

October 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 Q3 Quarterly Report**

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Dear Mr. Hampston:

We are submitting herewith our Quarterly Report for the period of July 1, 2022, through September 30, 2022.

Very truly yours,



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

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

# DEC Agreement Q3 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 July 1, 2022, through September 30, 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 July 1, 2022, through September 30, 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 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.

It is anticipated that this modification will be executed in Q4 of 2022.

**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                       | 1/3/2023                      | -                        | -  |
| Bay Park Microtunnel Design Complete    | 5/1/2022              | 4/1/2022                       | 7/1/2022                      | -                        | -  |
| Cedar Creek Microtunnel Shafts Complete | 6/1/2022              | 4/1/2022                       | 3/9/2023                      | -                        | -  |
| WW/Flow Reduction                       | Various               | N/A                            | Various                       | -                        | -  |
| Hassocks Restoration                    | TBD                   | N/A                            | TBD                           | -                        | -  |

- 
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             | 5/8/2024               | 37%               |
| 3 Sludge Dewatering Facilities        | 12/15/2018            | 5/21/2018 A            | 100%              |
| 4 Effluent Screening and Disinfection | 8/22/2023             | 2/9/2023               | 75%               |
| 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.

## **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 rough-in for power, controls, fire alarm, and lighting.
- Continued demolition of abandoned conduit in existing MCC and Pump Room.
- Continued installation of pump room lighting conduit and temporary SCADA control panel conduit.
- Finished conduit connections on the VFDs (RSP-1 - 5).
- Started conduit connections, torquing, and interconnecting on the unit substation (USS) equipment.
- Started installation of the lightning protection and underground grounding grid
- Finished JB-1 brick veneer replacement (P-023).
- Installed the outdoor air sensor in its new location under the west corridor soffit (P-008).
- Started installation of west corridor windows.
- Continued installation of northeast stair tower gratings.
- Complete electrical lighting rough-in, insulation, lath, and stucco underneath the west corridor.
- Demolished brick veneer for the northeast stair tower lateral anchors
- Finished JB-1 demolition and brick veneer replacement (P-023).
- Installed lateral anchors for northeast stair tower and reinstalled brick veneer in the openings.
- Continued submission of RFIs, submittals, and shop drawings subcontractors/vendors for approval.

#### Expected Progress Next Quarter:

- Finish relocation of fire standpipe to egress staircase (P-019).
- Finish relocation of fiber optic relocation (P-020).
- Start installation of HVAC piping upon equipment delivery.
- Set rooftop HVAC equipment on corresponding rails upon delivery.
- Finish installation of northeast stair tower gratings and handrails.
- Start installation of new catwalk conduit and panels.
- Continue electrical conduit rough-in inside the new electrical room for power, controls, lighting and fire alarm
- Finish installation of substation equipment and corresponding conduit.
- Install new distribution panel inside electrical room.
- Continue work related to main power feeders (P-001).
- Layout acoustical ceiling grid in new electrical building.



- Install miscellaneous metal ladders and handrails throughout the project upon arrival.
- Rotate the existing butterfly and gate valve actuators in pump room.
- 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.

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

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

- Patched Screening Channel #3 in accordance with the recommendation of the PE inspection.
- Installed Exhaust Fans EF-60823 & EF-60824.
- Completed the installation of the air handling unit.
- Completed the installation of HVAC ductwork.
- Started Screens Nos. 2 and 3 in manual mode.
- Removed stoplogs from Screening Channels Nos. 2 and 3.
- Continued preparation and submission of administrative and technical submittals.

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

- Demo Screen No. 4.
- Install Screen Nos. 1 and 4.
- Receive delivery and start installation of the first Butterfly Valve.

### **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.

**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:**

- Removed bypass pumps and controls.
- Installed hatch for the bypass.
- Installed handrails.
- Installed end banding on gratings.
- Installed fire extinguishers.
- Started to caulk the link seals.
- Placed concrete for electric platform landing.
- Completed brick patches.
- Started to restoring bathroom area.
- Completed 1910 Audit.
- Performed Generator and ATS training.

**Expected Progress Next Quarter:**

- Install leak and level communication panel.
- Install exit signs.
- Refinish top of entry stoop - dry well.
- Install correct valve box cover (one of the 'sewer' boxes says 'water').
- Install removable handrail - wet well entry level.
- Complete touch up paint.
- Submit remaining O&M.
- Submit remaining startup reports.
- Perform training for HVAC system, MCC and Grinder.

- Substantial Completion. Date of 10/17/2022 has been proposed by Construction Manager though the contractor has requested an earlier date. The 10/17/2022 date will be carried pending resolution and then the milestone certification will be submitted.

#### **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 operation and ramp-up of the Sidestream system.
- Continued submission of O&Ms, As-builts, Closeout submittals, and technical submittals.
- Performed Resin repair on DA tank covers.
- Tied existing Dewatering Building Fire alarm panel to LCP-Sidestream HMCS panel.
- Made modifications to Defoam Containment Basins for centrifuge 3.

##### Expected Progress Next Quarter:

- Continue submission of O&Ms, As-builts, Closeout submittals, and technical submittals.
- Perform OAD for LCP-Sidestream HMCS panel.
- Continue monitoring, ramp-up, and maintaining operation of the Sidestream Centrate treatment process.
- Continue general punch list items.
- Continue installation of Defoam Containment Basins.

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 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 has been initiated that constitutes an agreement by which the County will accept sludge residuals from the City due to the City's digester system becoming disabled.

## 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**

| <b>Description of Work</b>  | <b>Agreement Date</b> | <b><i>Projected/Actual*</i></b> |
|---|-----------------------|---------------------------------|
| 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 revised BNR O&M Plan was submitted to DEC on the June 1, 2022 milestone. Comments were received from DEC and upon resolution the plan was accepted June 29, 2022. Testing is ongoing and the 6-month startup and optimization period is to be initiated near the end of Q3 2022 in advance of the November 1, 2022 milestone date.

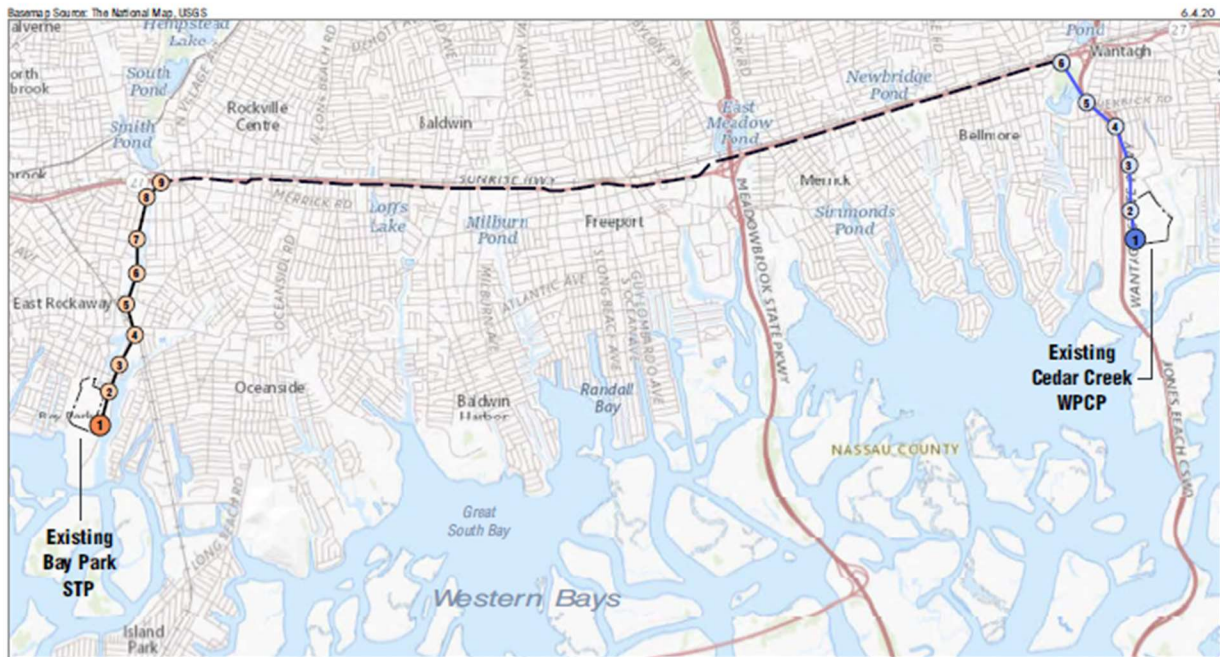
Performance data demonstrates compliance with the revised nitrogen limit that went into effect July 1, 2022.

## 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              | 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                 |                            |                           |
| 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              | 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                |                            |                           |
| 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



Two design completion milestones were met in this reporting quarter as noted in the preceding table.

As noted in Section II of this report, three milestones dates are to be revised as a part of the upcoming Agreement Modification.

### **Progress This Quarter:**

During 2022 Quarter No. 3, 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) to advance the design development and approval of design packages. A total of seventeen (17) design packages at various levels of design for Bay Park Pump Station, Bay Park Micro tunnel, Sunrise Highway Slip lining, and Cedar Creek Outfall infrastructure/facilities were received. Twelve (12) design packages were formally approved as RFCD documents: DP-08 - BPEDPS Pump Station Building, DP-07 - BPEDPS Near Surface Structures, DP-08C Vertical Turbine Pump Specification, DP-16 - Bay Park Micro tunnel Drives BP 3-9, DP-26 Slip line Pits B to N Utility Protection & Relocation, DP-19 Slip line and Work Pits A, N, U, and V, DP-18: Slip line R, S, T, and W and Work Pit W, DP-20: Slip line and Work Pits I,K,L, and M, DP-08B: BPEDPS and CCRS Mini pile Foundations, DP-09: Cedar Creek PS 1 – Pump Station Upgrades, DP-09A Cedar Creek PS 1 - HVAC Modifications and DP-10: Cedar Creek PS 2 - Receiving Station & Existing 84” Diameter Outfall Pipe Wet Tap.

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 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 Resubmission of DP-07 - Bay Park Near Surface Structures, DP-08 Pump Station Building, DP-08C – Vertical Turbine Pump Specification and Final Environmental Subsurface Investigation report. RFCD documents received and reviewed this quarter were DP-07, DP-08 and DP-08C.
- Reviewed and processed numerous works plans and construction submittals, including but not limited to, slide gate, and stop log, rebar shop drawings, Pump Field Test Procedures, electrical product data submittals, and SWPPPs.
- Wet Well Shaft (BP-1) – completed placing concrete and strip formwork. BPEDPS Diversion Structure – Construction of collars around effluent conduit complete, rebar placement for base slab complete, form, pour, and cure base slab up to conduit complete, form, pour, and cure complete, backfill between SOE and East and West Walls complete, form, pour, and cure channel roof slab in process.

Bay Park Microtunnel:

- Received and performed detailed quality and compliance reviews for RFCD DP-16 - Bay Park Micro tunnel Drives 3-9 & Shafts 2-9 Permanent Works. Reviewed and processed numerous work plans and construction submittals, including but not limited to, air seal, response level plan, and SWPPPs. Reviewed and processed numerous work plans and construction submittals, including but not limited to, SWPPPs and Disposal Facility Applications.
- Completed tunnel run from BP-2 to BP-3, stripped/grouted tunnel lines from BP-2 to BP-3. Shaft BP-1 – Completed base slab pour, waterproofing, installation of 72-inch steel pipe elbow, form base access around 72-inch steel pipe. Ongoing backfill, stack manhole, install riser pipe to grade. Shaft 2 – Continued backfill. Shaft BP-4 – Completed excavation and poured base slab. Installed vibration and geotechnical instrumentation and collected baseline readings. Shaft BP-5 – Completed shaft excavation and poured base slab. Initiated lining wall. Shaft BP-7 – Completed post grout verification and continued excavation. Shaft BP-8 – No major activities, continue to backfill and compact spoils pit. Shaft BP-9 – Completed post grout verification.

Sunrise Highway Sliplining:

- Received and performed detailed quality and compliance reviews for numerous packages at varying levels of design, including: DP-18: Slip line R, S, T, and W and Work Pit W, DP-19: Slip line and Pits A, N, U, and V; DP-20 – Sunrise Highway Slip line and Work Pits I, K, L, M; DP-21 – Sunrise Highway Slip line and Work Pits FF, G; DP-22: Slip line and Work Pits B, C, D, E, and F; GG and H; and DP-26 Slip line Pits B to N Utility Protection & Relocation. Received and reviewed five (5) RFCD documents including DP-18, DP-19, DP-20, DP-21, and DP-26.
- Reviewed and processed numerous work plans and construction submittals, including but not limited to, SWPPPs and Disposal Facility Applications.
- Excavate/install SOE and remove host pipe at Pit A completed. Mobilize/set-up MPT, excavate/install SOE, remove host pipe, and clean and prepare invert towards Pit O and at Pit N. Install vibrations and geotechnical instrumentation, install temporary bulkheads at East side of Pit S and strip West end and East end bulkheads at Pit S. Install vibrations and geotechnical instrumentation, install permanent bulkhead at East side, grout annulus towards Pit S, strip bulkheads at West side and install closure pipe and coupling completed at Pit T. Backfill ongoing at Pit T. Install vibrations and geotechnical instrumentation, excavate/install SOE, remove host pipe, clean and prepare invert towards Pit T, install jacking equipment, jack pipe towards Pit T, rotate jacking equipment, conduct joint tests, jack pipe towards Pit V, remove jacking equipment, install bulkheads at East and West sides, grout annulus towards Pits T and V and strip bulkheads completed at Pit U. Install vibrations and geotechnical instrumentation, excavate/install SOE, remove valve and reducer, clean and prepare invert towards Pit U, install jacking equipment, jack pipe towards Pit W, conduct joint tests, remove jacking equipment, install bulkheads at East and West sides, grout annulus towards Pit W, strip bulkheads and install closure pipe completed at Pit V. Backfill ongoing at Pit V. Install vibrations and geotechnical instrumentation, mobilize/set-up MPT, carry in carrier pipe, conduct joint tests and install West side bulkheads completed at Pit W.

Excavate/install SOE ongoing at Pit W. Sunrise Highway Utility Relocation – test pits at Shaft R.

**Cedar Creek Microtunnel:**

- Received and performed detailed quality and compliance reviews for numerous packages at varying levels of design, including: DP-14 - Cedar Creek Microtunnel Drives 2-1, 2-3, 4-3, 4-5, and 5-6; and MT Seismic Site Class Memo. The one (1) RFCD document received and reviewed was DP-14.
- Reviewed and processed numerous work plans and construction submittals, including but not limited to, SWPPPs and Disposal Facility Applications, pumps, pump test procedures and FEA analysis, Asbestos Abatement Plan (AAP) and Lead Abatement Plan (LAP) for Cedar Creek Pump Station, electrical submittals.
- CC-1 - Completed shaft excavation. CC-2 – Completed excavation and poured lining wall. CC-3 - Completed excavation. CC-4 - Finalized installation of CSM panels, finalized Jet Grouting, performed post grout verification. CC-5 – completed jet grouting and post grout verification. CC-6 - completed jet grouting and post grout verification. Completed installation of Vibration and Geotechnical Instrumentation at CC-4 and CC-5. Initiated instrument installation at 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-08B – CCRS Mini pile Foundations; DP-09: Cedar Creek PS 1 – Pump Station Upgrades; DP-09A - CCPS HVAC Modifications; DP-09B: Cedar Creek PS 1 – SG-7 Modifications; DP-10 - Cedar Creek Receiving Station and Wet Tap and Final Discharge Header Report. Received and reviewed five (5) RFCD documents including Dp-08B, DP-09, DP-09A, DP-09B and DP-10.
- Continued form, rebar, pour, and cure pile caps and foundation pad.

**Expected Progress Next Quarter:**

**Bay Park Effluent Diversion Pump Station:**

- All Design Packages in this area have been approved.
- Wet Well Shaft (BP-1) - continue internal wall work. BPEDPS Diversion Structure – Complete channel roof slabs, continue onboarding and fabrication of effluent pumps, and deliver lighting fixtures.

**Bay Park Microtunnel:**

- All Design Packages in this area have been approved.
- Anticipate MTBM runs Shaft BP-3 to Shaft BP-4 and Shaft BP-4 to Shaft BP-5. Shaft BP-5 – Pour base slab. Shaft BP-7 – Complete shaft excavation. Shaft BP-8 – Excavate shaft. BP-9 – shaft excavation/Pit A SOE.

**Sunrise Highway Sliplining:**

- Anticipate receipt of packages at RFCD levels of design, including: DP-22 RFCD, and DP-21 Sunrise Highway Slip line and Work Pits FF, G RFCD resubmission.

- Continue slip lining and excavation of Work Pits.

Cedar Creek Microtunnel:

- No more design submissions for Cedar Creek Micro tunnel.
- Prepare for MTBM launch and begin MTBM drives at CC-1, CC-2, and CC-3, followed by CC-4, CC-5, and CC-6

Cedar Creek Effluent Pump Station/Receiving Station:

- Anticipate receipt of one (1) revised RFCD package, DP-09B - Slide Gate & Tide Gate Modifications, and first RFCD submission for DP-11A – CC Outfall Cleanout Chamber Preliminary Study.
- 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   | 6/01/2022  |
| b. Begin implementing the approved CMOM plans   | Upon DEC Approval  |
| 2. CMOM Program – Submit Operating Plan for Bay Park Conveyance System  | 60% Design + 6 Months  |
| 3. Preliminary Engineering Report<br>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  | 60% Design + 6 Months  |
| a. If required after item 2 obligations are complete, submit I/I study work plans for Bay Park STP and Cedar Creek WPCP | Within 9 months of work plan approval or per approved schedule |
| b. Submit Report of I/I study findings  |  |

The County has submitted the draft CMOM plans to DEC for review in this reporting quarter. Draft I&I studies have been submitted to the County by their consultant and they are currently under review. Revised milestone dates proposed by the County have been accepted by DEC for incorporation into the Modification which is still in progress.

## **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 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.

## 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                             | 10/29/2020     | 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              | -                      |
| 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              |
| Submit Approvable Revised BNR O&M Plan         | 6/1/2022       | 6/1/2022                | 6/29/2022              |

## XI.0

# Community Relations

From July through September 2022, the State, County, and Design Builder continued in their efforts to disseminate and field community concerns via various community engagement initiatives for the Conveyance Project.

On August 23, the Project hosted a MWDBE-SDVOB opportunity session remotely to share information regarding potential opportunities for certified businesses to partake in relevant contracts.

On September 1 from 6 – 7:30pm, the State, County, and Design-Builder held the quarterly general public information session (since the Project’s Notice-to-Proceed) remotely 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.

Meetings with local elected officials and first responders took place on July 26, August 30, and September 27, 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.

Stakeholder meetings which included chambers of commerce, local civic associations, and homeowners’ associations also took place during Q3: on July 27, August 31, and September 28. 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 construction schedule for work at the Sunrise Highway Pits.

In addition to the above meetings, the State and County hosted site tours along the Project alignment for DHSES and EFC representatives on August 18 and September 14 respectively.

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.

### 2022 Q3 Outreach Summary:

| Item/ Description   | Dates  |
|---|--|
| Quarterly Public Information Session                        | September 1  |
| Project MWDBE-SDVOB opportunity session                     | August 23  |
| Monthly Meeting with First Responders and Elected Officials | <ul style="list-style-type: none"> <li>• July 26</li> <li>• August 30</li> <li>• September 27</li> </ul> |



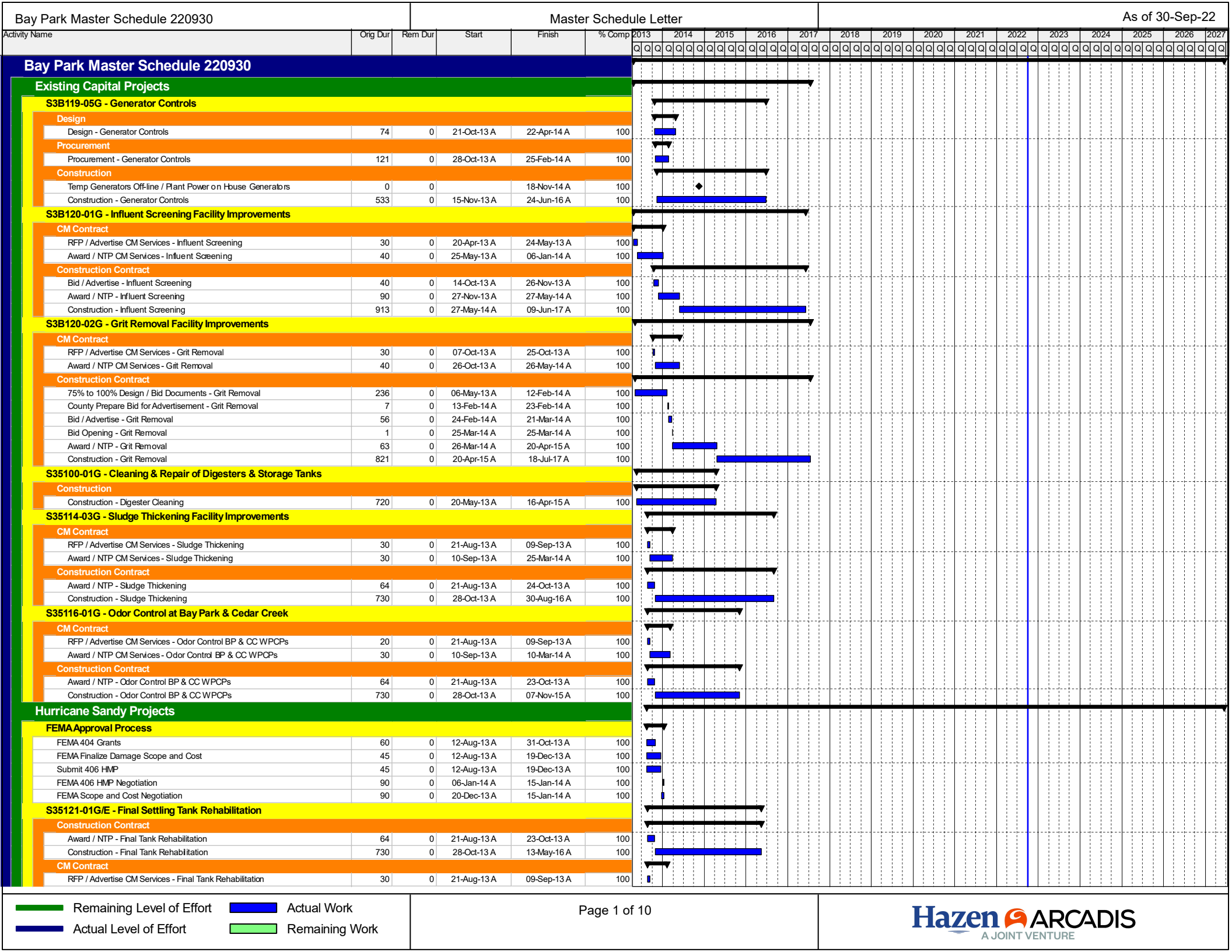
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|--|--|
| Monthly Meeting with Stakeholders, i.e. Chambers of Commerce, Civics, and Homeowners' Associations | <ul style="list-style-type: none"><li>• July 27</li><li>• August 31</li><li>• September 28</li></ul> |
| Site Tours   | <ul style="list-style-type: none"><li>• August 18 (DHSES)</li><li>• September 14 (EFC)</li></ul>     |

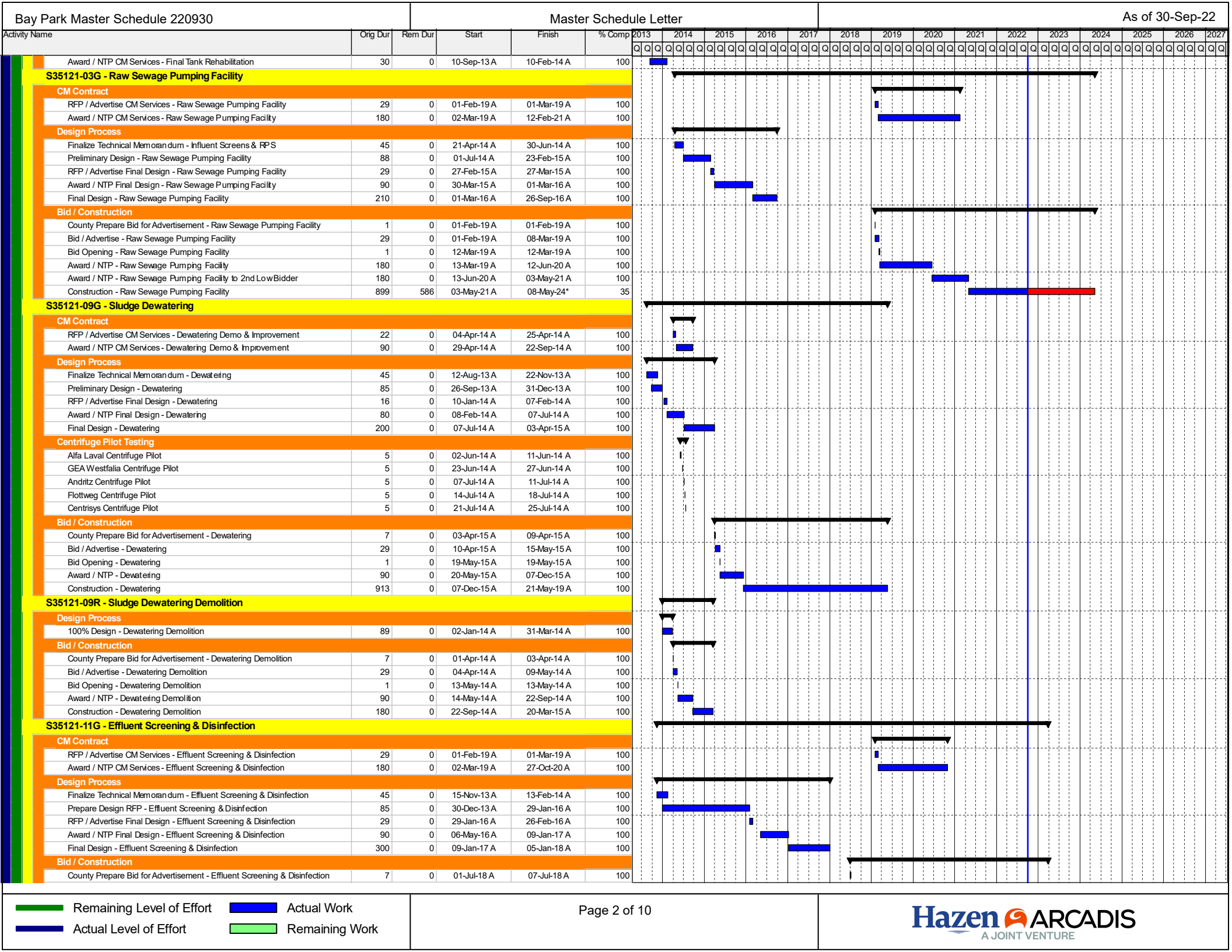
## XII.0

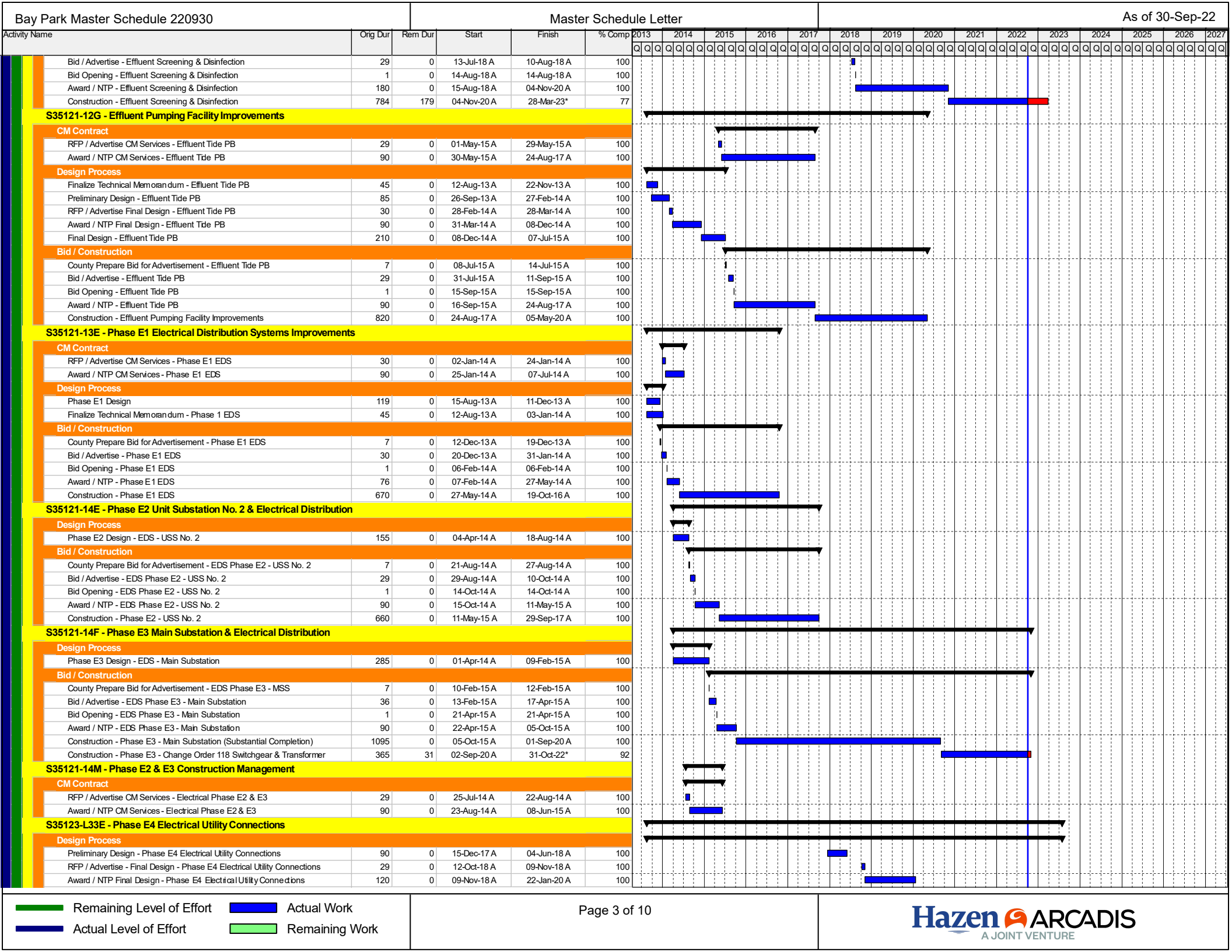
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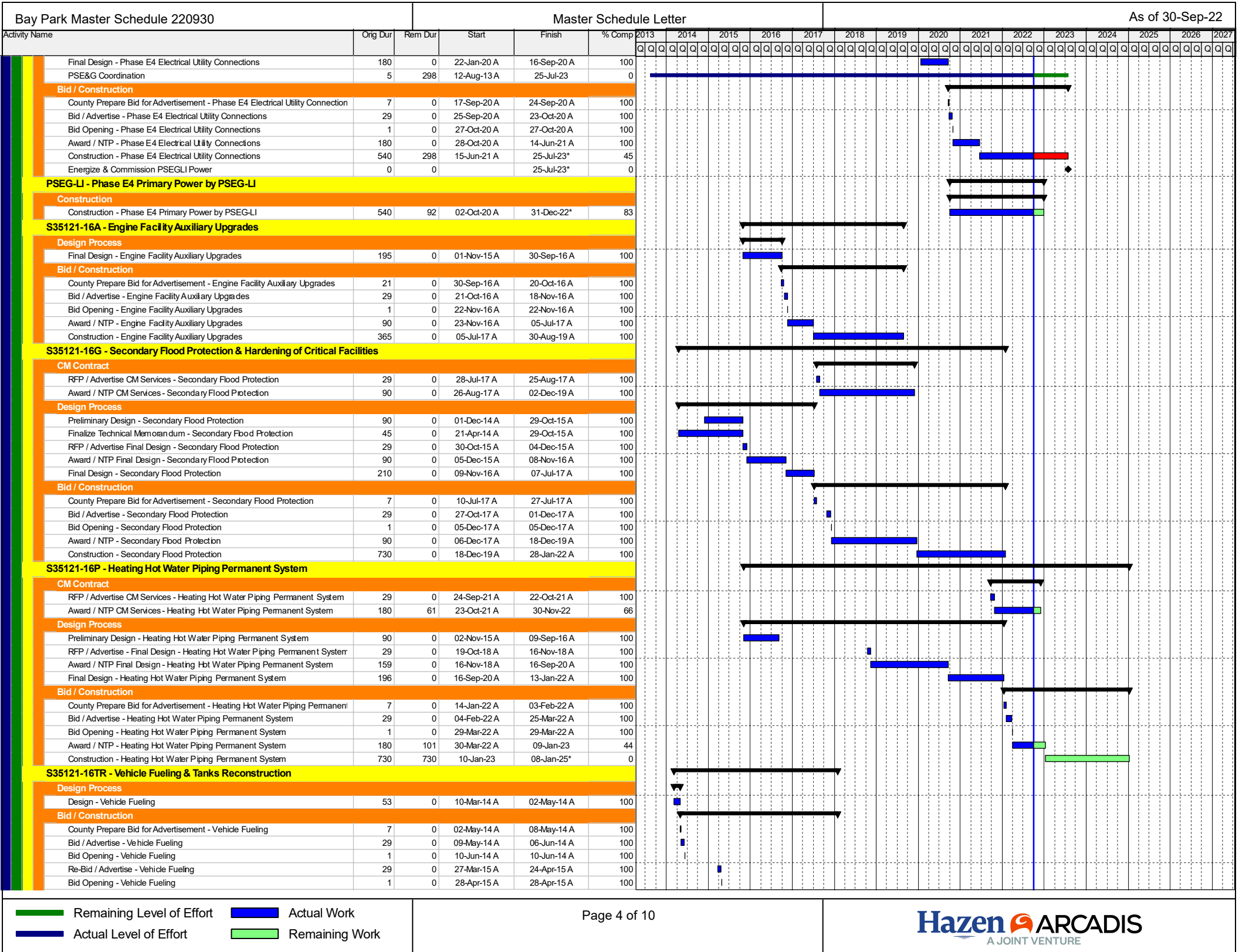
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1. Program Master Schedule

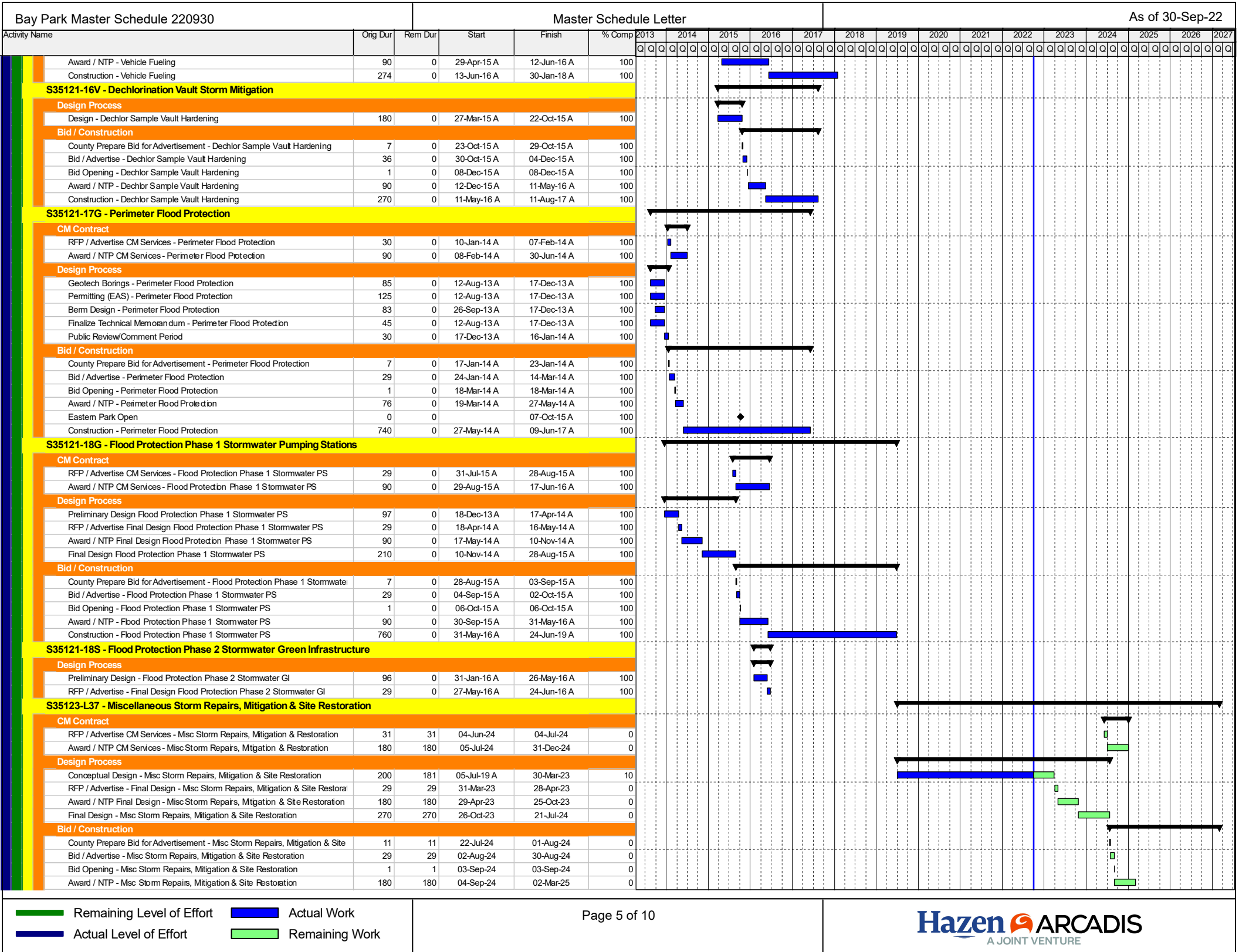


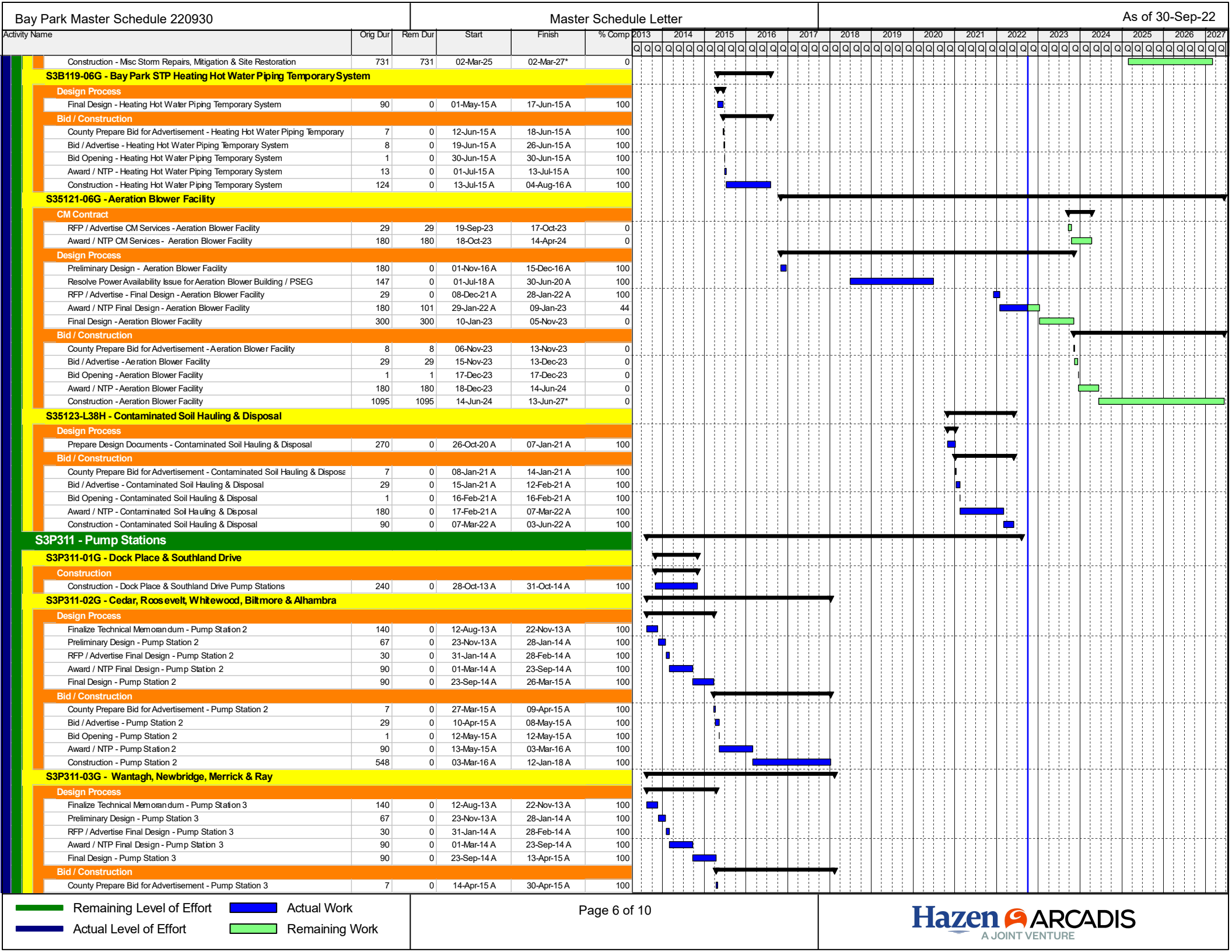




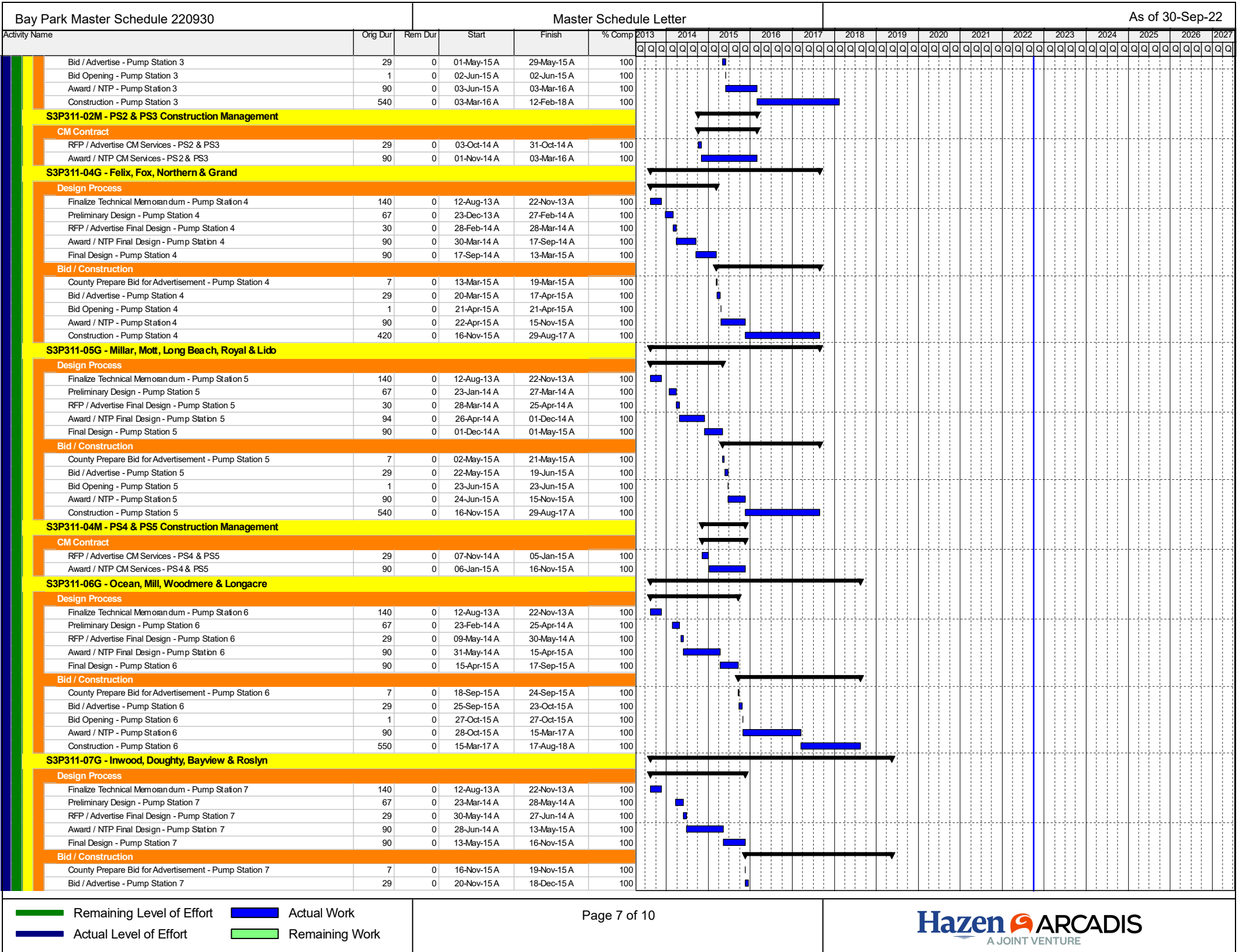


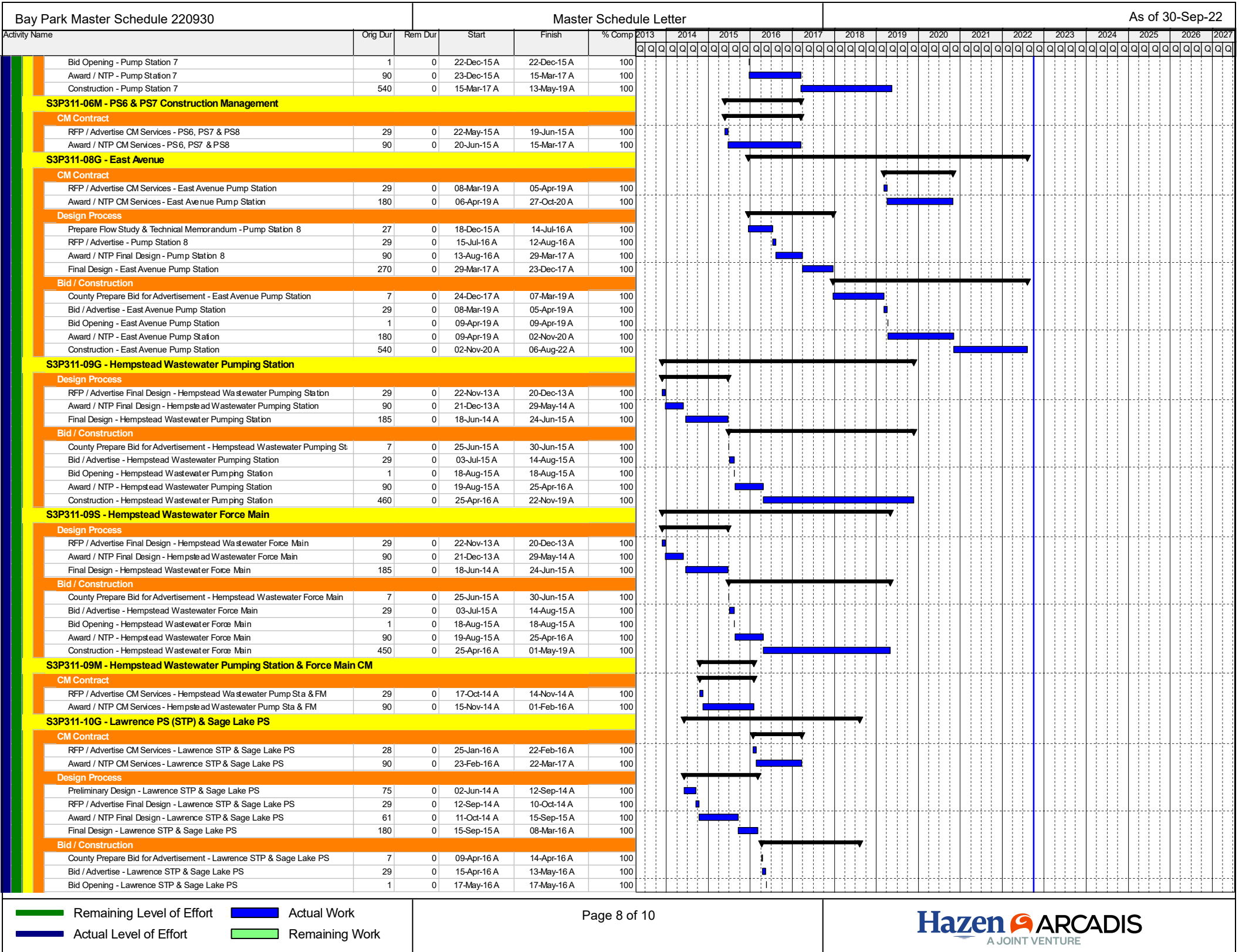


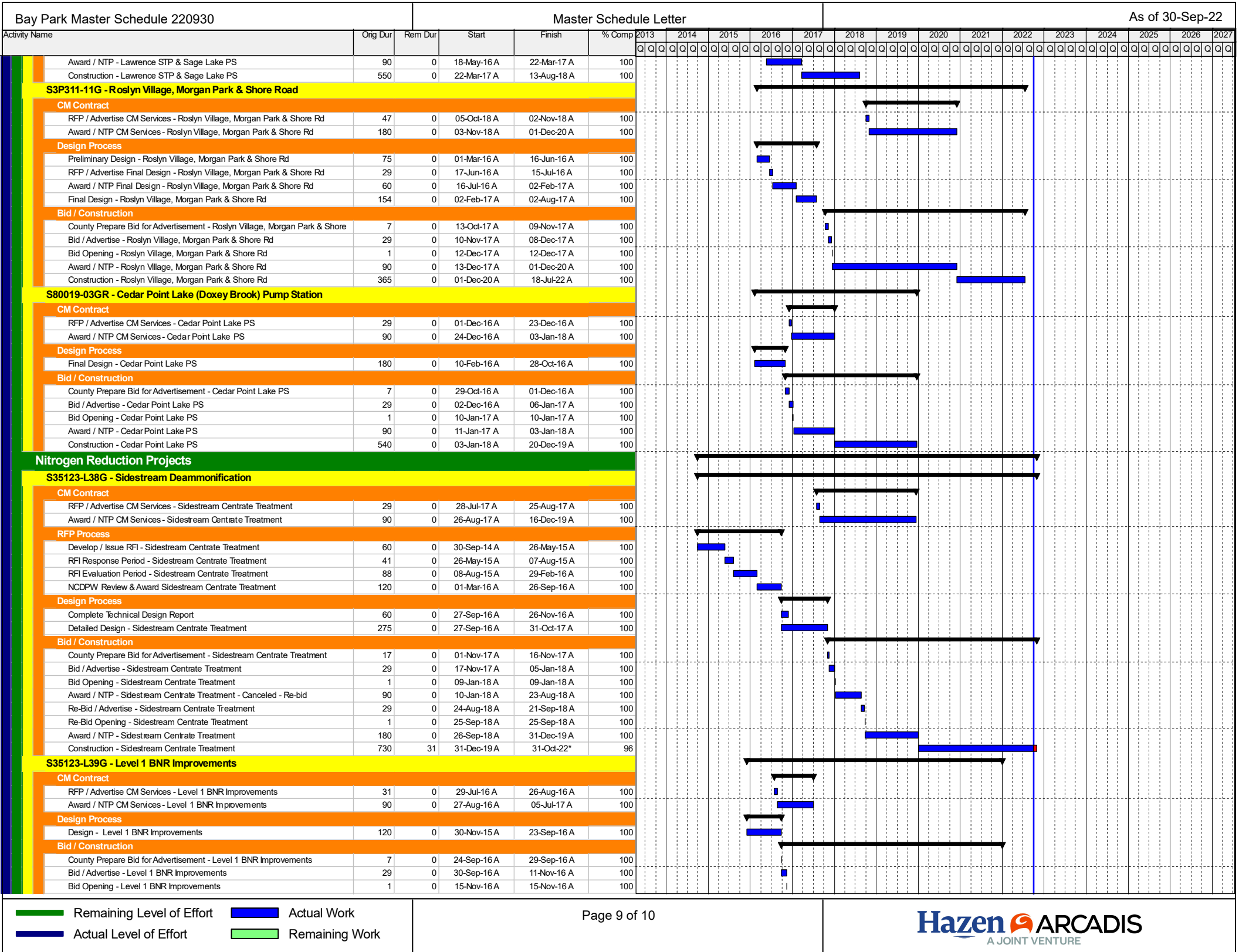


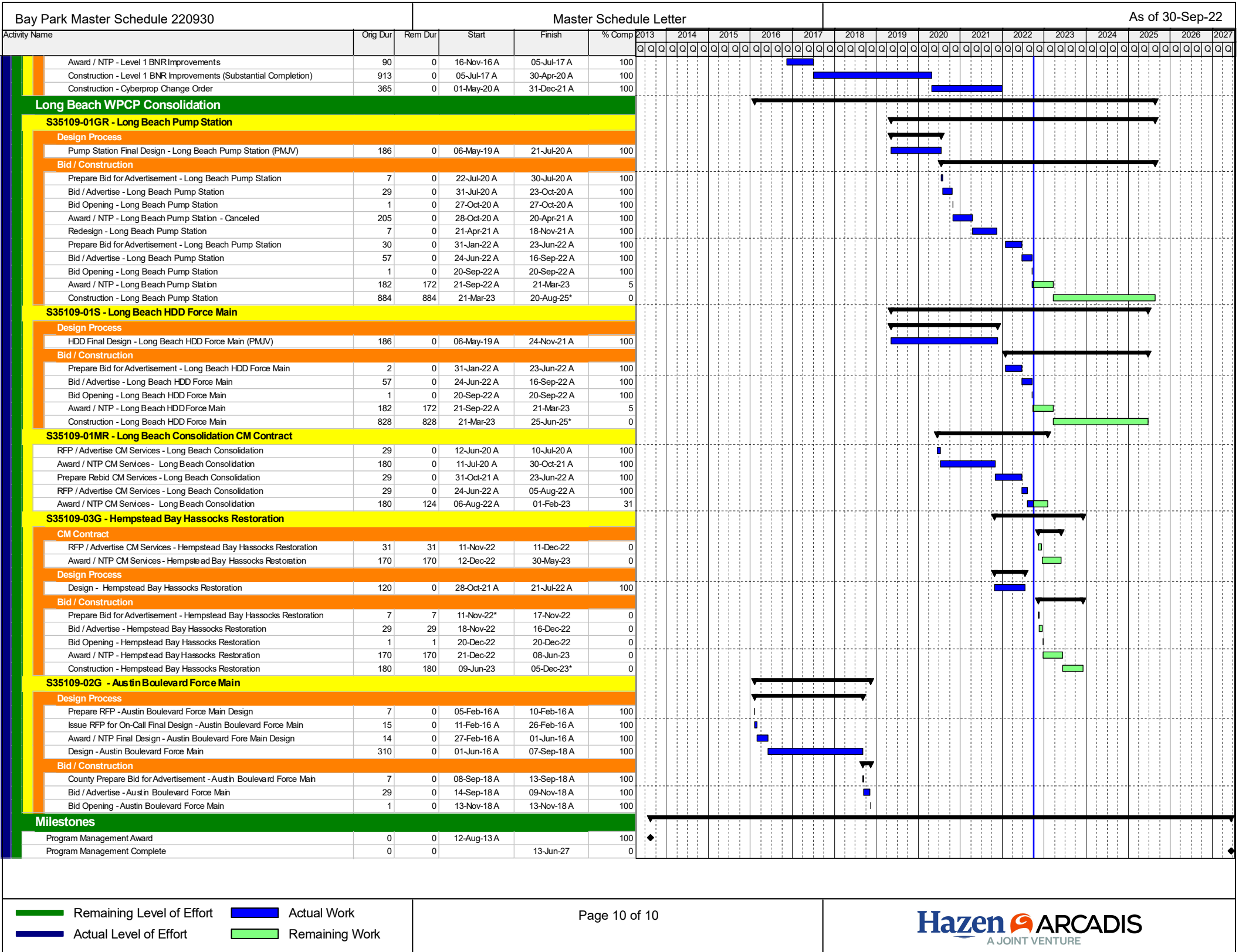










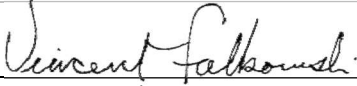


## XIII.0

## 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               |
|  |  | 10/25/2022          |
| Signature   |  | Date Signed         |