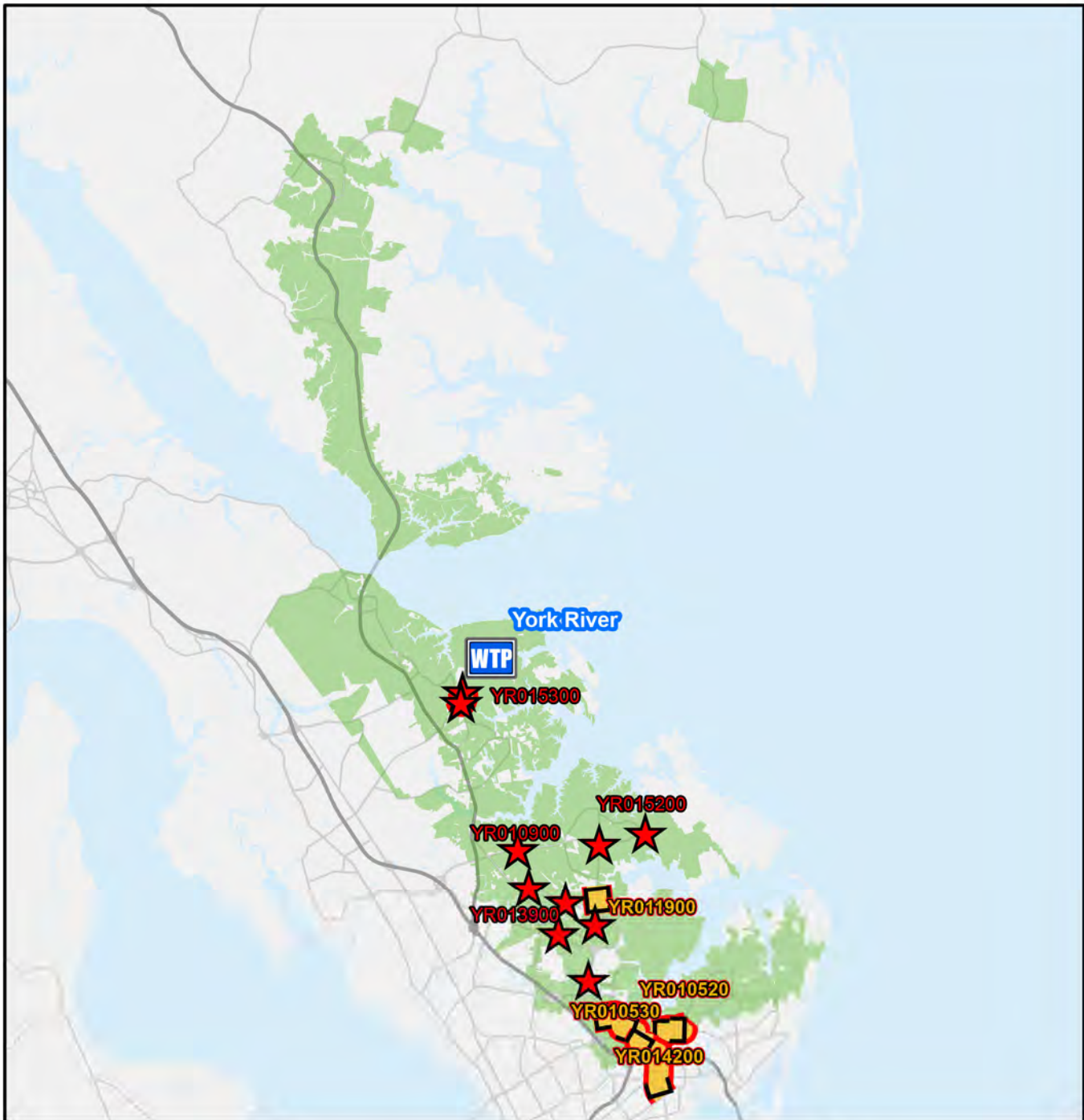


York River Treatment Plant





Legend

 York River Treatment Plant

 CIP Interceptor Point

 CIP Pump Station Point

 CIP Interceptor Line

 CIP Abandonment

 Treatment Plant Service Area

 HRSD Interceptor Force Main

 HRSD Interceptor Gravity Main

 HRSD Treatment Plant

 HRSD Pressure Reducing Station

 HRSD Pump Station

0 5,000 10,000 20,000 30,000 40,000 Feet

York River Treatment Plant Service Area CIP Projects

Treatment Plant Projects

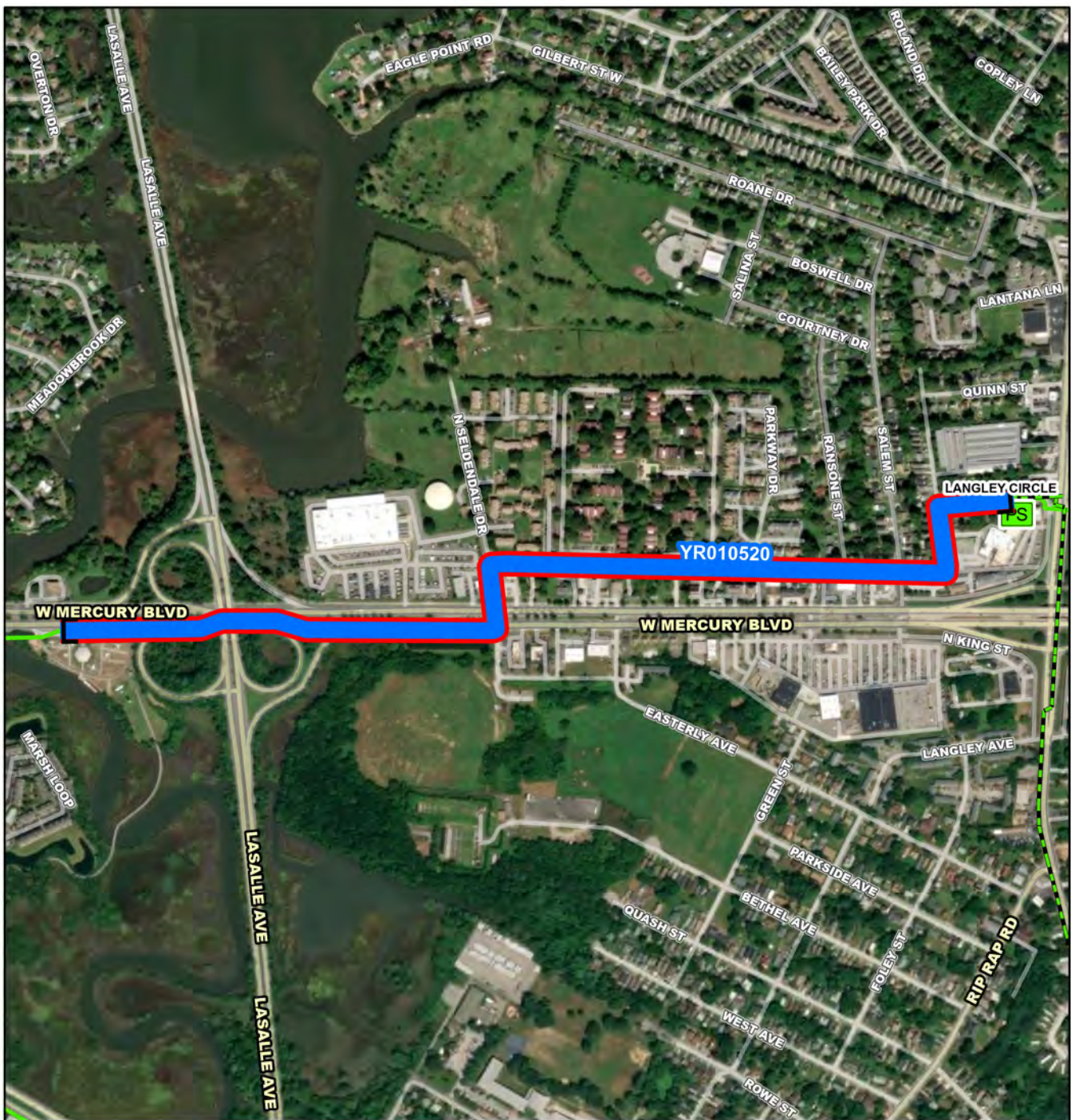
YR014900
YR015400



CIP Location



Service Area



YR010520

- Project Interceptor Line
- Project Interceptor Point
- Project Location Point
- Project Area

Legend

- ★ CIP Interceptor Point
- ☆ CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 275 550 1,100 1,650 2,200 Feet

YR010520

Magruder Mercury Interceptor Force Main Replacement - Section B

HRSD

N
W E
S

CIP Location

System: York River
Type: Pipelines

Driver Category: Aging Infrastructure/Rehabilitation
Project Phase: Design
Regulatory: None

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35
\$19,362	\$1,432	\$9,496	\$8,427	\$7	\$0	\$0	\$0	\$0	\$0	\$0	\$0

PROJECT DESCRIPTION

This project will consist of design and construction for the replacement of the Langley Circle Pump Station yard piping and the targeted replacement of approximately 3,800 linear feet (LF) of the 6,200 LF of 30-inch prestressed concrete cylinder pipe (PCCP) and ductile iron (DI) force main (NF-058) from the Langley Circle Pump Station to just east of the Newmarket Creek Crossing in Hampton identified in the Preliminary Engineering Report as high-risk segments. The target replacement will start at the intersection of North Seldendale Drive and Doolittle Road to a downstream connection location near Air Power Park, located on W. Mercury Boulevard. This project will require bypass pumping and temporary piping to facilitate maintenance of existing flows during construction.

PROJECT JUSTIFICATION

There are a number of infrastructure issues providing the justification for this project and each one will be addressed during the design of the replacement. A force main break and emergency repair occurred on this line in the vicinity of Langley Circle Pump Station due to crown corrosion, and condition assessment efforts performed during the preliminary engineering phase identified which portions of the force main were installed in corrosive soils with no existing corrosion protection and elevated risk of internal crown corrosion.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

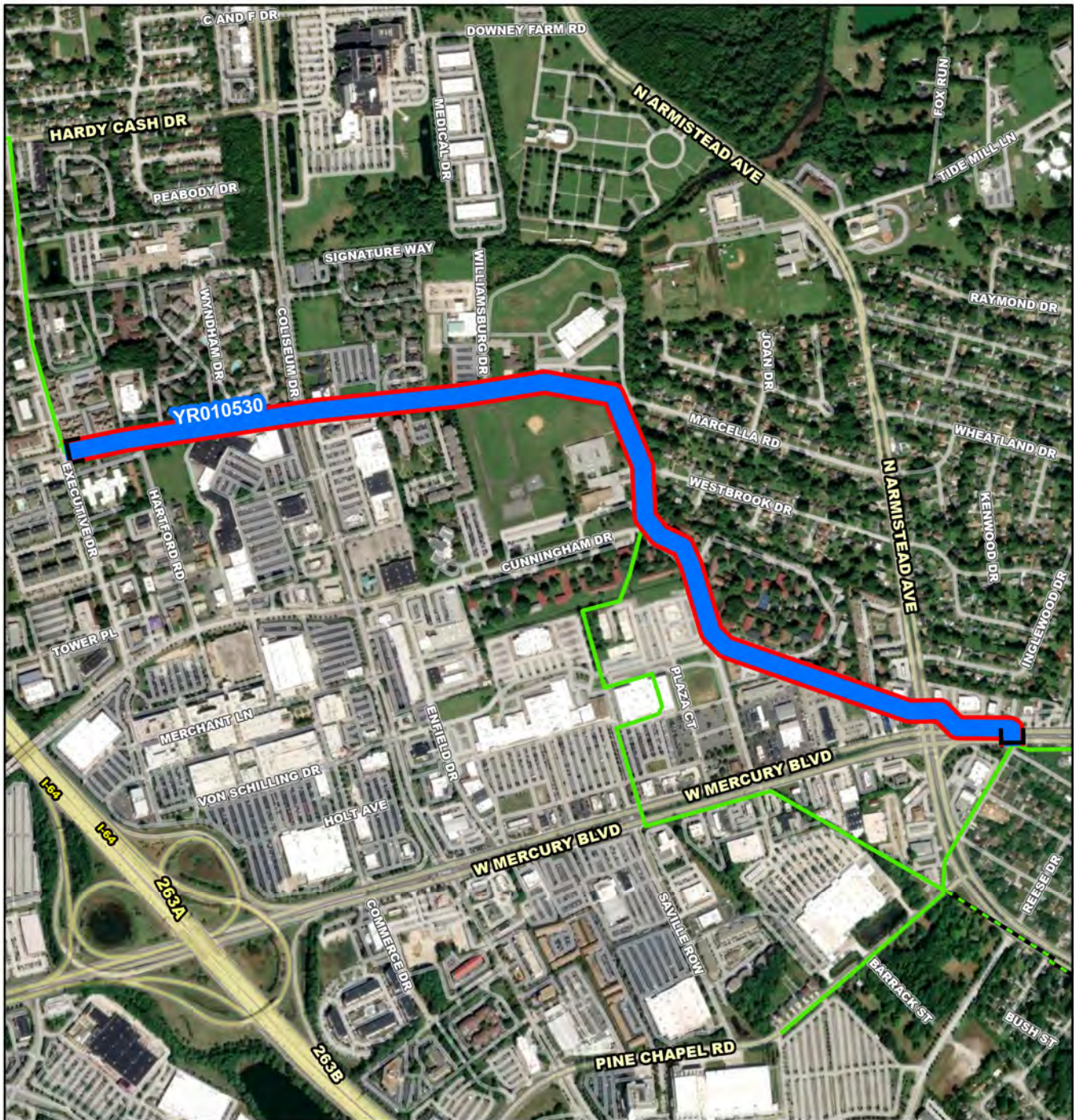
Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Beatriz Patino
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

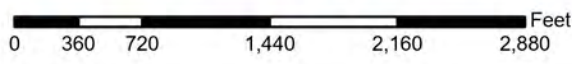
PrePlanning	07/01/2019
PER	12/16/2020
Design Delay	10/08/2021
Design	02/01/2022
Bid Delay	07/01/2025
PreConstruction	08/01/2025
Construction	10/01/2025
Closeout	03/01/2027

COST ESTIMATE

Cost Estimate Class:	Class 2 (-5% to +20%)
PrePlanning	\$61,785
PER	\$243,373
Design	\$1,126,922
PreConstruction	\$20,000
Construction	\$17,900,000
Closeout	\$10,000
Est. Program Cost	\$19,362,080
Contingency Budget	\$1,936,208
Est. Project Costs	\$21,298,288



- YR010530**
- Project Interceptor Line
 - Project Interceptor Point
 - Project Location Point
 - Project Area
- Legend**
- CIP Interceptor Point
 - CIP Pump Station Point
 - CIP Interceptor Line
 - CIP Abandonment
 - CIP Project Area
 - HRSD Interceptor Force Main
 - HRSD Interceptor Gravity Main
 - HRSD Treatment Plant
 - HRSD Pressure Reducing Station
 - HRSD Pump Station



YR010530

**Magruder Mercury Interceptor Force Main
Replacement - Section C**



CIP Location



System: York River
Type: Pipelines

Driver Category: Aging Infrastructure/Rehabilitation
Project Phase: Proposed
Regulatory: None

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35
\$17,270	\$0	\$0	\$0	\$0	\$250	\$1,000	\$7,353	\$8,000	\$667	\$0	\$0

PROJECT DESCRIPTION

This project will consist of design and construction for the replacement of 8,300 linear feet (LF) of 30-inch prestressed concrete cylinder pipe (PCCP) force main (NF-058) from the intersection of Mercury Boulevard and Windsor Drive to just east of the intersection of Executive Drive and Marcella Road. This project will require bypass pumping and temporary piping to facilitate maintenance of existing flows during construction.

PROJECT JUSTIFICATION

There are a number of infrastructure issues providing the justification for this project and each issue should be considered during the design of the replacement. During the by-pass operation required during the VDOT relocation in the late 1980s, significant debris and sedimentation was observed. The as-built profile and the construction methods used during the original installation of this line provide indication that numerous locations of this force main are at elevated risk for internal crown corrosion. Lastly, there are numerous locations where building structures and/or lack of vehicular and equipment access present significant operational response difficulties.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Chris Stephan
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	09/01/2028
PER	10/01/2028
Design Delay	12/01/2028
Design	08/01/2029
Bid Delay	11/01/2029
PreConstruction	07/01/2030
Construction	08/01/2030
Closeout	08/01/2032

COST ESTIMATE

Cost Estimate Class:	Class 5 (-20% to +100%)
PrePlanning	\$0
PER	\$250,000
Design	\$1,000,000
PreConstruction	\$20,000
Construction	\$16,000,000
Closeout	\$0
Est. Program Cost	\$17,270,000
Contingency Budget	\$1,603,289
Est. Project Costs	\$18,873,289



YR010900

-  Project Interceptor Line
-  Project Interceptor Point
-  Project Location Point
-  Project Area

Legend

-  CIP Interceptor Point
-  CIP Pump Station Point
-  CIP Interceptor Line
-  CIP Abandonment
-  CIP Project Area
-  HRSD Interceptor Force Main
-  HRSD Interceptor Gravity Main
-  HRSD Treatment Plant
-  HRSD Pressure Reducing Station
-  HRSD Pump Station

0 25 50 100 150 200 Feet

YR010900

Tabb Pressure Reducing Station and Offline Storage Facility



CIP Location





Tabb Pressure Reducing Station and Offline Storage Facility

PR_YR010900

System: York River
Type: Offline Storage

Driver Category: I&I Abatement-IP/RWWMP
Project Phase: Construction
Regulatory: Integrated Plan-HPP 1

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35
\$40,819	\$26,977	\$13,842	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

PROJECT DESCRIPTION

This project will construct a new Pressure Reducing Station (PRS) and Offline Storage Tank in the vicinity of Tabb High School in York County, Virginia. The precise capacity of the station and volume of the tank will be determined during the preliminary design.

PROJECT JUSTIFICATION

Staff determined the Tabb PRS and Offline Storage Facility project would eliminate the need for an onsite storage vessel at the James River Treatment Plant (JRTP). The facility will provide flow equalization to both York River and James River Treatment plants and also provide system relief during wet weather events.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

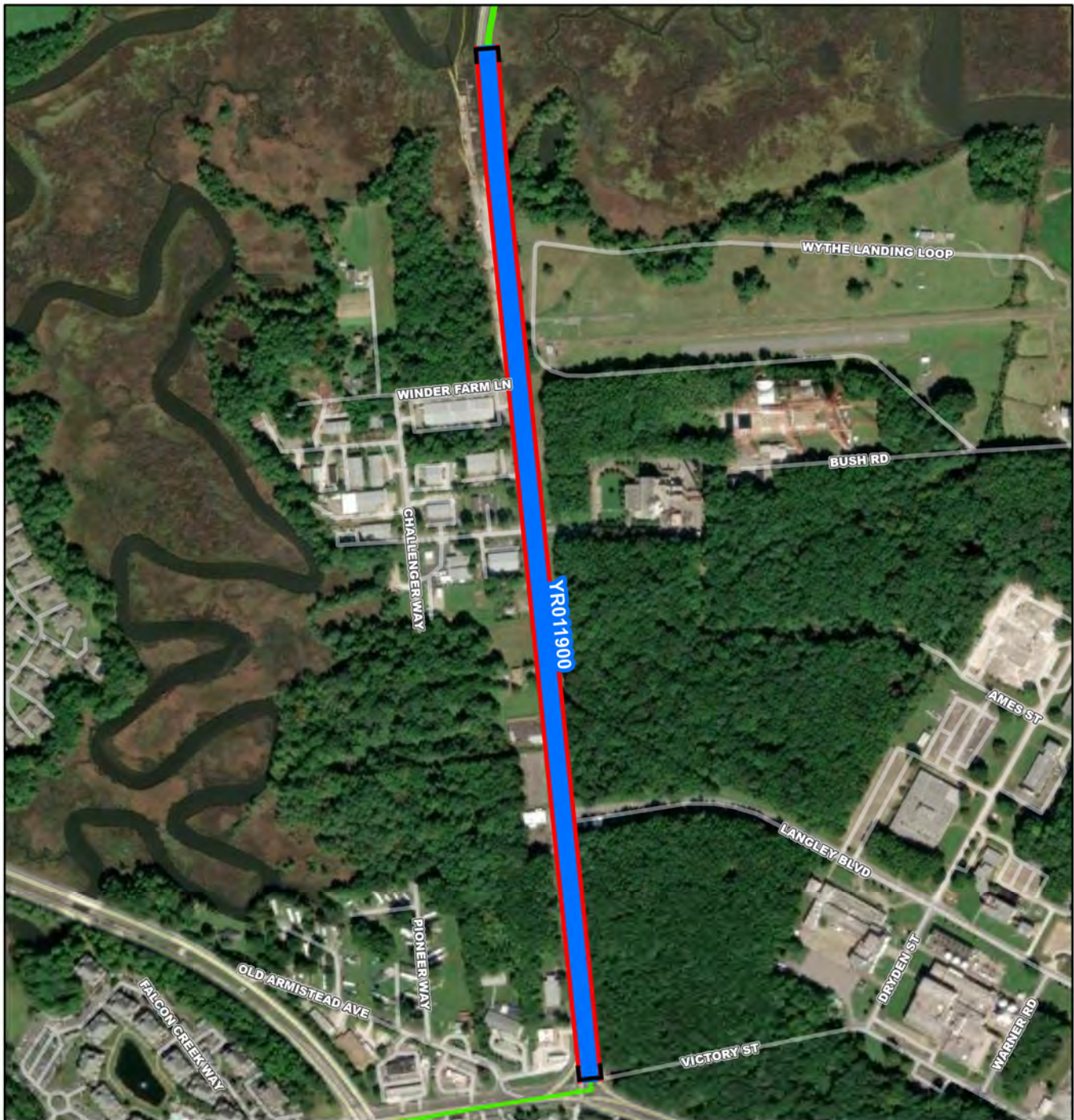
Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Angela Weatherhead
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	02/28/2020
PER	06/01/2020
Design Delay	02/21/2022
Design	02/20/2021
Bid Delay	07/05/2023
PreConstruction	09/18/2023
Construction	01/01/2024
Closeout	05/01/2026

COST ESTIMATE

Cost Estimate Class:	Class 1 (-3% to +15%)
PrePlanning	\$1,229
PER	\$585,657
Design	\$3,085,330
PreConstruction	\$22,681
Construction	\$37,099,267
Closeout	\$25,000
Est. Program Cost	\$40,819,164
Contingency Budget	\$3,406,115
Est. Project Costs	\$44,225,279



YR011900

- Project Interceptor Line
- Project Interceptor Point
- Project Location Point
- Project Area

Legend

- ★ CIP Interceptor Point
- ☆ CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 220 440 880 1,320 1,760 Feet

YR011900

Bethel-Poquoson Force Main Part III Replacement

HRSD

N
W E
S

CIP Location

System: York River
Type: Pipelines

Driver Category: Relocation
Project Phase: Construction
Regulatory: None

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35
\$1,680	\$889	\$627	\$162	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$0

PROJECT DESCRIPTION

This work will be constructed as part of a Virginia Department of Transportation (VDOT) roadway improvements project. Portions of the existing pipeline will be relocated at VDOT project expense and some portions will be relocated at HRSD expense. This project will replace and/or rehabilitate approximately 4,400 linear feet of existing 20-inch pre-stressed concrete cylinder pipe (PCCP) along the eastern edge of Wythe Creek Road. VDOT will replace approximately 2,650 feet of pipe at project cost and HRSD will be responsible for replacement of 1,750 feet of pipe at HRSD's cost.

PROJECT JUSTIFICATION

The relocation of this pipeline is due to a VDOT roadway project to widen Wythe Creek Road.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

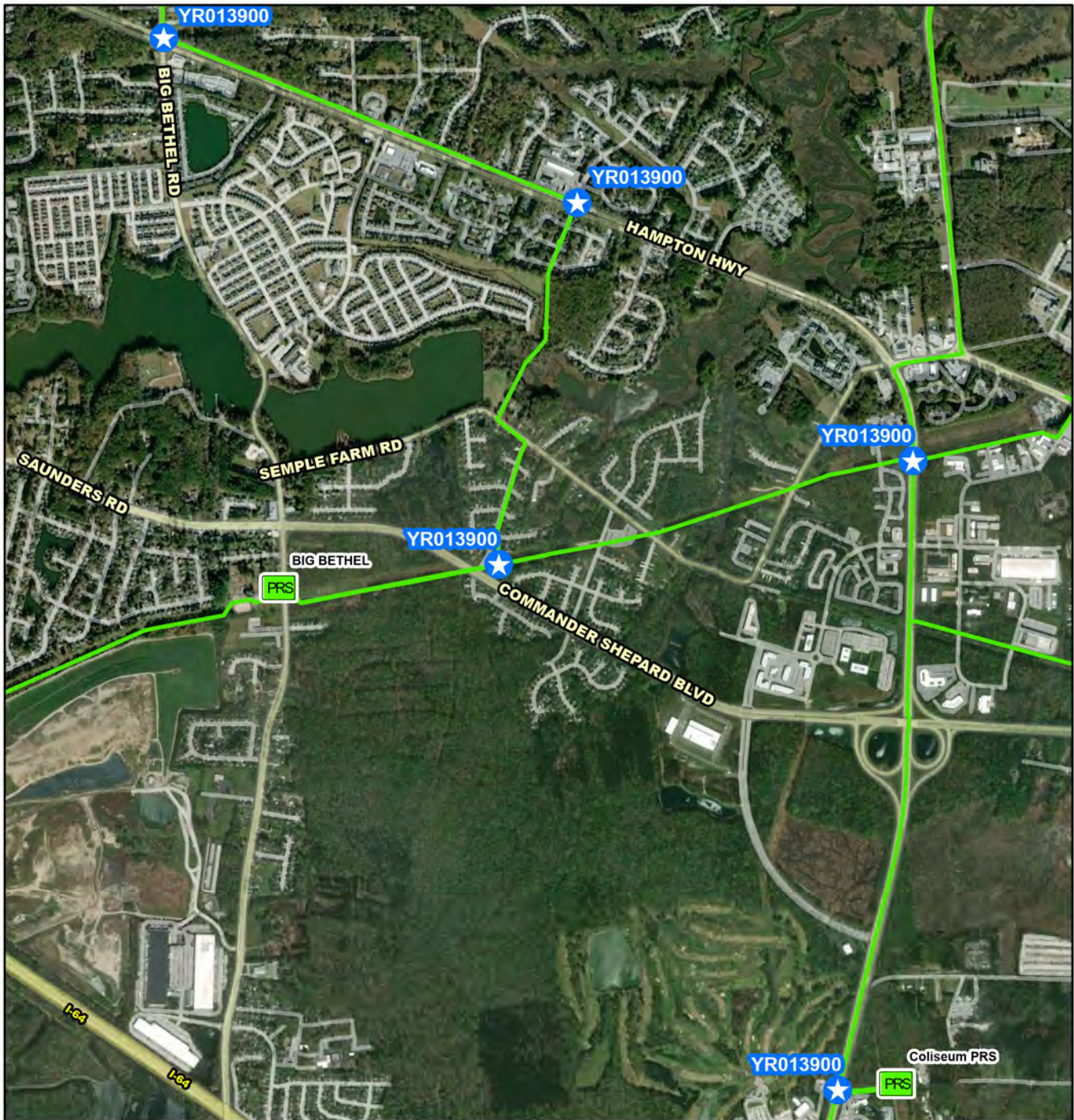
Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Shirley Smith
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	01/01/2015
PER	01/01/2015
Design Delay	01/01/2015
Design	01/01/2015
Bid Delay	08/21/2020
PreConstruction	11/01/2023
Construction	03/01/2024
Closeout	10/01/2026

COST ESTIMATE

Cost Estimate Class:	Class 1 (-3% to +15%)
PrePlanning	\$0
PER	\$0
Design	\$17,998
PreConstruction	\$0
Construction	\$1,608,454
Closeout	\$7,090
Est. Program Cost	\$1,633,542
Contingency Budget	\$141,800
Est. Project Costs	\$1,775,342



YR013900

- Project Interceptor Line
- Project Interceptor Point
- Project Location Point
- Project Area

Legend

- ★ CIP Interceptor Point
- ☆ CIP Pump Station Point
- Orange line CIP Interceptor Line
- Red line CIP Abandonment
- Red box CIP Project Area
- Green line HRSD Interceptor Force Main
- Black line HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 500 1,000 2,000 3,000 4,000 Feet

YR013900

York River System Isolation Valve Installation and Replacement

N
W E
S

CIP Location



York River System Isolation Valve Installation and Replacement

PR_YR013900

System: York River
Type: Pipelines

Driver Category: Aging Infrastructure/Rehabilitation
Project Phase: Closeout
Regulatory: None

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35
\$8,993	\$8,883	\$110	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

PROJECT DESCRIPTION

This project will install eight new valves and replace three existing valves. These valves are main line and branch isolation valves within the force main system from Coliseum Pressure Reducing Station (PRS) to the proposed Tabb PRS and will provide operational flexibility for isolation and flow diversion.

PROJECT JUSTIFICATION

On December 20th, 2018, North Shore Operations responded to a failure along NF-047 in the vicinity of Semple Farm Road. Efforts to minimize the effects of environmental and physical damage were extensive. Round the clock operation was necessary to divert flows, minimize spills and restore service. A temporary repair was made to contain lost sewage and pump it back into the force main system. Final repair consisted of an engineer designed replacement of approximately 300 linear feet (LF) of force main utilizing linestops. The existing force main system from Coliseum PRS to Tabb PRS consists of approximately 38,000 LF of force main with very few locations for potential isolation. The force main system was primarily installed in the late 1960's and early 1970's and consists of Prestressed Concrete Cylinder Pipe (PCCP), Ductile Iron (DI) and Cast Iron (CI) pipe. The lack of isolation valves significantly reduces the ability for isolating and diverting flows during emergencies, as seen during the failure at Semple Farm.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

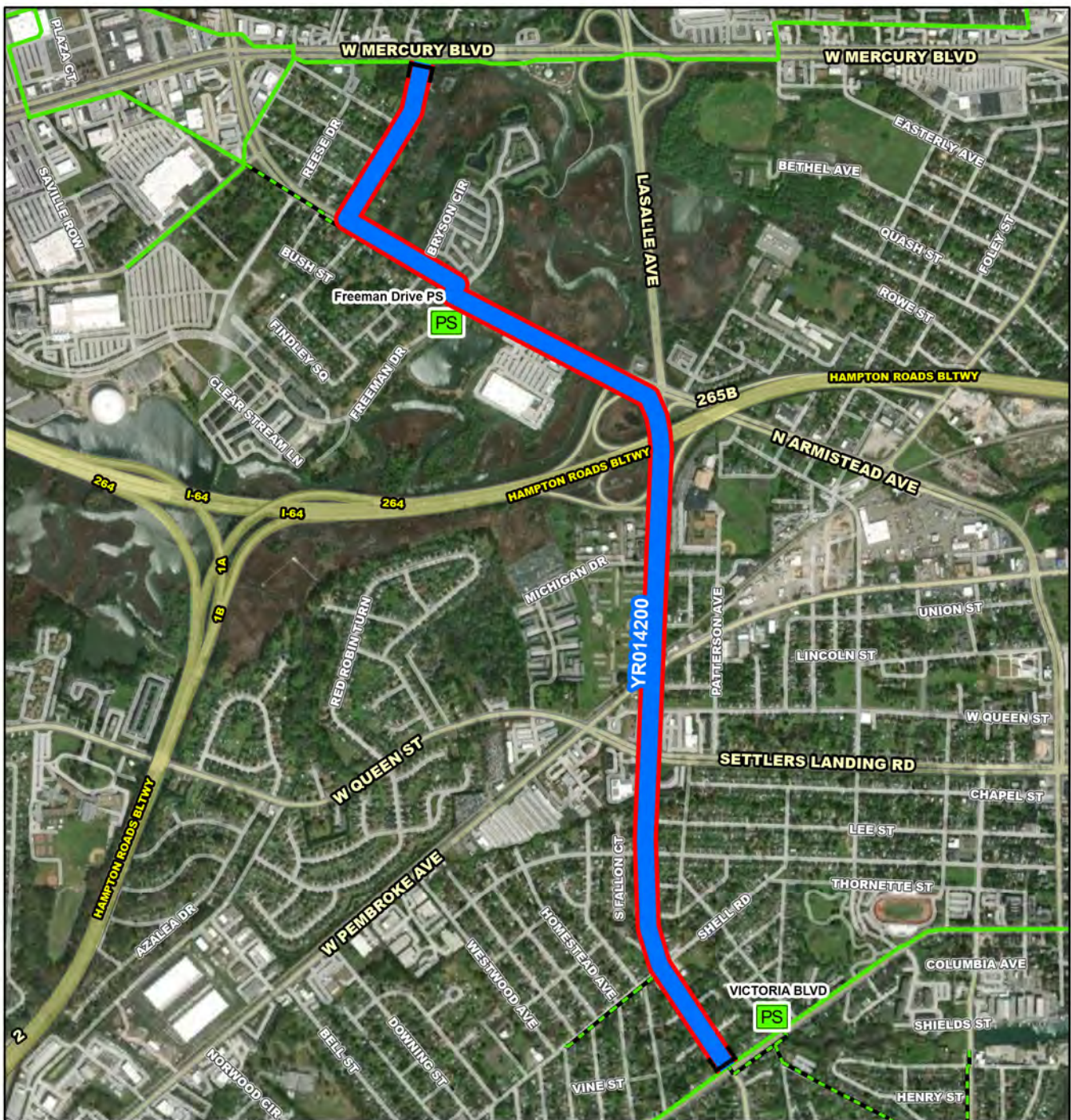
Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Michael Johnson
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	07/01/2019
PER	11/28/2019
Design Delay	04/25/2020
Design	04/25/2020
Bid Delay	03/23/2022
PreConstruction	04/15/2022
Construction	07/14/2022
Closeout	08/01/2025

COST ESTIMATE

Cost Estimate Class:	Class 1 (-3% to +15%)
PrePlanning	\$0
PER	\$65,023
Design	\$344,164
PreConstruction	\$9,900
Construction	\$8,554,003
Closeout	\$20,000
Est. Program Cost	\$8,993,091
Contingency Budget	\$100,000
Est. Project Costs	\$9,093,091



- YR014200**
- Project Interceptor Line
 - Project Interceptor Point
 - Project Location Point
 - Project Area
- Legend**
- CIP Interceptor Point
 - CIP Pump Station Point
 - CIP Interceptor Line
 - CIP Abandonment
 - CIP Project Area
 - HRSD Interceptor Force Main
 - HRSD Interceptor Gravity Main
 - HRSD Treatment Plant
 - HRSD Pressure Reducing Station
 - HRSD Pump Station

0 500 1,000 2,000 3,000 4,000 Feet

YR014200

**LaSalle Avenue Boat Harbor to York River
Interconnect Force Main**



CIP Location





LaSalle Avenue Boat Harbor to York River Interconnect Force Main

PR_YR014200

System: York River
Type: Pipelines

Driver Category: Capacity Improvements
Project Phase: PER
Regulatory: None

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35
\$16,943	\$129	\$0	\$0	\$605	\$1,048	\$9,094	\$6,065	\$3	\$0	\$0	\$0

PROJECT DESCRIPTION

This project will involve the study, design and construction of 10,000 linear feet (LF) of 30-inch Interceptor Force Main (IFM) from the intersection of LaSalle Avenue and Victoria Boulevard to the intersection of LaSalle Avenue and Mercury Boulevard. A gravity interconnect will be installed between this new force main (FM) and NG-142 Ivy Home Shell Road Sewer Extension Division I and an interconnect between the proposed FM and the existing NF-77 LaSalle Avenue Sanitary Sewer IFM will allow for system flexibility.

PROJECT JUSTIFICATION

This newly proposed force main interconnect is needed to shift peak flows currently in the Boat Harbor Treatment Plant service area by diverting these flows through the Coliseum Pressure Reducing Station (PRS). With the scheduled future shutdown of the Boat Harbor Treatment Plant, this project will maximize the wet weather capabilities at York River Treatment Plant (YRTP) while minimizing the peak flows within the Boat Harbor system. This project, along with newly proposed storage tanks at Coliseum PRS, will allow for flows from the Bridge Street and Victoria Boulevard Pump Station service areas to be diverted north through the Coliseum PRS.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Ted Denny
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	03/26/2020
PER	12/02/2022
Design Delay	04/02/2025
Design	01/01/2028
Bid Delay	05/01/2029
PreConstruction	05/01/2029
Construction	07/01/2029
Closeout	03/01/2031

COST ESTIMATE

Cost Estimate Class:	Class 4 (-15% to +50%)
PrePlanning	\$1,454
PER	\$125,580
Design	\$1,615,000
PreConstruction	\$40,000
Construction	\$15,156,000
Closeout	\$5,100
Est. Program Cost	\$16,943,134
Contingency Budget	\$2,692,000
Est. Project Costs	\$19,635,134



YR014700

- Project Interceptor Line
- Project Interceptor Point
- Project Location Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- HRSD Treatment Plant
- HRSD Pressure Reducing Station
- HRSD Pump Station

0 25 50 100 150 200 Feet

YR014700

Coliseum PRS Off-Line Storage Tank Odor Control Upgrades

N
W E
S

CIP Location

York



System: York River

Type: Offline Storage

Driver Category: Performance Upgrades

Project Phase: Construction

Regulatory: None

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35
\$575	\$570	\$5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

PROJECT DESCRIPTION

The project will include the design and construction of an access platform and jib crane for the existing carbon scrubber systems.

PROJECT JUSTIFICATION

The platform and jib crane will provide a much needed improvement to safety and access of the existing carbon units, both for carbon change out operations and for maintenance inspections.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Ann Copeland
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	
PER	
Design Delay	
Design	05/23/2022
Bid Delay	11/08/2024
PreConstruction	11/08/2024
Construction	12/01/2024
Closeout	07/01/2025

COST ESTIMATE

Cost Estimate Class:	Class 1 (-3% to +15%)
PrePlanning	\$0
PER	\$39,600
Design	\$114,451
PreConstruction	\$10,185
Construction	\$406,000
Closeout	\$5,000
Est. Program Cost	\$575,236
Contingency Budget	\$60,800
Est. Project Costs	\$636,036



YR014900

-  Project Interceptor Line
-  Project Interceptor Point
-  Project Location Point
-  Project Area

Legend

-  CIP Interceptor Point
-  CIP Pump Station Point
-  CIP Interceptor Line
-  CIP Abandonment
-  CIP Project Area
-  HRSD Interceptor Force Main
-  HRSD Interceptor Gravity Main
-  HRSD Treatment Plant
-  HRSD Pressure Reducing Station
-  HRSD Pump Station

0 25 50 100 150 200 Feet

YR014900

York River DEMON Upgrades



CIP Location



System: York River
Type: Wastewater Treatment

Driver Category: Performance Upgrades
Project Phase: Construction
Regulatory: None

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35
\$551	\$328	\$223	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

PROJECT DESCRIPTION

Currently, the DEMON process is a sequencing batch reactor with anammox granules retained in the system with a screen and partial nitrification occurring in the mixed liquor. The goal of this project is to incorporate biofilm carriers for anammox to increase process reliability and stability. HRSD will be evaluating a fixed media option vs moving media in a full-scale demonstration at James River Treatment Plant (JRTP). If fixed-film is successful at JRTP, it would be the preferred option for the York River Treatment Plant DEMON, otherwise the fall back option will be moving media.

PROJECT JUSTIFICATION

The goal is to improve reliability and stability of the process by making it more resistant to upsets from high influent Total Suspended Solids (TSS) by switching from a hybrid granular/suspended growth process to an attached growth process. Currently, there are frequent upsets from influent TSS that cause temporary shutdowns and sometimes restarts which require a significant amount of operator time and attention. When DEMON is offline, the nitrogen loading is increased on the plant which uses more aeration, alkalinity, and methanol.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

Contacts-Requesting Dept: Operations-Treatment
Contacts-Dept Contacts: Mike Parsons
Contacts-Managing Dept: Operations-Treatment

PROPOSED SCHEDULE START DATE

PrePlanning	03/01/2023
PER	03/01/2023
Design Delay	03/01/2023
Design	03/01/2023
Bid Delay	03/01/2023
PreConstruction	03/01/2023
Construction	03/01/2023
Closeout	01/02/2026

COST ESTIMATE

Cost Estimate Class:	Class 1 (-3% to +15%)
PrePlanning	\$0
PER	\$0
Design	\$0
PreConstruction	\$0
Construction	\$551,200
Closeout	\$0
Est. Program Cost	\$551,200
Contingency Budget	\$0
Est. Project Costs	\$551,200



York River Treatment Plant Switchgear and Motor Control Center Replacements

PR_YR015000

System: York River
Type: Electrical

Driver Category: Aging Infrastructure/Rehabilitation
Project Phase: Proposed
Regulatory: None

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35
\$14,040	\$0	\$1,525	\$1,620	\$1,469	\$1,469	\$1,469	\$1,469	\$1,469	\$1,469	\$1,469	\$612

PROJECT DESCRIPTION

This project is to replace twelve (12) motor control centers (MCC's). The MCC's were installed in the early 1980's and feed the Digester Building, DAF (Dissolved Activated Flotation) Building, Final Effluent Pump Station, Primary Solids Building, Administration Operations Building, and Odor Control Building. To extend the life of the new Primary MCC and remove the MCC from a harsh environment, the MCC will be relocated from the basement to a prefabricated electrical room that will be erected above ground. In addition, this project will replace 4160V medium voltage switchgear located in the administration building. The new switchgear lineup will provide remote racking and modernize the protective relaying by using solid state relays versus induction disc relays.

PROJECT JUSTIFICATION

This project will replace vintage MCC's that have reached the end of their useful life. The replacement parts are not readily available. The replacement of the MCC's will improve reliability and avert any disruptions to the plant processes. In addition, this project will reduce hazards to employees associated with arc flash.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

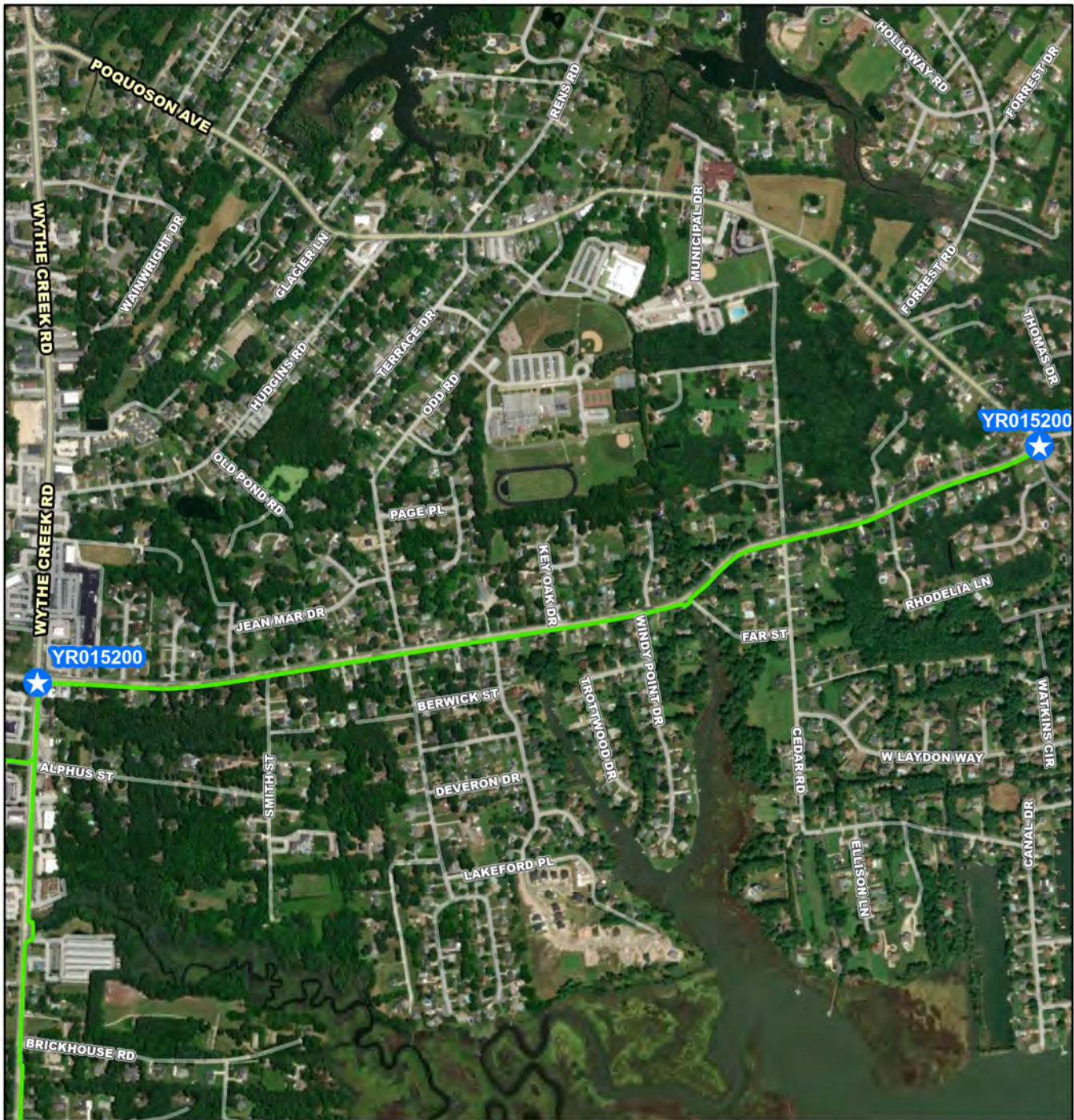
Contacts-Requesting Dept: Operations-E&I
Contacts-Dept Contacts: Donald Jennings
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	01/01/2025
PER	08/01/2025
Design Delay	02/01/2026
Design	03/01/2026
Bid Delay	09/01/2026
PreConstruction	10/01/2026
Construction	12/01/2026
Closeout	12/01/2034

COST ESTIMATE

Cost Estimate Class:	Class 5 (-20% to +100%)
PrePlanning	\$0
PER	\$0
Design	\$2,288,000
PreConstruction	\$0
Construction	\$11,752,000
Closeout	\$0
Est. Program Cost	\$14,040,000
Contingency Budget	\$1,404,000
Est. Project Costs	\$15,444,000



YR015200

- Project Interceptor Line
- Project Interceptor Point
- Project Location Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- HRSD Treatment Plant
- HRSD Pressure Reducing Station
- HRSD Pump Station

0 360 720 1,440 2,160 2,880 Feet

YR015200

Bethel-Poquoson and Route 171 Victory Blvd Interceptor Force Main Relocation

CIP Location



System: York River
Type: Pipelines

Driver Category: Aging Infrastructure/Rehabilitation
Project Phase: Proposed
Regulatory: None

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35
\$4,168	\$0	\$0	\$0	\$0	\$0	\$0	\$390	\$423	\$2,233	\$1,122	\$0

PROJECT DESCRIPTION

This project is to design and construct a new force main to replace portions of NF-025 & NF-026. The project will include the abandonment of 1,600 linear feet (LF) of 18-inch and 600 LF of 20-inch reinforced concrete cylinder pipe. This scope also consists of replacing two (2) valve complexes, one at Wythe Creek Road and Little Florida Avenue and the other at the intersection of Little Florida Road and Poquoson Avenue.

PROJECT JUSTIFICATION

NF-025 & NF-026 were placed into service in 1970. Both force mains have experienced corrosion-related failures. In 1986, NF-026 experienced its failure, and the pipe failed due to a corrosive attack. In 1997, NF-025 experienced a corrosion-related failure at an unvented high spot. Along with corrosion-related failures, multiple valves on both force mains have failed. Valve YR3017-2, located at Poquoson Avenue and Little Florida intersection, has failed in the open position and leaks if operated. The Wythe Creek Road and Little Florida Avenue valve complex has several valves with operational issues. Valve YR3012-1 failed in the open position, and leaks if operated. Valve YR3012-2 has failed in the open position and is considered inoperable (frozen). In addition to the information above, the force main and valve locations provide operational and access issues. Any failures on this line would create serious impact to residents and emergency services.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Michael Johnson
Contacts-Managing Dept: Operations-Interceptors

PROPOSED SCHEDULE START DATE

PrePlanning	07/01/2030
PER	09/01/2030
Design Delay	02/01/2031
Design	02/01/2031
Bid Delay	04/01/2032
PreConstruction	04/01/2032
Construction	07/01/2032
Closeout	01/01/2034

COST ESTIMATE

Cost Estimate Class:	Class 10
PrePlanning	\$0
PER	\$183,000
Design	\$580,000
PreConstruction	\$50,000
Construction	\$3,350,000
Closeout	\$5,000
Est. Program Cost	\$4,168,000
Contingency Budget	\$822,600
Est. Project Costs	\$4,990,600



- YR015300**
- Project Interceptor Line
 - Project Interceptor Point
 - Project Location Point
 - Project Area
- Legend**
- CIP Interceptor Point
 - CIP Pump Station Point
 - CIP Interceptor Line
 - CIP Abandonment
 - CIP Project Area
 - HRSD Interceptor Force Main
 - HRSD Interceptor Gravity Main
 - HRSD Treatment Plant
 - HRSD Pressure Reducing Station
 - HRSD Pump Station



System: York River
Type: Pipelines

Driver Category: Aging Infrastructure/Rehabilitation
Project Phase: Proposed
Regulatory: None

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35
\$7,150	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$925	\$2,025	\$4,200	\$0

PROJECT DESCRIPTION

This project is to design and construct a new force main to relocate a portion of NF-010 and NF-011. Along with the segmental relocations, this project will remove and replace several valves that have failed and are on the influent force main to the York River Treatment Plant.

PROJECT JUSTIFICATION

The segmental replacement of NF-010 is to remove the force main installed in the 1970s. The location of the force main presents significant safety risks when performing maintenance due to its placement within a busy traffic lane. Maintenance records for the valves associated with this project indicate several failed valves. In September of 2024, valve YR1005-1 began to leak while operations staff were performing preventative maintenance activities; the estimated leak rate was 10 gallons per minute, and operations staff were able to divert flows and complete the repair to the valve and stop the leak. All flow entering the YRTP passes through this valve, and there is no redundant downstream valve. This valve would be operated if a catastrophic failure occurred at the York River Treatment Plant and flows needed to be diverted to the other plants. Given the critical role of these valves within the interceptor system, it is recommended that they be removed and replaced to improve both safety and system reliability.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Michael Johnson
Contacts-Managing Dept: Operations-Interceptors

PROPOSED SCHEDULE START DATE

PrePlanning	07/01/2031
PER	07/01/2031
Design Delay	01/01/2032
Design	01/01/2032
Bid Delay	01/01/2033
PreConstruction	01/01/2033
Construction	04/01/2033
Closeout	04/01/2034

COST ESTIMATE

Cost Estimate Class:	Class 10
PrePlanning	\$0
PER	\$300,000
Design	\$1,250,000
PreConstruction	\$0
Construction	\$5,600,000
Closeout	\$0
Est. Program Cost	\$7,150,000
Contingency Budget	\$1,120,000
Est. Project Costs	\$8,270,000



YR015400

-  Project Interceptor Line
-  Project Interceptor Point
-  Project Location Point
-  Project Area

Legend

-  CIP Interceptor Point
-  CIP Pump Station Point
-  CIP Interceptor Line
-  CIP Abandonment
-  CIP Project Area
-  HRSD Interceptor Force Main
-  HRSD Interceptor Gravity Main
-  HRSD Treatment Plant
-  HRSD Pressure Reducing Station
-  HRSD Pump Station

0 25 50 100 150 200 Feet

YR015400

York River Treatment Plant Fire Suppression System Upgrades



CIP Location





York River Treatment Plant Fire Suppression System
Upgrades

PR_YR015400

System: York River
Type: Wastewater Treatment

Driver Category: Safety Compliance
Project Phase: Proposed
Regulatory: None

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35
\$3,580	\$0	\$1,602	\$1,971	\$7	\$0	\$0	\$0	\$0	\$0	\$0	\$0

PROJECT DESCRIPTION

This project will address the replacement or upgrades of the fire suppression system at the York River Treatment Plant methanol facility. Currently, the fire suppression system at this plant's methanol facility utilizes an Alcohol Resistant Aqueous Film Forming Foam (AR-AFFF) that contains Perfluoroalkyl and Polyfluoroalkyl (PFAS). Refilling the existing extinguishers with AR-AFFF will no longer be permitted due to the environmental and health concerns associated with PFAS. The new or upgraded systems will utilize a non-PFAS fluorine free foam to extinguish fires.

PROJECT JUSTIFICATION

The current methanol fire suppression systems use AR-AFFF which contains PFAS. AR-AFFF foam is being phased out due to the Federal Forever Chemical Regulation Accountability Act of 2024. If the fire suppression systems is discharged the existing system cannot be re-charged. In the past, some of these fire suppression systems have experienced false alarms and equipment malfunctions causing activation of the AR-AFFF.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

Contacts-Requesting Dept: Operations-Treatment
Contacts-Dept Contacts: Charles Bott
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	06/01/2025
PER	06/01/2025
Design Delay	08/01/2025
Design	08/01/2025
Bid Delay	12/01/2025
PreConstruction	12/01/2025
Construction	03/01/2026
Closeout	12/01/2026

COST ESTIMATE

Cost Estimate Class: Class 5 (-20% to +100%)	
PrePlanning	\$0
PER	\$0
Design	\$0
PreConstruction	\$32,400
Construction	\$3,531,600
Closeout	\$16,200
Est. Program Cost	\$3,580,200
Contingency Budget	\$895,050
Est. Project Costs	\$4,475,250