plans and construction submittals, including but not limited to, SWPPPs and Disposal Facility Applications.
- Shaft BP-2 – Installed Microtunneling equipment (BP-2 to BP-1). Shaft BP-3 – Excavated shaft and initiated Jet Grouting. Shaft BP-4 – Initiated and continued installation of CCFA piles, finalized Jet Grouting. Shaft BP-5 – Installed CSM piles, mobilized Jet Grout test columns. Shaft BP-7 – Spoils management from CSM operation. Shaft BP-8 – Post Grout verification. Shaft BP-9 – Site preparation and erosion control.

#### Sunrise Highway Sliplining:

- Received and performed detailed quality and compliance reviews for numerous packages at varying levels of design, including: Microtunnel and Slipline Pipe Durability Study; Seismic Site Class Evaluation; DP-17 - Sunrise Highway Slipline and Work Pits O, P, Q; DP-20 – Sunrise Highway Slipline and Work Pits I, K, L, M; and DP-21 – Sunrise Highway Slipline and Work Pits FF, G, GG and H. The one (1) RFCD document received and review this quarter was DP-17.
- Reviewed and processed numerous work plans and construction submittals, including but not limited to, SWPPPs and Disposal Facility Applications, and Geotechnical Instrumentation and Monitoring Plan for Sunrise Highway Force Main.
- Initiated and continued Sliplining from Work Pit P to Work Pit O. Initiated and continued excavation of Work Pit Q. Utility relocation at Work Pit C. Set up MPT at Work Pit R and Work Pit S. Installed SOE at Work Pit R and Work Pit S. Install Vibrations and Geotechnical Instrumentation at Pit R.

#### Cedar Creek Microtunnel:

- Received and performed detailed quality and compliance reviews for numerous packages at varying levels of design, including: Microtunnel and Slipline Pipe Durability Study; DP-14 - Cedar Creek Microtunnel Drives 2-1, 2-3, 4-3, 4-5, and 5-6; DP-13 - Cedar Creek Shafts 1, 4, 5, and 6 Design; and MT Seismic Site Class Memo. The one (1) RFCD document received and reviewed was DP-13.
- Reviewed and processed numerous work plans and construction submittals, including but not limited to, SWPPPs and Disposal Facility Applications, Jet Grout Bottom Plug Layouts, and vertical turbine pumps.
- Initiated shaft excavation and dewatering at CC-1, completed secant patch work to prevent water inflow. CC-2 - Initiated shaft excavation and Jet Grouting, performed Post Grout verification, initiated set up for MTBM. CC-3 - Initiated excavation and

Jet Grouting, performed Post Grout verification. CC-4 - Finalized installation of CSM panels, initiated Jet Grouting. CC-5 - Mobilized and initiated erosion control. CC-6 - Site preparation, initiated sheeting. Installed Vibration and Geotechnical Instrumentation at CC-1, CC-4, CC-5 and CC-6.

**Cedar Creek Effluent Pump Station/Receiving Station:**

- Received and performed detailed quality and compliance reviews for numerous packages at varying levels of design, including DP-08A – Pump Early Works Design Narrative; DP-08B – CCRS Minipile Foundations; DP-09 - Cedar Creek Pump Station Upgrades; DP-09A - CCPS HVAC Modifications; DP-10 - Cedar Creek Receiving Station and Wet Tap; and DP-10A - Cedar Creek Existing 84” Outfall Air Valves and Vault Wet Tap. Received and reviewed four (4) RFCD documents including DP-08A, DP-09, DP-10 and DP-10A.

**Expected Progress Next Quarter:**

**Bay Park Effluent Diversion Pump Station:**

- Anticipate receipt of packages at varying levels of design, including: DP-07 - Bay Park Near Surface Structures (resubmission); DP-08 - Bay Park Pump Station Building; and DP-08B - Bay Park Minipile Foundations. Anticipate receipt of two (2) RFCD documents including DP-07 and DP-08B.
- At Wet Well Shaft (BP-1) - Finalize shaft excavation, pour inner liner to prepare surface for waterproofing. BPEDPS Diversion Structure - continue Jet Grout, excavate and brace structure.

**Bay Park Microtunnel:**

- Anticipate receipt of one (1) RFCD document including design DP-16 (resubmission).
- Construction Work Next Period (Q2 2022): Anticipate MTBM runs Shaft BP-2 to Shaft BP-1 and Shaft BP-2 to Shaft BP-4. Shaft BP-3 – Finalize Jet Grout and prepare for MTBM arrival. Shaft BP-4 – Excavate shaft. Shaft BP-5 – Excavate shaft. Shaft BP-7 – Soil mix panels and Jet Grout invert. Shaft BP-8 – Excavate shaft. Prepare for MTBM launch and begin MTBM drives.

**Sunrise Highway Sliplining:**

- Anticipate receipt of packages at varying levels of design, including: DPs-18/-19/-20/-21/-22 - Sunrise Highway Slipline and Pits A, B, C, D, E, F, FF, G, GG, H, I, K, L, M, N, R, S, T, U, V, and W; and DPs-23/-26/-27 - Sunrise Highway Slipline and Work Pits B, C, D, E, F, FF, G, GG, H, I, K, L, M, and N Utility Protection and Relocation, SOE and Temporary Works. Three (3) RFCD documents expected to receive are DP-18, DP-19 and DP-26.
- Complete Sliplining from Work Pit P to Work Pit O, and from Work Pit P to Work Pit Q; initiate excavation at Work Pit R and prepare for Sliplining.

Cedar Creek Microtunnel:

- Anticipate receipt of one (1) RFCD package, including design work for DP-14 - Cedar Creek Microtunnel Drives 2-1, 2-3, 4-3, 4-5, 5-6 and Cedar Creek Shafts 1, 2, 3, 4, 5, and 6 Permanent Works.
- Finalize excavation and Jet Grouting at CC-1, CC-2, and CC-3, finalize Jet Grouting at CC-4, excavate and Jet Grout CC-5 and CC-6, finalize set up of MTBM at CC-2 and begin MTBM drives.

Cedar Creek Effluent Pump Station/Receiving Station:

- Anticipate receipt of two (2) revised RFCD packages, including: DP-09 - Cedar Creek Pump Station Upgrades; and DP-10 - Cedar Creek Receiving Station and Wet Tap. Other submittals include DP-09B - Slide Gate & Tide Gate Modifications, DP-09A – CCRS HVAC Modifications, Cleanout Chamber Preliminary Study, and Discharge Header Report.
- CC Receiving Station – begin HVAC Modification and Hazardous Materials Mitigation efforts, begin modifications to existing pump stations.

## 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	6/01/2022  Upon DEC Approval
2. CMOM Program – Submit Operating Plan for Bay Park Convey- ance System	60% Design + 6 Months
3. Preliminary Engineering Report To be included in the 60% Design Report	
4. Modified SPDES Application Request	10/1/2024
5. Inflow and Infiltration (I/I) Study Work Plan a. If required after item 2 obligations are complete, submit I/I study work plans for Bay Park STP and Cedar Creek WPCP b. Submit Report of I/I study findings	60% Design + 6 Months  Within 9 months of work plan approval or per approved schedule

The County has issued notice to proceed to their on-call consultant who commenced work on the CMOM and I&I plans on January 9, 2022.

## IX.0

# Environmental Benefit Projects

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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 was submitted and comments returned this quarter. Resubmittal is currently under review with the DEC Region 1 permitting group and approval is anticipated in the next quarter.

## X.0

## Certification of Completed Activities

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

**Table 9 – Completed Activities**

Milestone	Date Completed	Certification Submitted	Certification 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	10/29/20	10/29/20	11/2/2020
Effluent Screening and Disinfection NTP	10/29/20	10/29/20	11/2/2020
Level 1 BNR – CC	4/30/20	5/5/20	10/30/2020
Effluent Pumping Facility – CC	5/5/20	6/10/20	10/30/2020
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	-
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

## XI.0

# Community Relations

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From January through March 2022, the State, County, and Design Builder continued in their efforts to disseminate and field community concerns via various community engagement initiatives.

On February 10 from 6 – 7:30pm, the State, County, and Design-Builder held a fourth general public information session (since the Project's Notice-to-Proceed) over 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 tree removal, as well as noise and vibration monitoring.

On March 9, the Project hosted a Nassau County Technical Rescue Advisory Committee meeting that was attended by fire departments that service areas along the Project's alignments. The meeting focused on confined space issues and emergency response needs. The meeting was held in-person at the Project's Community Information Center (CIC).

On March 14, the Project engaged with local Boy Scouts and their families in an interactive presentation to convey the mission and progress of the Project. The meeting was hosted in the CIC. The Project has experienced an increase in requests for educational tours at the South Shore Water Reclamation Facility, which the Project team has been connecting the County plant operators to local groups and schools.

On March 15, the Project owners published a press release to mark the beginning of sliplining, a key milestone for the Project. The press release and quotes from Nassau County legislators can be found at this link: <https://www.dec.ny.gov/press/124934.html>

The Project also hosted one MWDBE-SDVOB opportunity session per month during the quarter: on January 18, February 1, and March 15 via Microsoft Teams to share information regarding potential opportunities for certified businesses to partake in relevant contracts.

Meetings with local elected officials and first responders took place on January 25, February 22, and March 29, where government officials and fire marshals were debriefed 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. WBC answered questions regarding tree removal, and noise and vibration monitoring.

Stakeholder meetings which included chambers of commerce, local civic associations, and homeowners' associations also took place during Q1: on January 26, February 23, and March 30. During these meetings, local stakeholders were invited to listen in on the Project's updates and raise any concerns directly to the Project team.

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

A summary of the outreach activities is given in the table on the following page.

**2022 Q1 Outreach Summary:**

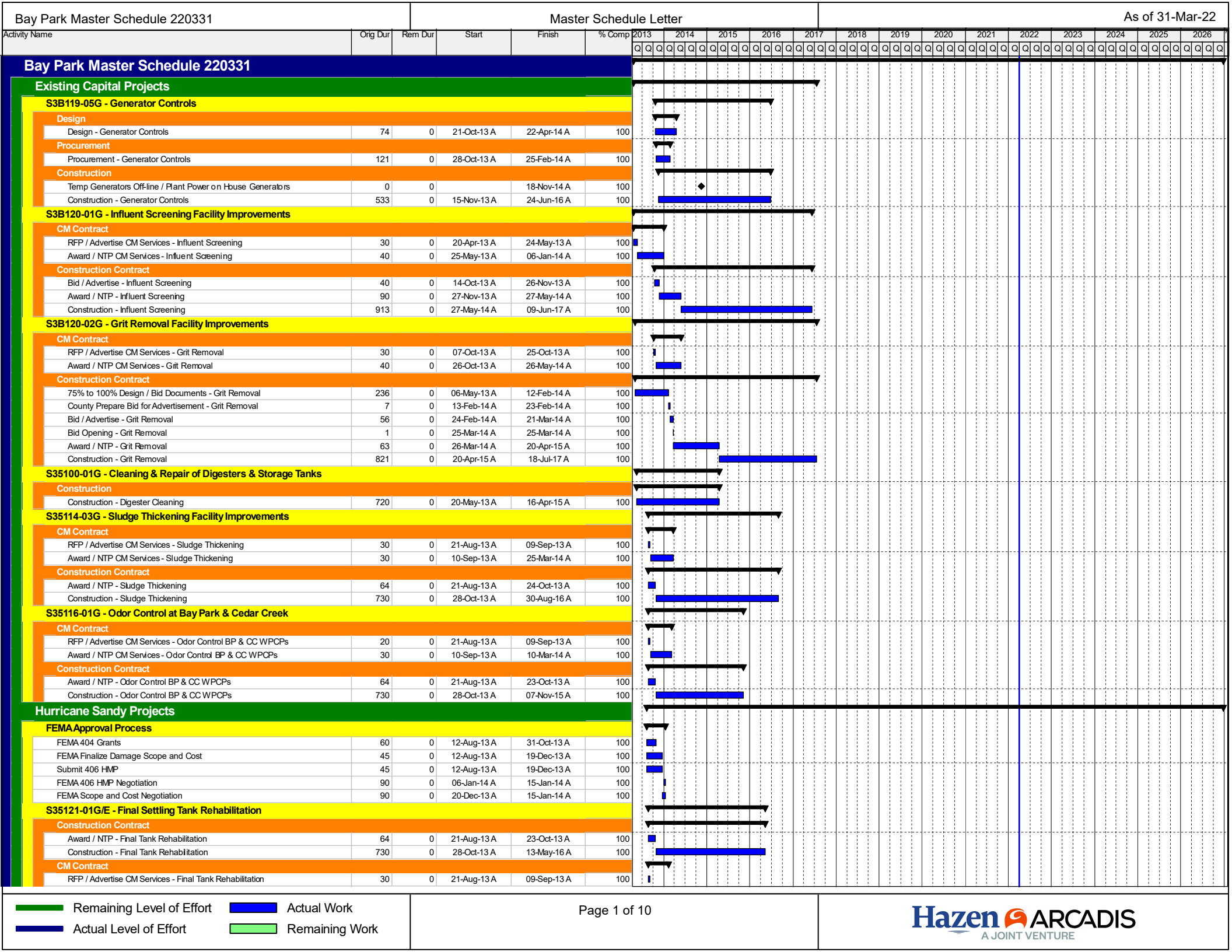
<b>Item/ Description</b>	<b>Dates</b>
Quarterly Public Information Session	February 10
Nassau County Technical Rescue Advisory Committee Meeting	March 9
Presentation to Local Boy Scout Troop	March 14
Sliplining and Project Milestones Press Release	March 15
Project MWDBE-SDVOB opportunity sessions	<ul style="list-style-type: none"> <li>• January 18</li> <li>• February 1</li> <li>• March 15</li> </ul>
Monthly Meeting with First Responders and Elected Officials	<ul style="list-style-type: none"> <li>• January 25</li> <li>• February 22</li> <li>• March 29</li> </ul>
Monthly Meeting with Bay Park Stakeholder, Chambers of Commerce, and Civics	<ul style="list-style-type: none"> <li>• January 26</li> <li>• February 23</li> <li>• March 30</li> </ul>

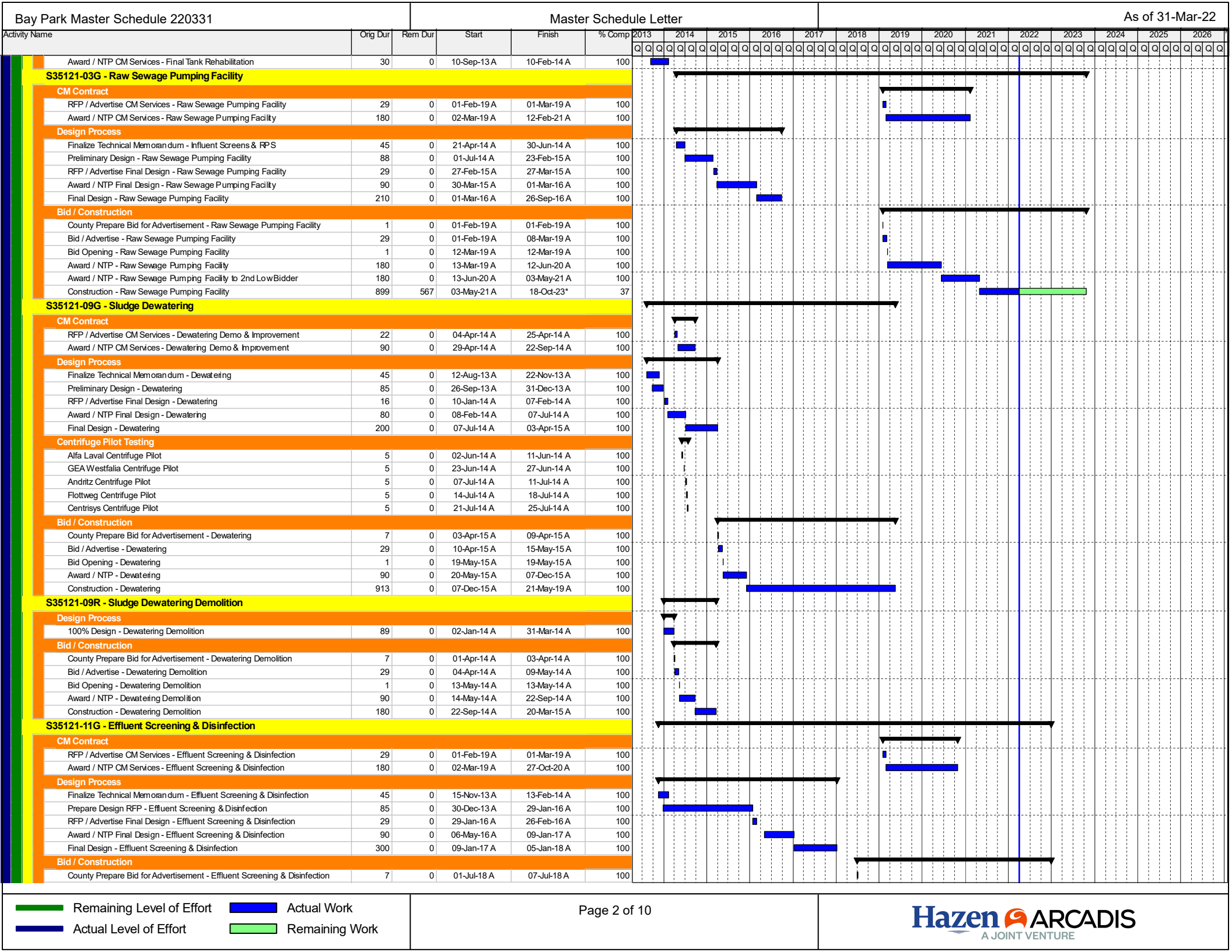
## **XII.0**

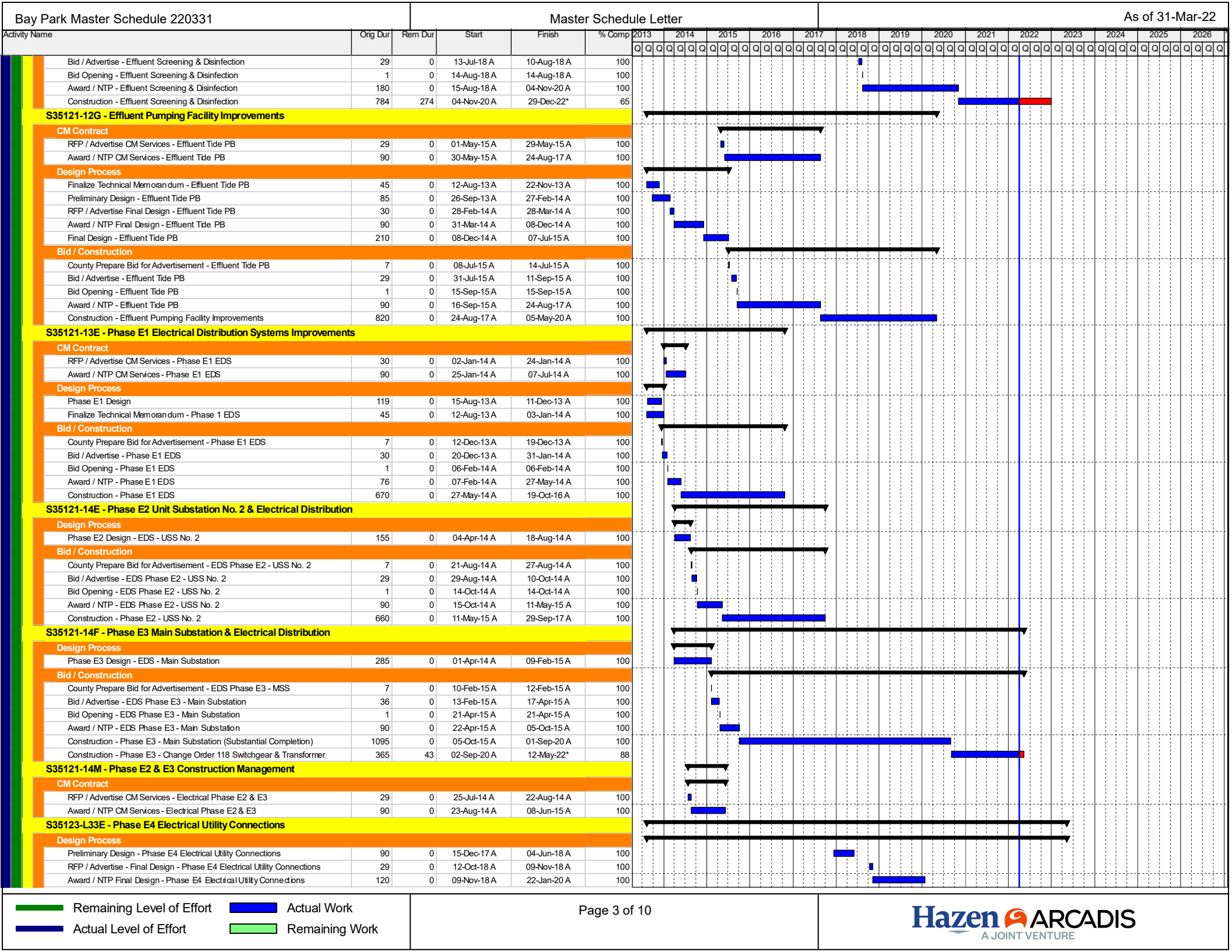
# **Attachments**

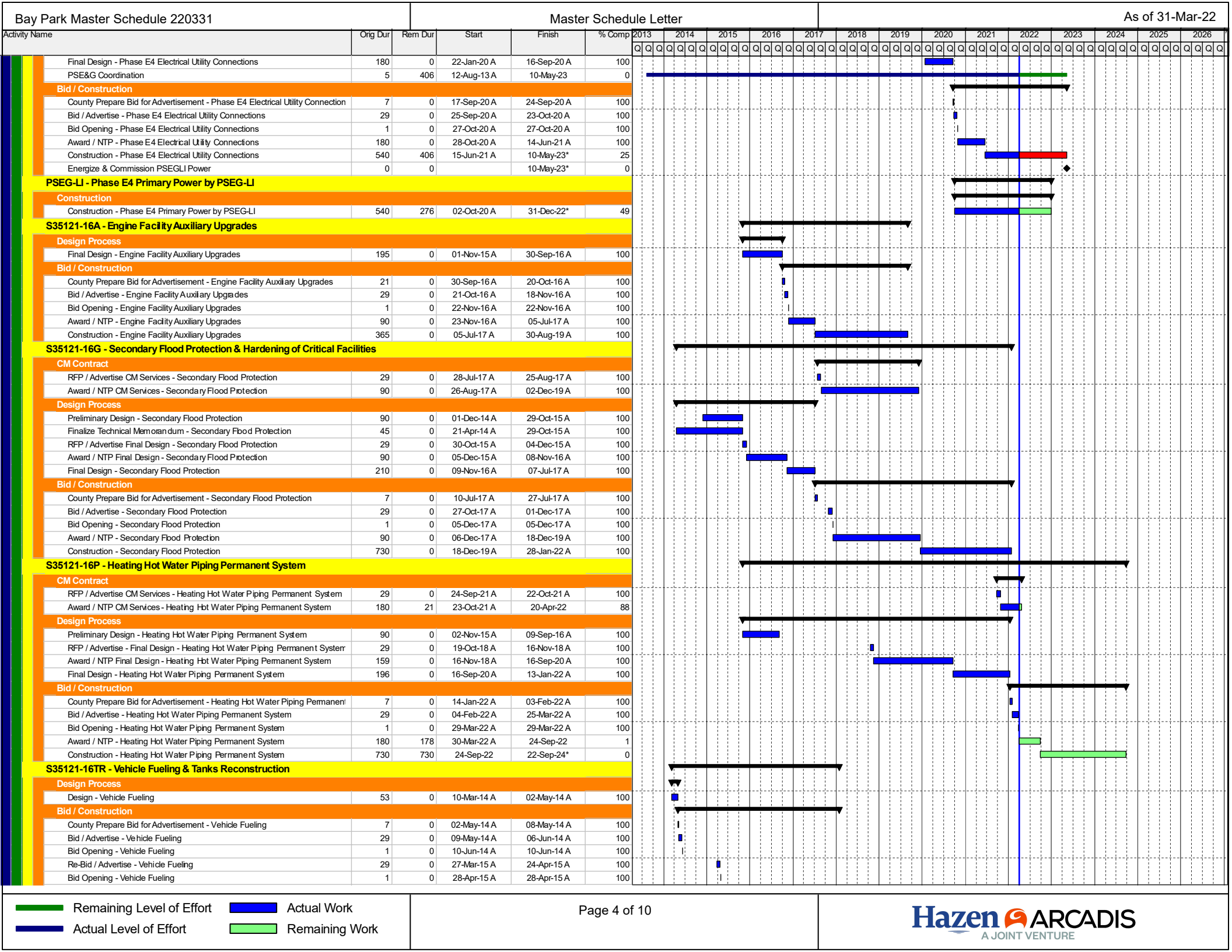
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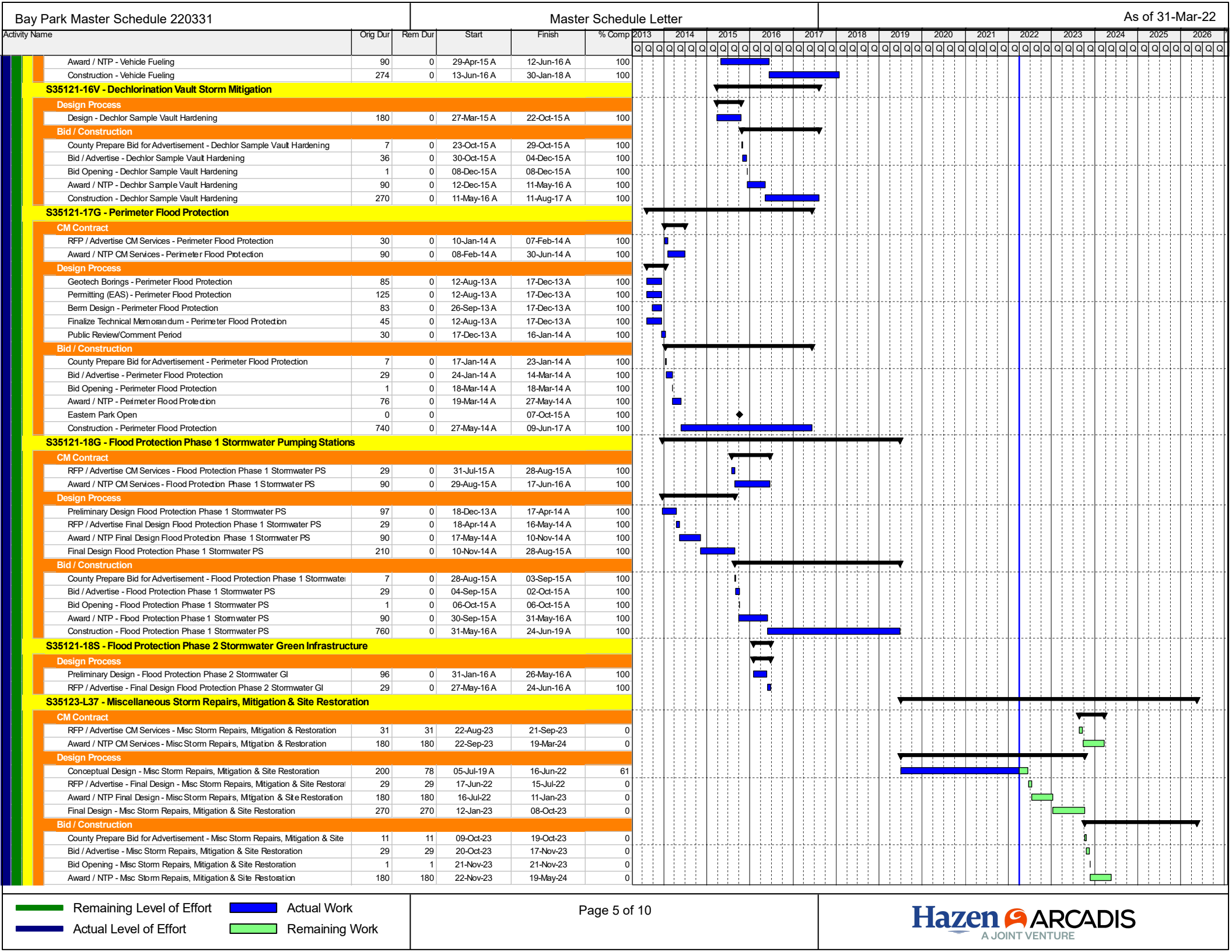
1. Program Master Schedule









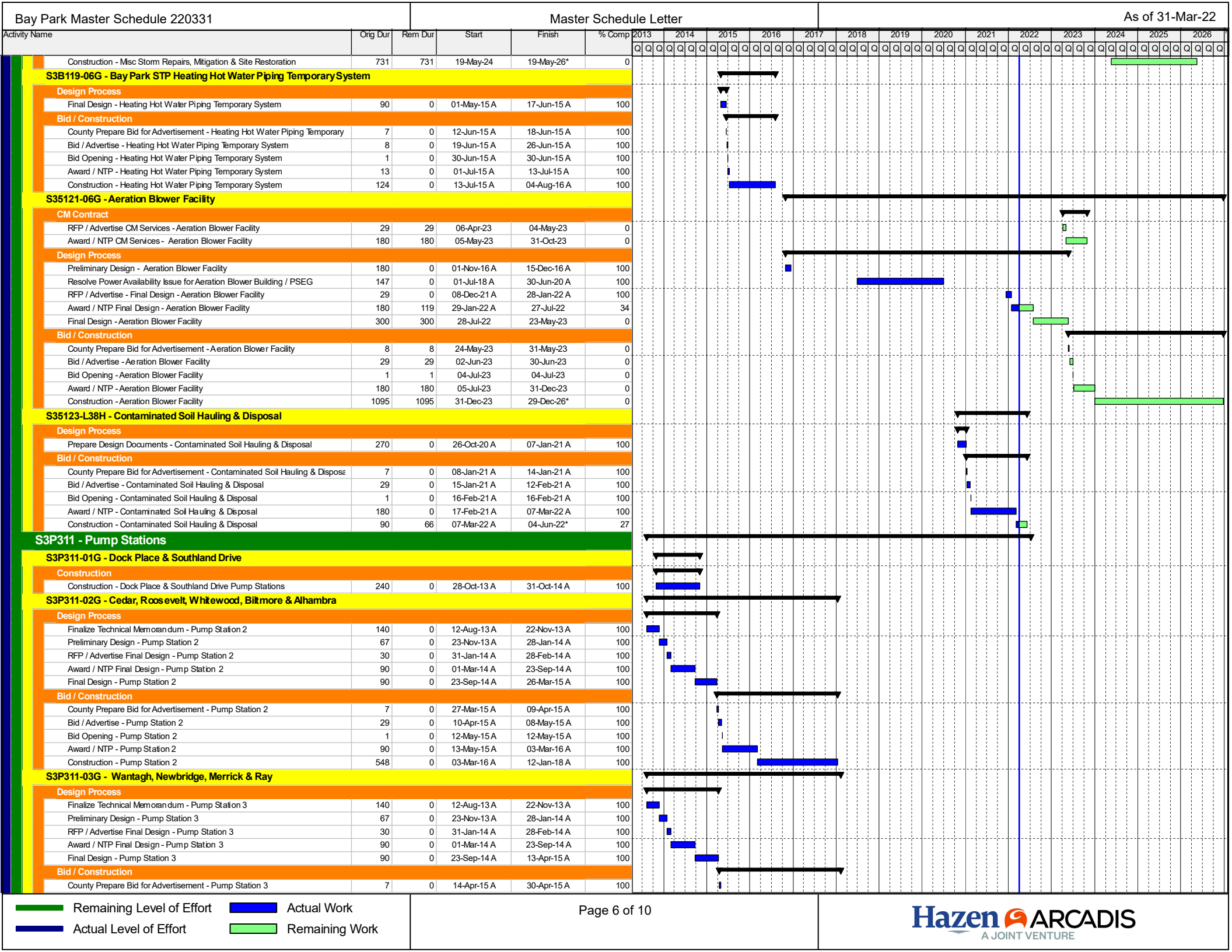


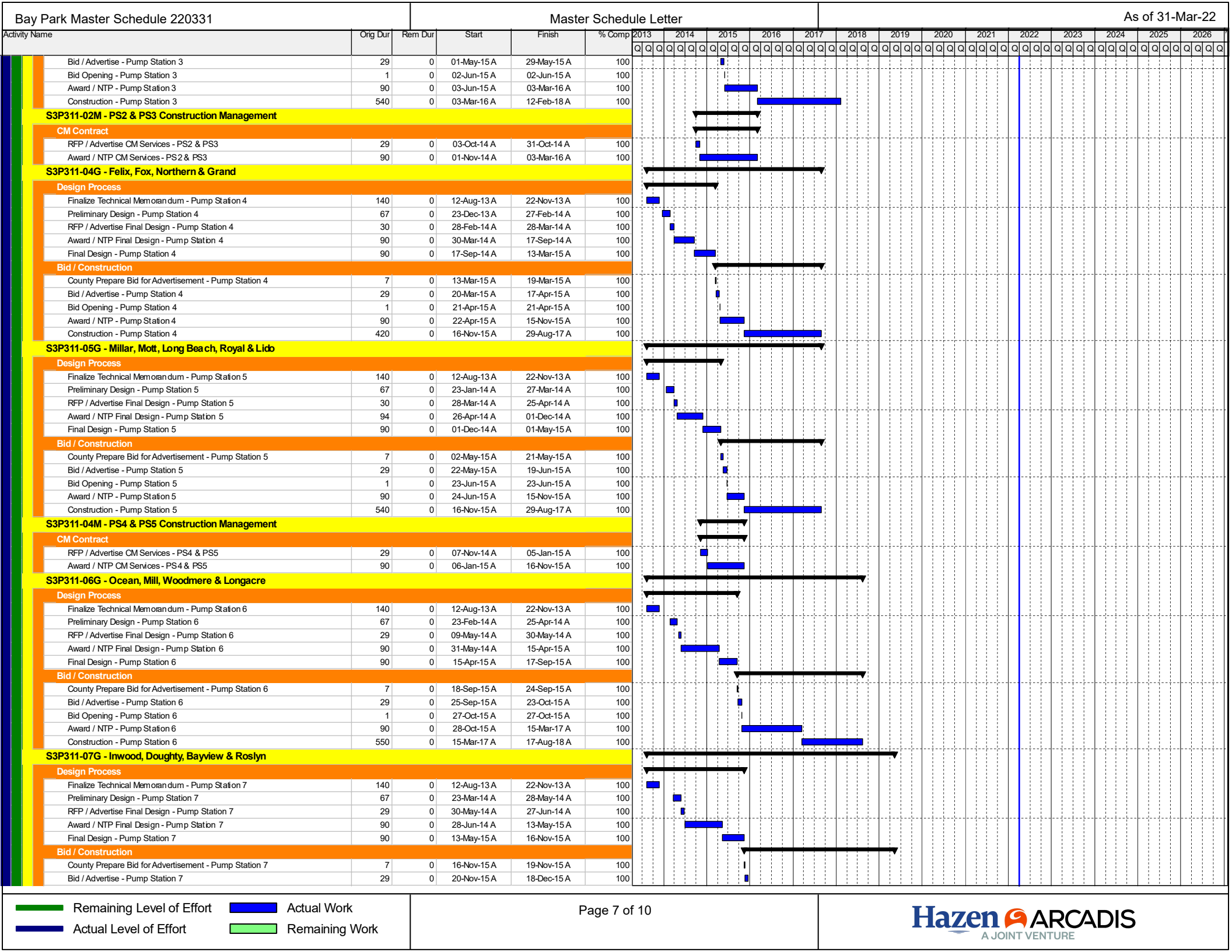
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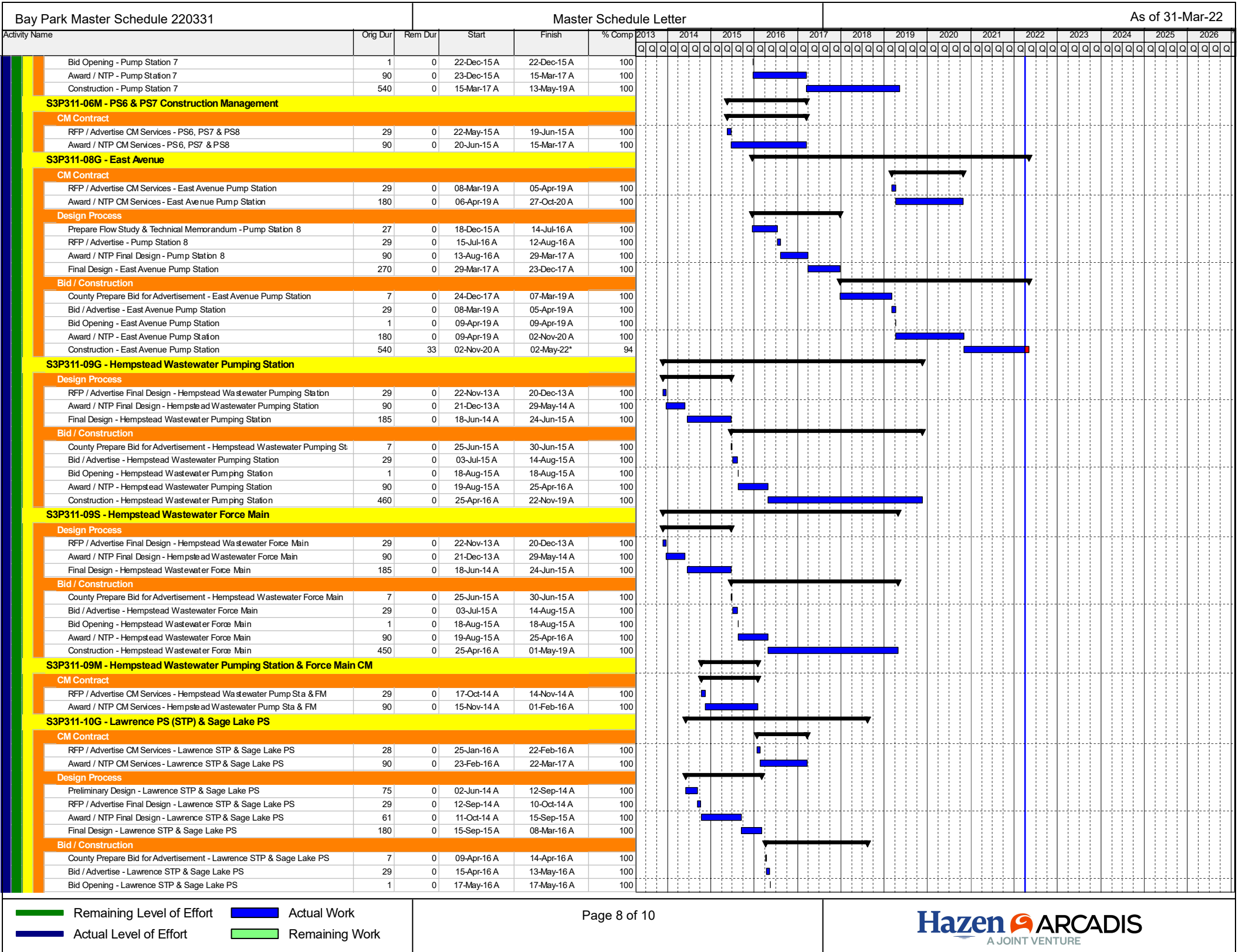
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A JOINT VENTURE





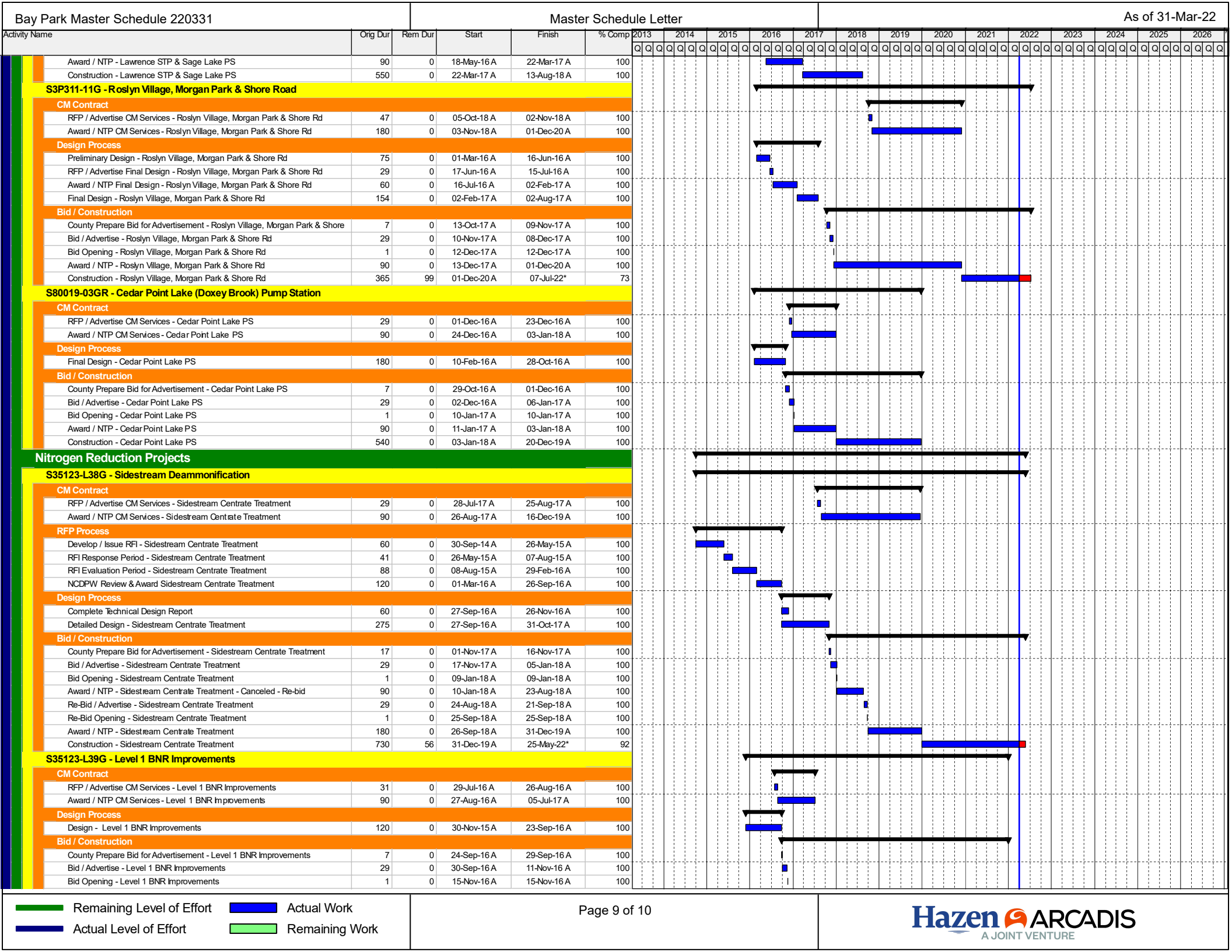


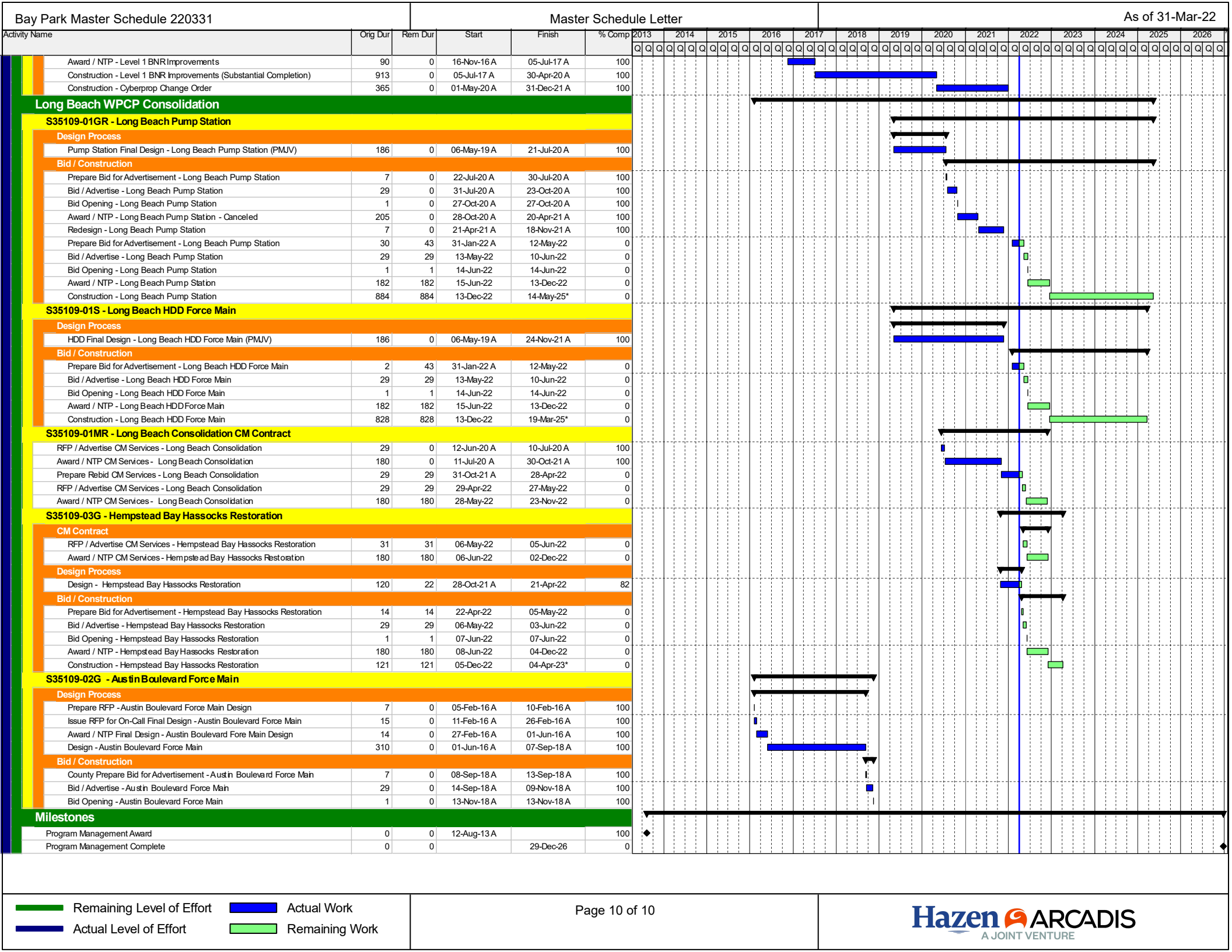
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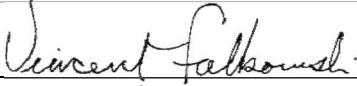


## XIII.0

## 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

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
		4/25/2022
Signature		Date Signed