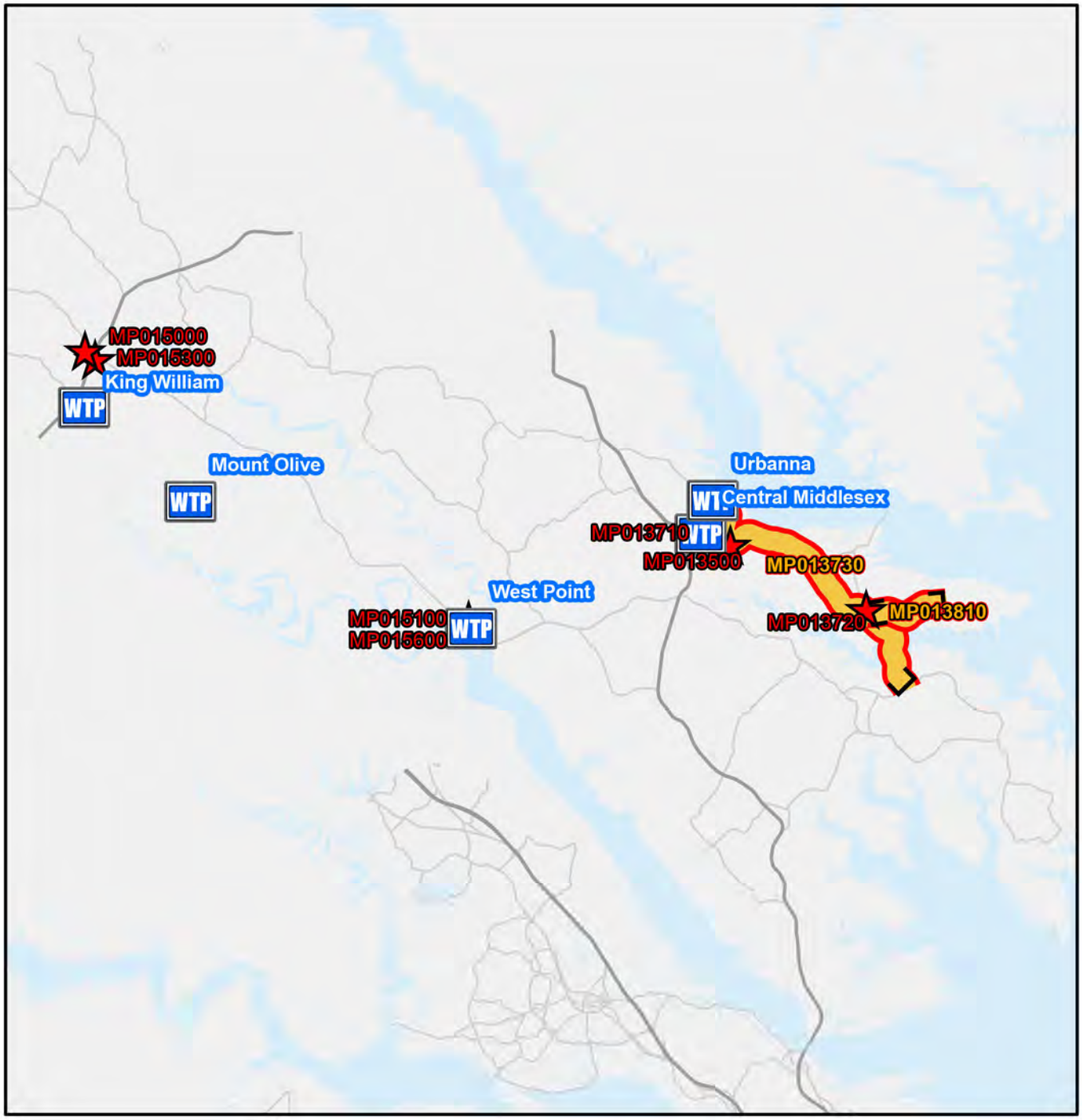
Middle Peninsula Treatment Plants

Photo Credit: J Sabo



Legend

- WTP — Middle Peninsula Treatment Plant Point TP
- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- Treatment Plant Service Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP — HRSD Treatment Plant
- PRS — HRSD Pressure Reducing Station
- PS — HRSD Pump Station

0 10,000 20,000 40,000 60,000 80,000 Feet

Middle Peninsula Treatment Plant Service Area CIP Projects

Treatment Plant Projects

MP013300
MP015500
MP015610
MP015700
MP015800

HRSD

N

CIP Location

Service Area

Middle Peninsula Interceptor Systems PS Control and SCADA Upgrades/Enhancements

PR_MP011700

System: Mid-Peninsula
Type: Software and Technology

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

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to Previous Year	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
$2,512	$2,481	$11	$11	$8	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project will include: An extension of the North Shore SCADA system to include the Middle Peninsula sites; pumping station improvements at all Middle Peninsula sites; an extension of the HRSD SCADA WAN to include the Middle Peninsula; upgraded remote site telemetry communications; and construction phase services. During the preliminary design phase of the Interceptor System SCADA project, the QST looked to expand the SCADA final design to the Middle Peninsula (MP). The SCADA Preliminary Engineering Report gave the costs for expansion to the MP at $3.3 million. This CIP is for the construction portion of this project.
The design was included with the Interceptor Systems Pump Station Control and SCADA Upgrades and Enhancements (GN012800).

PROJECT JUSTIFICATION

There are multiple benefits to expanding the SCADA project to encompass the Middle Peninsula: Future trends for small communities appear to be decentralized/distributed wastewater treatment systems that will require SCADA for remote diagnosis and operational control; as time goes on, the cost of personnel and the cost of transportation will drive HRSD towards more supervisory control at both the treatment plants and pump stations, starting with the Mathews Transmission Force Main (TFM) pump stations; A major portion of the existing system is obsolete and needs replacement; There are Operational and Maintenance benefits to having the same SCADA system throughout the HRSD system: South Shore, North Shore, and the Middle Peninsula; The WAN microwave ring provides a reliable communication link and the existing communication lines could possibly function as a back-up; and, if the MP is added to the Consent Decree in the future, then the MP SCADA system would be upgraded to handle the reporting requirements.

FUNDING TYPE

Funding Type: Cash

CONTACTS

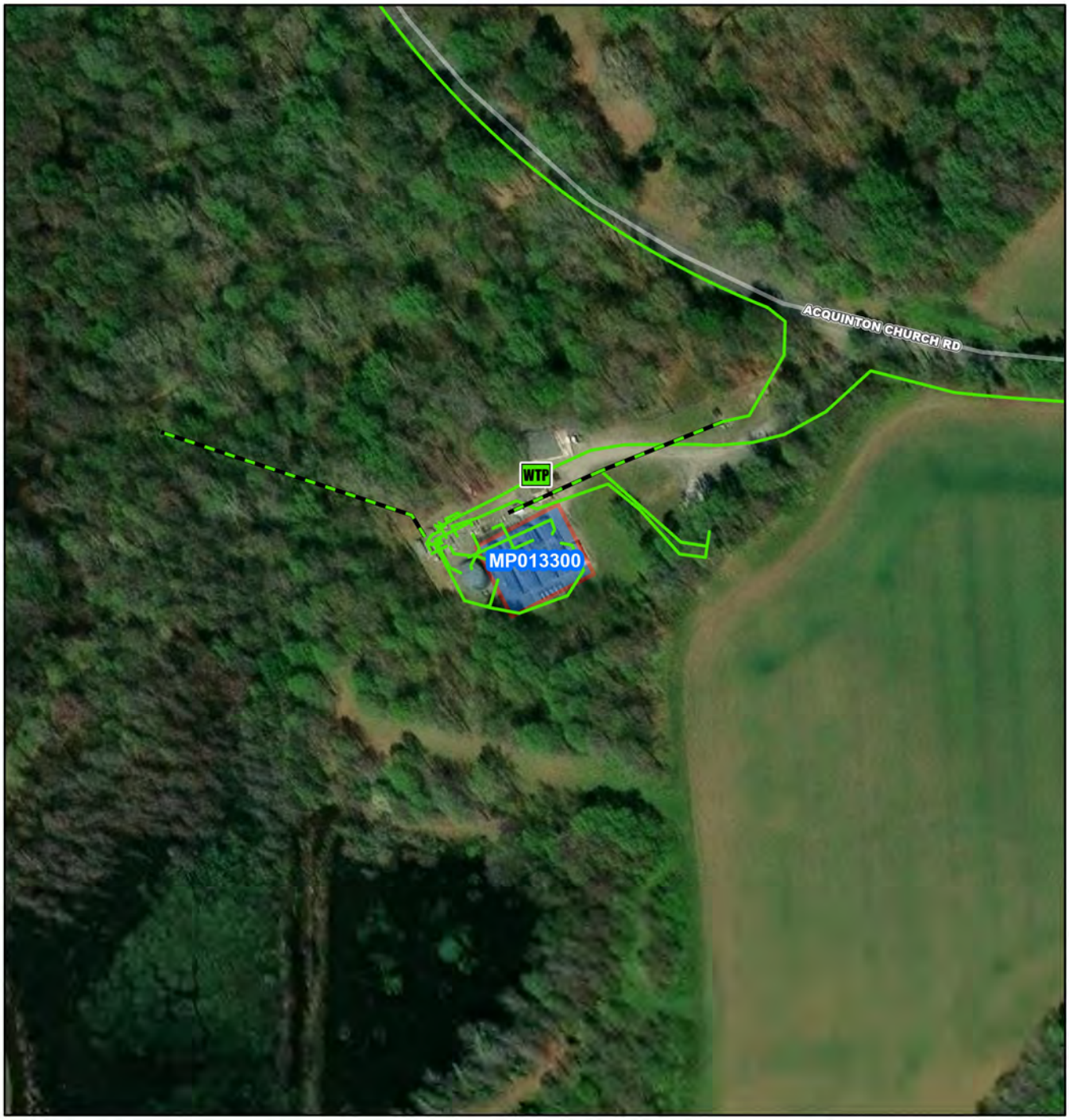
Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Chris Stephan
Contacts-Managing Dept: Operations-Interceptors

PROPOSED SCHEDULE START DATE

PrePlanning	01/01/2009
PER	01/29/2009
Design Delay	03/20/2009
Design	11/27/2009
Bid Delay	05/08/2013
PreConstruction	04/01/2015
Construction	04/01/2015
Closeout	09/04/2023

COST ESTIMATE

Cost Estimate Class:	**Class 1**
PrePlanning	$0
PER	$0
Design	$35,275
PreConstruction	$0
Construction	$2,436,554
Closeout	$40,000
Est. Program Cost	**$2,511,829**
Contingency Budget	$500,000
Est. Project Costs	**$3,011,829**



MP013300

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station 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 50 100 200 300 400 Feet

MP013300

King William Treatment Plant Improvements Phase II

HRSD

N
W E
S

CIP Location

King William Treatment Plant Improvements Phase II

PR_MP013300

System: Mid-Peninsula
Type: Wastewater Treatment

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

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to Previous Year	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
$6,785	$2,231	$4,549	$5	$0	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project is intended to increase capacity for King William from 100,000 gallons per day (GPD) Average Daily Flow (ADF) to a firm capacity of 200,000 GPD ADF. The improvements will be planned to facilitate expansion to 300,000 GPD ADF of capacity.

PROJECT JUSTIFICATION

King William Treatment Plant can currently treat 100,000 GPD ADF. Development in King William County has been accelerating in recent years. New subdivisions are planned and construction has ramped up in existing subdivisions with projected flows exceeding 150,000 GPD in addition to current flow. Buildout of approved subdivisions will require an expansion of capacity beyond 100,000 GPD ADF.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

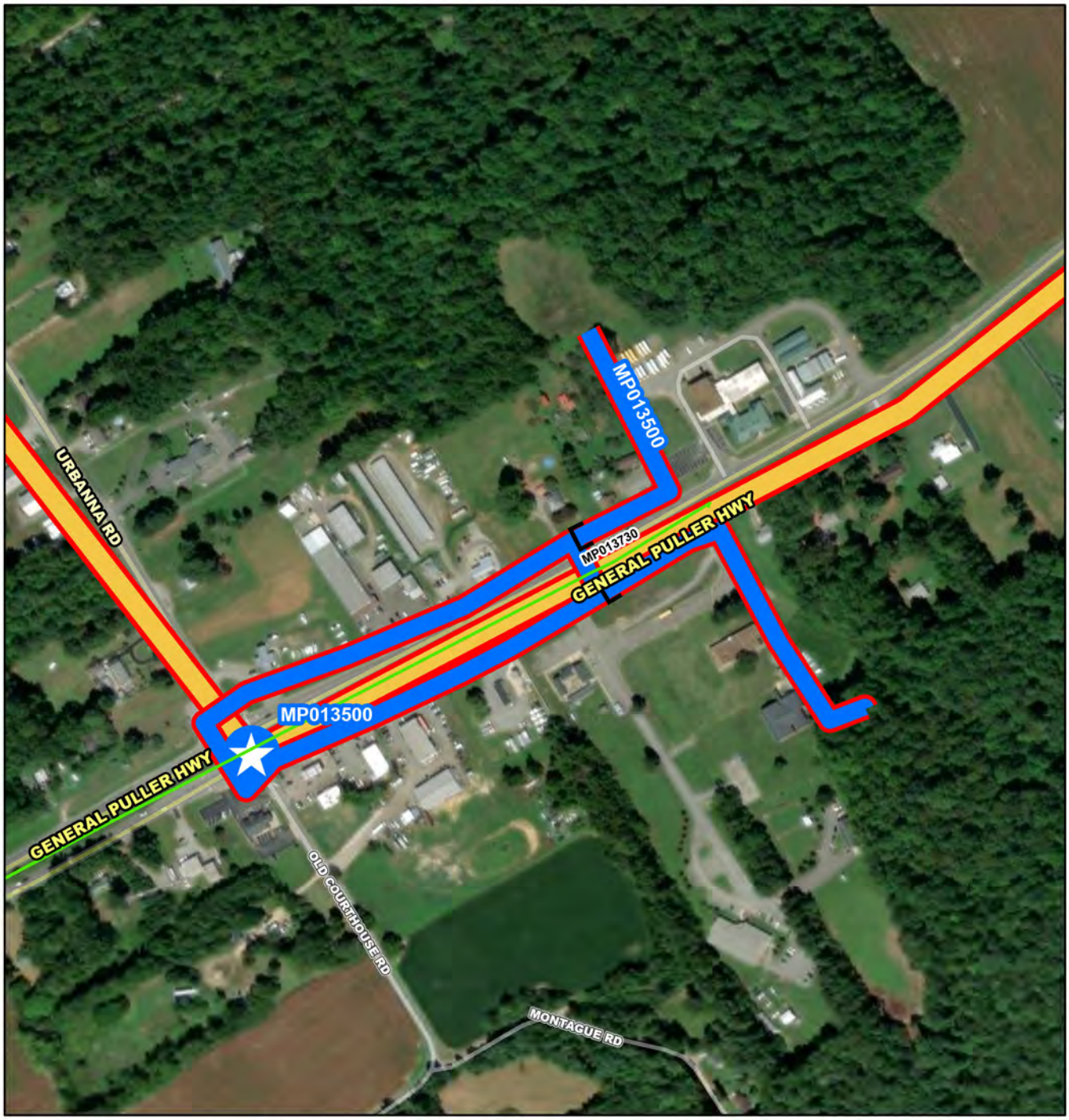
Contacts-Requesting Dept: Operations-Treatment
Contacts-Dept Contacts: Ann Copeland
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	05/03/2021
PER	07/23/2021
Design Delay	09/25/2022
Design	09/25/2022
Bid Delay	04/01/2024
PreConstruction	04/01/2024
Construction	07/01/2024
Closeout	07/01/2025

COST ESTIMATE

Cost Estimate Class:	**Class 3**
PrePlanning	$1,494
PER	$449,354
Design	$1,896,984
PreConstruction	$32,184
Construction	$4,400,000
Closeout	$5,000
Est. Program Cost	**$6,785,016**
Contingency Budget	$440,000
Est. Project Costs	**$7,225,016**



MP013500

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station 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

0 125 250 500 750 1,000 Feet

MP013500

Middlesex Collection System-Cooks Corner

N
W E
S

CIP Location

Middlesex Collection System-Cooks Corner

PR_MP013500

System: Mid-Peninsula
Type: Pipelines

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

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to Previous Year	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
$3,436	$3,435	$1	$0	$0	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project consists of a wastewater collection system to convey wastewater from the Cooks Corner service area to the planned Middlesex Interceptor System. The collection system will consist of approximately 3,200 linear feet of gravity sewer, a submersible pump station, and 1,100 linear feet of force main.

PROJECT JUSTIFICATION

Middlesex County has secured funding for the revitalization of Cooks Corner including a Vibrant Communities Initiative Grant and an Industrial Revitalization Fund Grant. The Industrial Revitalization Fund Grant was awarded in August 2018 and entails completing the revitalization in 18 months. Providing sanitary sewer service to the area is a requirement of these grants. The Memorandum of Agreement between the Hampton Roads Sanitation District and Middlesex County for Cost Sharing of Sewer System Projects outlines that HRSD will manage design and construction of collection system projects on behalf of Middlesex County. The Project Design section of the agreement states All costs incurred by HRSD related to the collection system of any such project shall be reimbursed by the project funds once financing is secured by the County for construction of the collection system. The Construction section of the agreement states that all costs associated with construction, inspection and administration related to the collection system portion of the project shall be included in the project cost and reimbursed to HRSD by the County.

FUNDING TYPE

Funding Type: Cash

CONTACTS

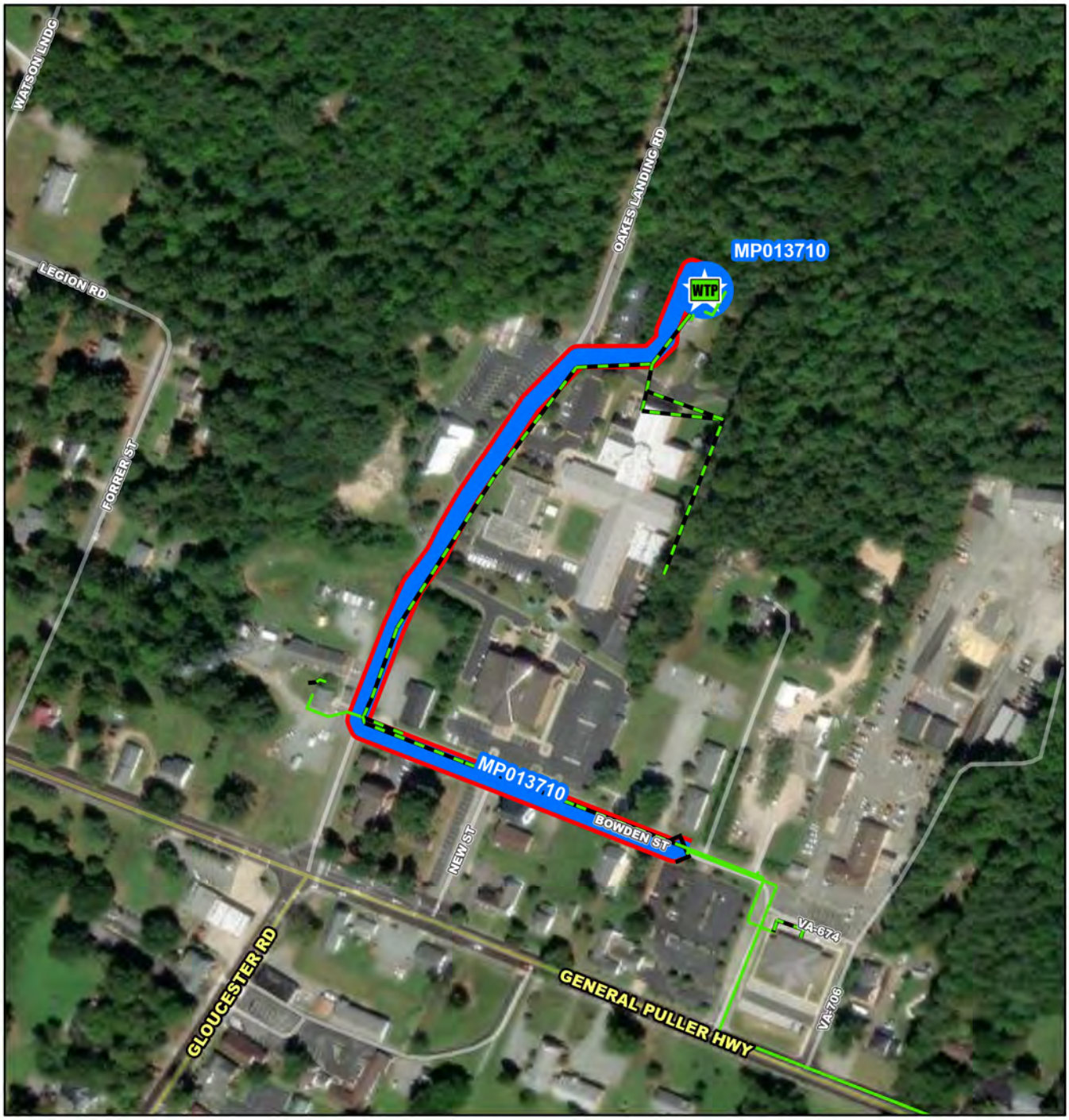
Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Jeremiah Burford
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	
PER	12/02/2018
Design Delay	12/20/2018
Design	03/01/2019
Bid Delay	03/11/2022
PreConstruction	03/11/2022
Construction	06/22/2022
Closeout	07/27/2023

COST ESTIMATE

Cost Estimate Class:	**Class 1**
PrePlanning	$167
PER	$0
Design	$319,478
PreConstruction	$31,627
Construction	$3,079,360
Closeout	$5,000
Est. Program Cost	**$3,435,631**
Contingency Budget	$185,000
Est. Project Costs	**$3,620,631**



MP013710

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station 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 95 190 380 570 760 Feet

N
W E
S

CIP Location

MP013710

Middlesex Interceptor System Program Phase II-Saluda Pump Station

HRSD

Middlesex Interceptor System Program Phase II-Saluda Pump Station

PR_MP013710

System: Mid-Peninsula
Type: Pump Stations

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

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to Previous Year	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
$3,372	$408	$987	$988	$988	$1	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

Middlesex Interceptor System Program Phase II-Urbanna to Mathews Transmission Force Main will be closed out after the PER phase of work has been completed and will create three new CIP projects. Two of the CIP projects will manage the reimbursement between HRSD and the County of Middlesex for the Middlesex Interceptor System Program Phase II-Middlesex Saluda Pump Station (MP013710) and for the Middlesex Interceptor System Program Phase II-Middlesex Hartfield Pump Station (MP013720). The third CIP project for the Middlesex Interceptor System Program Phase II-Transmission Force Main (MP013730) will be managed and funded by HRSD.
This project consists of the construction of a new sanitary sewer pump station in Saluda, Virginia and approximately 1,700 linear feet of 3-inch sewer force main between the proposed Central Middlesex Treatment Plant pump station and the termination point of the Middlesex Interceptor Force Main (IFM) Phase I project and the decommissioning of HRSDs existing Central Middlesex Treatment Plant. The recommended alternative is to construct the new pump station within the limits of an existing parking area adjacent to the treatment plant. After the new pump station is placed into service, the existing treatment plant will be demolished and converted to a parking lot.
The scope of work generally includes the design and permitting of the new pump station, force main, new parking lot, and developing demolition/decommissioning plans for the existing treatment plant. This project will be funded through the Virginia Clean Water Revolving Loan Fund program.

PROJECT JUSTIFICATION

Middlesex County is developing sewer service areas. In order to provide wastewater treatment, HRSD must expand existing Middlesex treatment plants, install decentralized treatment systems, and/or install conveyance from these service areas to existing wastewater treatment facilities. HRSD has two minor (100,000 gallons per day (GPD) or less) wastewater treatment facilities in Middlesex County that are near capacity. In addition, the Town of Urbanna has requested HRSD to eliminate surface water discharges. Currently, HRSD must purchase nutrient credits to discharge into the Rappahannock River basin. HRSD has wastewater treatment capacity at the York River Treatment Plant (YRTP). The life cycle cost of conveying sewage to the YRTP is less than the cost of constructing and operating multiple minor wastewater treatment plants in Middlesex County. A conveyance system to the YRTP service area mitigates the risk and expense of incremental expansions to existing treatment facilities and of more stringent permitting requirements associated with future development in Middlesex County. Consequently, HRSD's strategy is to convey flows from Middlesex to the YRTP.

FUNDING TYPE

Funding Type: Cash

CONTACTS

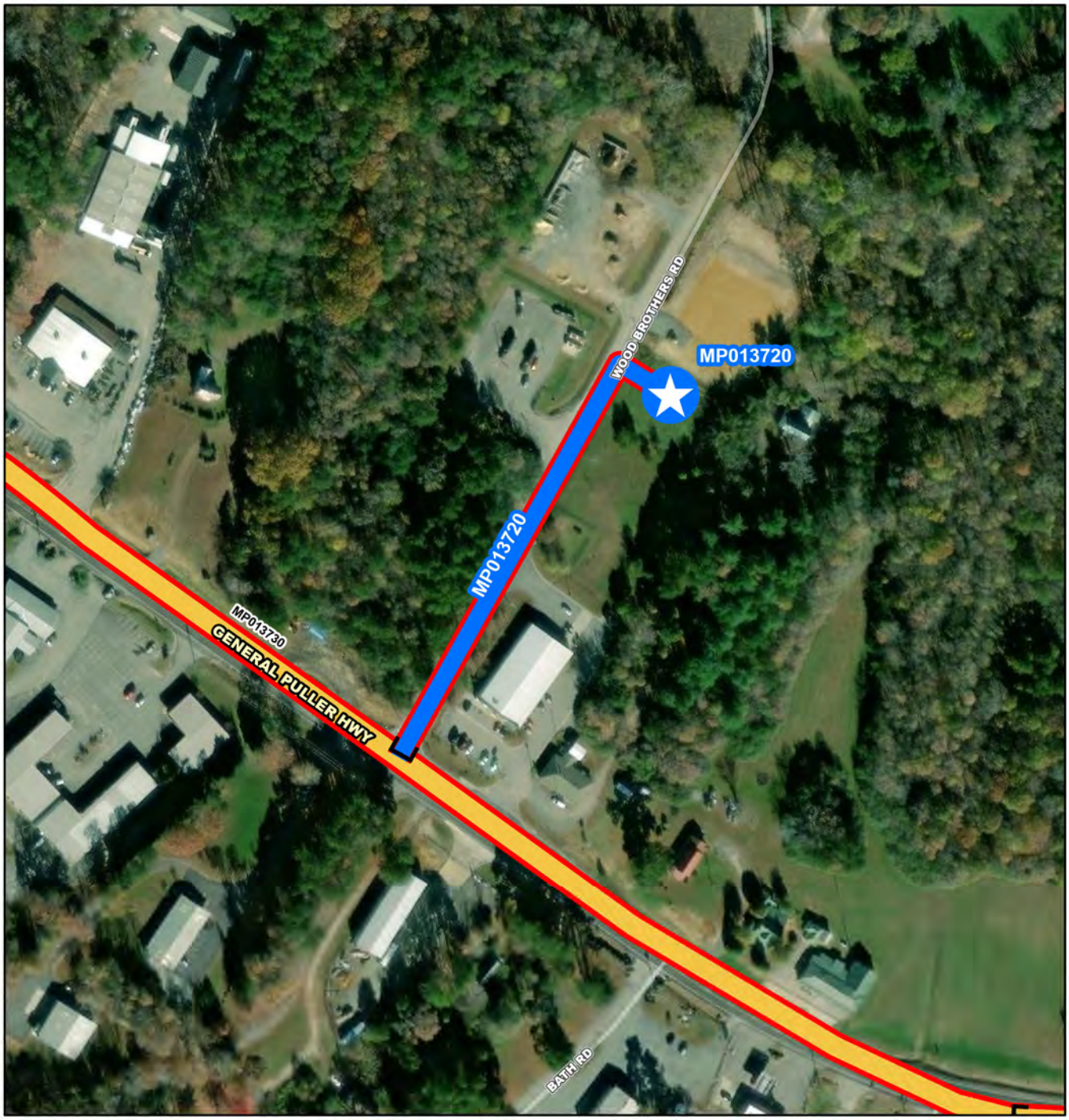
Contacts-Requesting Dept: Operations
Contacts-Dept Contacts: Jeremiah Burford
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	10/01/2019
PER	01/30/2020
Design Delay	01/06/2023
Design	11/24/2020
Bid Delay	04/02/2023
PreConstruction	04/02/2023
Construction	06/01/2024
Closeout	11/01/2024

COST ESTIMATE

Cost Estimate Class:	**Class 1**
PrePlanning	$0
PER	$0
Design	$312,992
PreConstruction	$12,700
Construction	$3,041,031
Closeout	$5,000
Est. Program Cost	**$3,371,723**
Contingency Budget	$414,686
Est. Project Costs	**$3,786,409**



MP013720

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station 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 70 140 280 420 560 Feet

MP013720

Middlesex Interceptor System Program Phase II-Hartfield Pump Station

HRSD

N
W E
S

CIP Location

Middlesex Interceptor System Program Phase II-Hartfield Pump Station

PR_MP013720

System: Mid-Peninsula
Type: Pipelines

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

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to Previous Year	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
$7,677	$652	$2,340	$2,342	$2,342	$2	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

Middlesex Interceptor System Program Phase II-Urbanna to Mathews Transmission Force Main (MP013700) will be closed out after the PER phase of work has been completed and three new CIP projects are being created. Two of the CIP projects will manage the reimbursement between HRSD and the County of Middlesex for the Middlesex Interceptor System Program Phase II-Middlesex Saluda Pump Station (MP013710) and for the Middlesex Interceptor System Program Phase II-Middlesex Hartfield Pump Station (MP013720). The third CIP project for the Middlesex Interceptor System Program Phase II-Transmission Force Main (MP013730) will be managed and funded by HRSD.

This project generally consists of the construction of a new sanitary sewer pump station in the Hartfield area and approximately 1,500 linear feet of sewer force main along Wood Brothers Road to convey flow between the pump station and the Middlesex Transmission Force Main in General Puller Highway. This project will be funded through the Virginia Clean Water Revolving Loan Fund program.

PROJECT JUSTIFICATION

Middlesex County is developing sewer service areas. In order to provide wastewater treatment, HRSD must expand existing Middlesex treatment plants, install decentralized treatment systems, and/or install conveyance from these service areas to existing wastewater treatment facilities. HRSD has two minor (100,000 gallons per day (GPD) or less) wastewater treatment facilities in Middlesex County that are near capacity. In addition, the Town of Urbanna has requested HRSD to eliminate surface water discharges. Currently, HRSD must purchase nutrient credits to discharge into the Rappahannock River basin. HRSD has wastewater treatment capacity at the York River Treatment Plant (YRTP). The life cycle cost of conveying sewage to the YRTP is less than the cost of constructing and operating multiple minor wastewater treatment plants in Middlesex County. A conveyance system to the YRTP service area mitigates the risk and expense of incremental expansions to existing treatment facilities and of more stringent permitting requirements associated with future development in Middlesex County. Consequently, HRSDs strategy is to convey flows from Middlesex to the YRTP.

FUNDING TYPE

Funding Type: Cash

CONTACTS

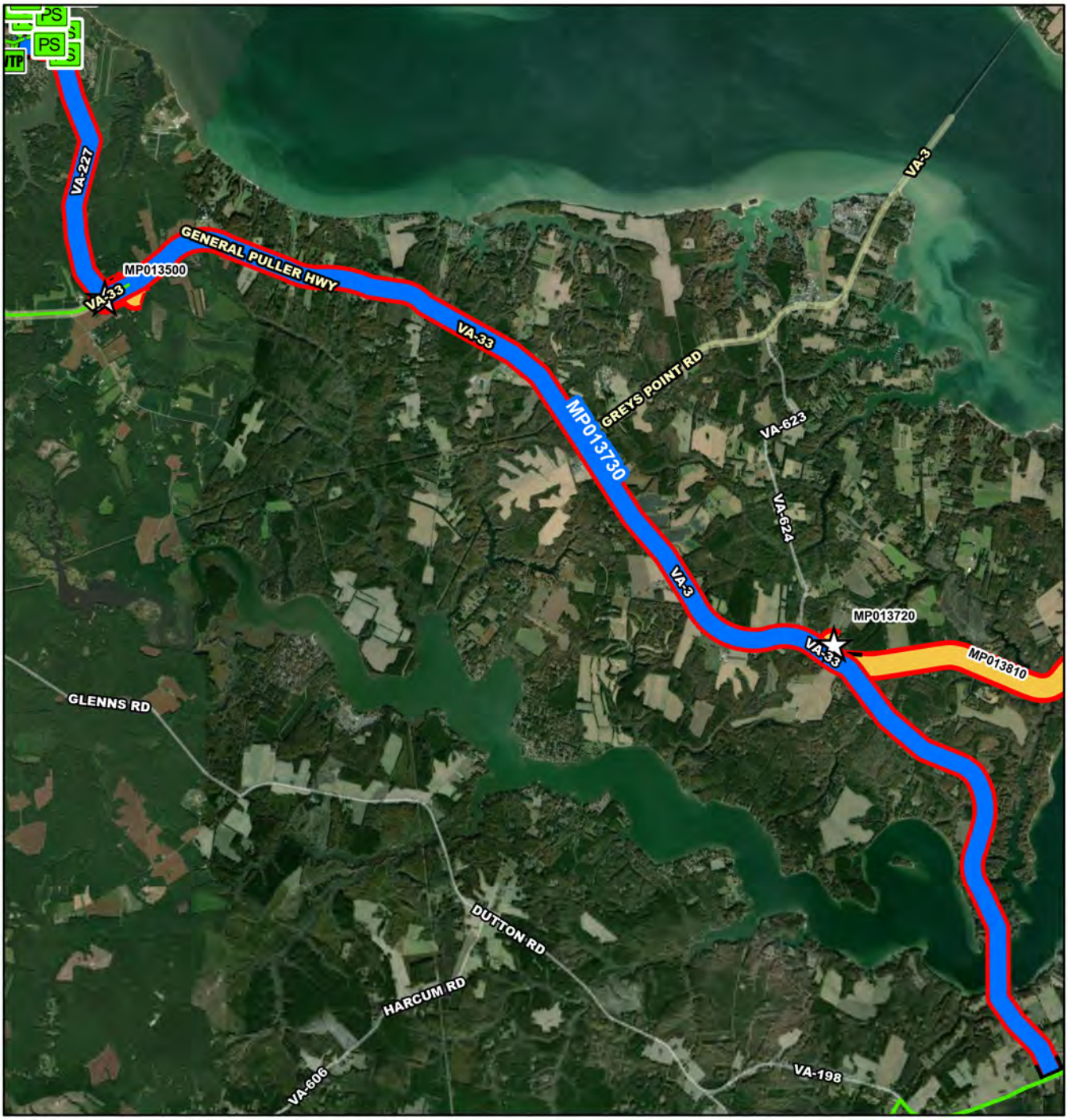
Contacts-Requesting Dept: Operations
Contacts-Dept Contacts: Jeremiah Burford
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	06/30/2019
PER	01/30/2020
Design Delay	12/22/2022
Design	11/01/2020
Bid Delay	04/02/2023
PreConstruction	04/02/2023
Construction	06/01/2024
Closeout	08/08/2025

COST ESTIMATE

Cost Estimate Class:	**Class 1**
PrePlanning	$0
PER	$0
Design	$407,304
PreConstruction	$49,233
Construction	$7,215,095
Closeout	$5,000
Est. Program Cost	**$7,676,632**
Contingency Budget	$983,876
Est. Project Costs	**$8,660,508**



MP013730

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station 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 2,000 4,000 8,000 12,000 16,000 Feet

N
W E
S

CIP Location

MP013730

Middlesex Interceptor System Program Phase II-Transmission Force Main

HRSD

Middlesex Interceptor System Program Phase II-Transmission Force Main

PR_MP013730

System: Mid-Peninsula
Type: Pipelines

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

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to Previous Year	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
$43,824	$12,665	$10,385	$10,386	$10,387	$2	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

Urbanna to Mathews Transmission Force Main (MP013700) will be closed out after the PER phase of work has been completed and three new CIP projects are being created. Two of the CIP projects will manage the reimbursement between HRSD and the County of Middlesex for the Middlesex Interceptor System Program Phase II-Middlesex Saluda Pump Station (MP013710) and for the Middlesex Interceptor System Program Phase II-Middlesex Hartfield Pump Station (MP013720). The third CIP project for the Middlesex Interceptor System Program Phase II-Transmission Force Main (MP013730) will be managed and funded by HRSD.This project includes the construction of a 3.2 miles force main from Urbanna to Cook's Corner in addition to a 13 mile force main along Route 33 in Middlesex County from Cook's Corner to the existing Mathews Force Main. This creates the backbone of the Middlesex Force Main solution and includes a horizontal direction drill under the Piankatank River. This interceptor system will convey wastewater from Middlesex County to the York River Treatment Plant and allow for the decommissioning of the Urbanna Treatment Plant. The system will also include the construction of a new pump station(s). This project will also involve provisions for connection of the Topping service area near the intersection of Route 33 and Route 3 and for connection of the Deltaville service area near Hartfield along General Puller Highway.

PROJECT JUSTIFICATION

Middlesex County is developing sewer service areas. In order to provide wastewater treatment, HRSD must expand existing Middlesex treatment plants, install decentralized treatment systems, and/or install conveyance from these service areas to existing wastewater treatment facilities. HRSD has two minor (100,000 gallon per day (GPD) or less) wastewater treatment facilities in Middlesex County that are near capacity. In addition, the Town of Urbanna has requested HRSD to eliminate surface water discharges. Currently, HRSD must purchase nutrient credits to discharge into the Rappahannock River basin. HRSD has wastewater treatment capacity at the York River Treatment Plant (YRTP). The life cycle cost of conveying sewage to the YRTP is less than the cost of constructing and operating multiple minor wastewater treatment plants in Middlesex County. A conveyance system to the YRTP service area mitigates the risk and expense of incremental expansions to existing treatment facilities and of more stringent permitting requirements associated with future development in Middlesex County. Consequently, HRSDs strategy is to convey flows from Middlesex to the YRTP.

FUNDING TYPE

Funding Type: VCWRLF

CONTACTS

Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Jeremiah Burford
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	10/01/2019
PER	01/30/2020
Design Delay	11/23/2020
Design	11/01/2020
Bid Delay	07/01/2023
PreConstruction	07/01/2023
Construction	09/01/2023
Closeout	10/01/2025

COST ESTIMATE

Cost Estimate Class:	**Class 1**
PrePlanning	$0
PER	$0
Design	$3,947,434
PreConstruction	$63,200
Construction	$39,808,026
Closeout	$5,000
Est. Program Cost	**$43,823,660**
Contingency Budget	$5,428,367
Est. Project Costs	**$49,252,027**

MP013810

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station 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 1,000 2,000 4,000 6,000 8,000 Feet

MP013810

Middlesex Interceptor System Program Phase III (Deltaville)

HRSD

N
W E
S

CIP Location

Middlesex Interceptor System Program Phase III (Deltaville)

PR_MP013810

System: Mid-Peninsula
Type: Pipelines

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

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to Previous Year	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
$6,681	$521	$0	$0	$2,056	$4,093	$10	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project calls for the design and construction of approximately 20,500 linear feet (LF) of a 6-inch arterial HDPE force main interceptor to serve the Deltaville service area in Middlesex County. The HRSD funded portion of the Deltaville interceptor will be approximately 20,500 LF traversing from Twiggs Ferry Road - Stampers Bay Road intersection north to General Puller Highway and terminating at the Parsons Lane intersection. The arterial force main will be connecting to the proposed Middlesex Regional Interceptor System slated to be completed in 2024.

PROJECT JUSTIFICATION

HRSD, in coordination with Middlesex County, developed a sewer master plan to design and construct a regional sewer infrastructure to collect and transmit sewer flows to the York River Treatment Plant for treatment via the existing Mathews force main interceptor system. As part of this effort, the existing Urbanna and Saluda treatment plants will be decommissioned and be replaced with new collection systems and pump stations to convey the flow to the regional force main interceptor. This project is the continuation of expanding the regional interceptor system to transmit flow from the Topping and Deltaville service areas.
As part of the service agreement and cost sharing agreement executed between HRSD and Middlesex County, HRSD will front the capital cost for engineering services, construction and inspection; Middlesex County shall be responsible to reimburse HRSD for the cost of the interceptors which fall within 2-mile radius from the service area limits in conformance with HRSD's Service Area Expansion Policy.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

Contacts-Requesting Dept: Operations
Contacts-Dept Contacts: Jeremiah Burford
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	01/01/2021
PER	01/29/2021
Design Delay	03/17/2023
Design	03/01/2023
Bid Delay	07/01/2024
PreConstruction	07/01/2026
Construction	01/01/2027
Closeout	07/01/2028

COST ESTIMATE

Cost Estimate Class:	**Class 4**
PrePlanning	$0
PER	$78,248
Design	$443,207
PreConstruction	$10,000
Construction	$6,139,387
Closeout	$10,000
Est. Program Cost	**$6,680,842**
Contingency Budget	$1,116,252
Est. Project Costs	**$7,797,094**

Small Communities Rehabilitation Phase IV

PR_MP014700

System: Mid-Peninsula
Type: Pipelines

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

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to Previous Year	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
$2,555	$2,203	$350	$3	$0	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

The project will consist of rehabilitation or replacement of approximately 2,500 linear feet of small diameter gravity main and associated laterals and manholes within the Towns of Urbanna and West Point.

PROJECT JUSTIFICATION

CCTV condition assessment has shown multiple defects within the gravity main in Virginia Street and other select locations in West Point. These defects include materials such as PVC truss pipe and reverse flow conditions that will lead to premature failure. Virginia Street is a primary vehicular and pedestrian corridor for the Town of Urbanna and a failure would cause a major disruption. This project will primarily consist of non-intrusive trenchless rehabilitation. Small-scale point repairs and manhole installations will be utilized to minimize public disruption.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

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

PROPOSED SCHEDULE START DATE

PrePlanning	03/26/2019
PER	07/08/2020
Design Delay	04/22/2021
Design	04/22/2021
Bid Delay	09/20/2022
PreConstruction	09/20/2022
Construction	12/20/2022
Closeout	10/01/2024

COST ESTIMATE

Cost Estimate Class:	**Class 1**
PrePlanning	$0
PER	$45,785
Design	$152,981
PreConstruction	$13,294
Construction	$2,333,000
Closeout	$10,000
Est. Program Cost	**$2,555,060**
Contingency Budget	$100,000
Est. Project Costs	**$2,655,060**

Small Communities Rehabilitation Phase V

PR_MP014800

System: Mid-Peninsula
Type: Pipelines

Driver Category: Risk Mitigation
Project Phase: Design
Regulatory: None

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to Previous Year	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
$1,182	$487	$451	$239	$4	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

The project will consist of raising approximately sixty (60) paved over or buried manholes throughout Small Communities. Replacement of frame and covers and condition assessment of these structures will occur with the work.

PROJECT JUSTIFICATION

The uncovering and raising of the buried and paved over manholes will allow operations to access these structures in order to perform assessment of our infrastructure and to ensure the collection systems are operating as designed.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

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

PROPOSED SCHEDULE START DATE

PrePlanning	07/03/2017
PER	02/01/2022
Design Delay	08/31/2022
Design	09/01/2022
Bid Delay	09/01/2024
PreConstruction	12/01/2024
Construction	02/01/2025
Closeout	12/01/2025

COST ESTIMATE

Cost Estimate Class:	**Class 3**
PrePlanning	$0
PER	$39,753
Design	$658,427
PreConstruction	$6,820
Construction	$466,735
Closeout	$10,000
Est. Program Cost	**$1,181,735**
Contingency Budget	$100,000
Est. Project Costs	**$1,281,735**

MP015000

Project Interceptor Line
Project Interceptor Point
Project Pump Station 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 45 90 180 270 360 Feet

N
W E
S

CIP Location

MP015000

Sharon Road Gravity Sewer Improvements

HRSD

Sharon Road Gravity Sewer Improvements

PR_MP015000

System: Mid-Peninsula
Type: Pipelines

Driver Category: Risk Mitigation
Project Phase: Design
Regulatory: None

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to Previous Year	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
$1,227	$157	$742	$327	$2	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

The project will consist of expanding the gravity collection system approximately 800 linear feet to connect to the existing Commerce Lane Pump Station service area. This project will eliminate the need for and permanently abandon the Sharon Road Pump Station.

PROJECT JUSTIFICATION

The Sharon Road Pump Station is a packaged type of submersible pump station that has been in operation for 20 years and needs rehabilitation.
The station is located on school grounds with no security fence. The extension of the gravity collection system will eliminate the operational need for any pump station on school property.

FUNDING TYPE

Funding Type: Cash

CONTACTS

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

PROPOSED SCHEDULE START DATE

PrePlanning	03/26/2019
PER	07/08/2020
Design Delay	10/21/2021
Design	09/12/2022
Bid Delay	07/01/2024
PreConstruction	07/01/2024
Construction	10/01/2024
Closeout	11/01/2025

COST ESTIMATE

Cost Estimate Class:	**Class 2**
PrePlanning	$0
PER	$26,683
Design	$130,000
PreConstruction	$15,000
Construction	$1,050,000
Closeout	$5,500
Est. Program Cost	**$1,227,183**
Contingency Budget	$100,000
Est. Project Costs	**$1,327,183**

MP015100

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station 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 45 90 180 270 360 Feet

N
W E
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CIP Location

MP015100

West Point Pump Station 4 (Thompson Avenue) Rehabilitation

HRSD

West Point Pump Station 4 (Thompson Avenue) Rehabilitation

PR_MP015100

System: Mid-Peninsula
Type: Pump Stations

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

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to Previous Year	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
$1,899	$1,306	$591	$2	$0	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project consists of the installation of a new, large wet well, influent saddle manhole and rehabilitation of the pump station to include new pumps, controls and metering as well as site beautification.

PROJECT JUSTIFICATION

The station controls and associated appurtenances are original to the pump station as installed in the 1940s and have gone beyond the end of their useful life. The wet well was installed too shallow with the original pump station construction creating continuous surcharging conditions in the upstream collection system. This condition creates system capacity limitations and causes ragging and cavitation conditions at the pump station. This project will allow for the installation of an influent side manhole to be installed on HRSD property.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

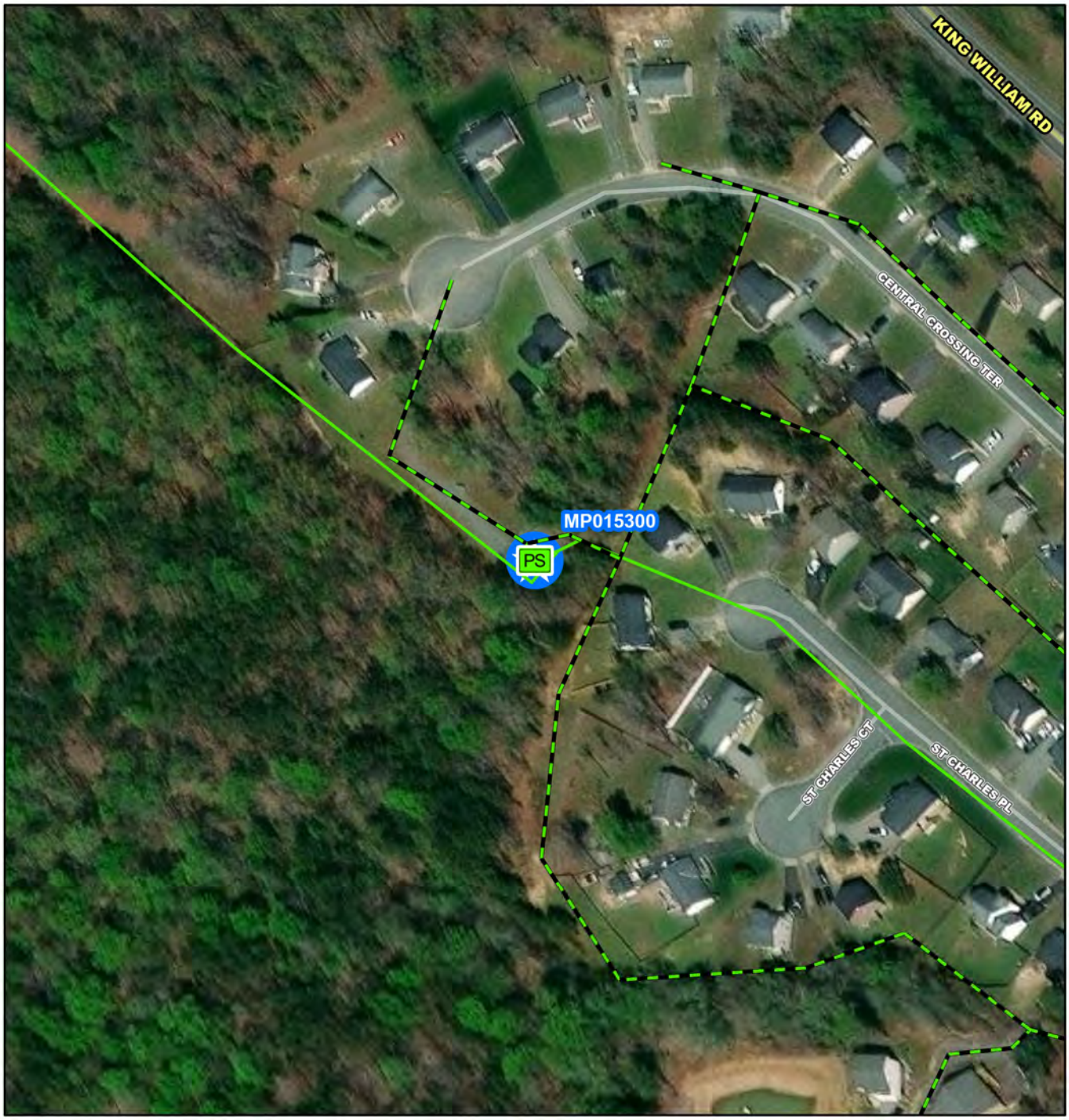
Contacts-Requesting Dept: Operations
Contacts-Dept Contacts: Ted Denny
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	03/26/2019
PER	07/08/2020
Design Delay	06/18/2021
Design	06/18/2021
Bid Delay	09/20/2022
PreConstruction	09/20/2022
Construction	12/20/2022
Closeout	10/01/2024

COST ESTIMATE

Cost Estimate Class:	**Class 1**
PrePlanning	$0
PER	$71,289
Design	$147,431
PreConstruction	$13,490
Construction	$1,662,000
Closeout	$5,000
Est. Program Cost	**$1,899,210**
Contingency Budget	$70,000
Est. Project Costs	**$1,969,210**



MP015300

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station 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 45 90 180 270 360 Feet

N
W E
S

CIP Location

MP015300

King William Central Crossing Pump Station Rehabilitation

HRSD

King William Central Crossing Pump Station Rehabilitation

PR_MP015300

System: Mid-Peninsula
Type: Pump Stations

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

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to Previous Year	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
$2,076	$446	$1,495	$135	$0	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project consists of rehabilitation of the existing Central Crossing pump station to include improvements to the pump system and controls, discharge monitoring, force main upsizing, emergency power supply, site improvements and other ancillary improvements.

PROJECT JUSTIFICATION

Failures have occurred on the pumping rail and connection system as well as the discharge force main with temporary repairs made to both. Additionally, there is no emergency power supply in cases of outages for the station and the current power rack is of timber construction and is also in need of replacement. Currently, operations has no means to isolate the discharge force main from a common pressure pipeline with multiple other pump station connections. There is no emergency bypass connection and no means of monitoring station flows and pressures. This project will correct these deficiencies and bring this facility to current HRSD standards.
King William is also experiencing substantial development growth. This station currently has development projects with master site plans that would exceed the capacity of the station. This project will provide for additional station pumping capacity to allow for future development and growth.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

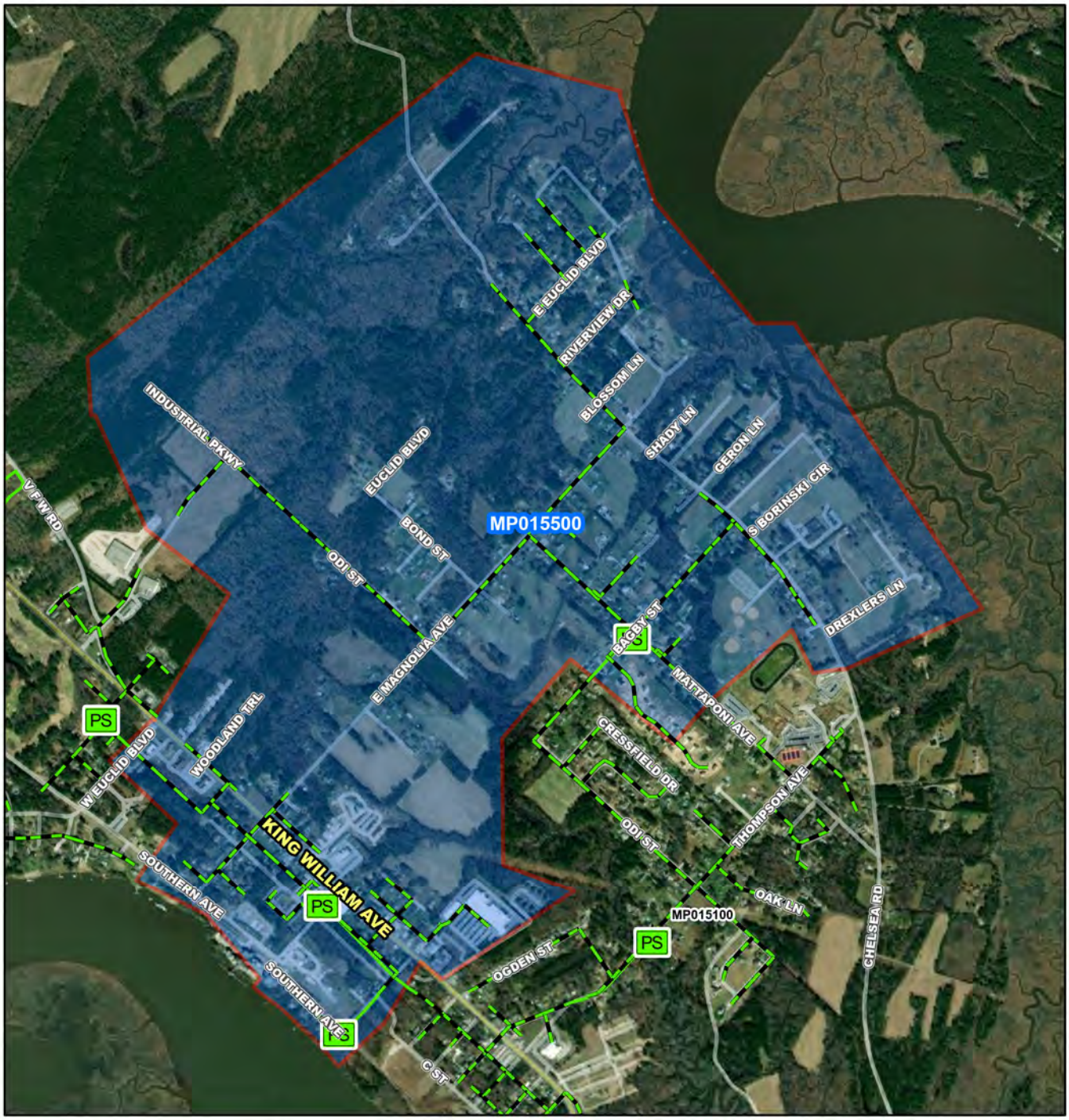
Contacts-Requesting Dept: Operations-Treatment
Contacts-Dept Contacts: Donald Jennings
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	07/03/2017
PER	01/28/2022
Design Delay	09/14/2022
Design	09/01/2022
Bid Delay	04/01/2024
PreConstruction	04/01/2024
Construction	05/01/2024
Closeout	08/01/2025

COST ESTIMATE

Cost Estimate Class:	**Class 1**
PrePlanning	$0
PER	$60,313
Design	$125,649
PreConstruction	$11,202
Construction	$1,868,371
Closeout	$10,000
Est. Program Cost	**$2,075,535**
Contingency Budget	$225,000
Est. Project Costs	**$2,300,535**



MP015500

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station 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

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

N W E S

CIP Location

MP015500

Small Communities Rehabilitation Phase VI

HRSD

Small Communities Rehabilitation Phase VI

PR_MP015500

System: Mid-Peninsula
Type: Pipelines

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

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to Previous Year	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
$3,547	$542	$1,592	$1,409	$4	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project will renew approximately 5,600 linear feet (LF) of gravity pipe and twelve (12) manholes in the service areas of West Point Pump Stations (PS) 5, 8 and 9. These facilities have been identified as large contributors to inflow and infiltration (I&I). Renewal methods include internal point repairs, external point repairs, and trenchless rehabilitation. External Point repairs will consist of dig-and-replace in kind with pipe of equal size. Rehabilitation may include one or more trenchless methods to reinforce existing pipelines with an internally installed liner or other seal to prevent I&I intrusion. Manholes will be lined and rehabilitated.

PROJECT JUSTIFICATION

The West Point Treatment Plant (WPTP) experiences significant increased flows during wet weather events. Since January 2019, the effluent flow monthly average has exceeded the Permitted Design Capacity (0.6 MGD) ten times to date, with 95% of capacity being exceeded for three consecutive months occurring twice in that timeframe. Each of the consecutive occurrences requires a written letter to VDEQ outlying HRSDs plan of action to address these increased flows. This project will continue HRSDs commitment to reducing I&I into the collection system in accordance with that plan of action. Analysis of gravity flow meter data collected from the West Point system was evaluated and identified the PS 5, 8 and 9 service areas as the highest contributors to I&I levels. Hazen and Sawyer completed a Sanitary Sewer Evaluation Survey (SSES) of these areas and identified multiple areas of rehabilitation and/or replacement of the collections system. This project will address the deficiencies identified in this SSES and generate a large reduction of I&I and provide for structural repairs on at-risk infrastructure.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

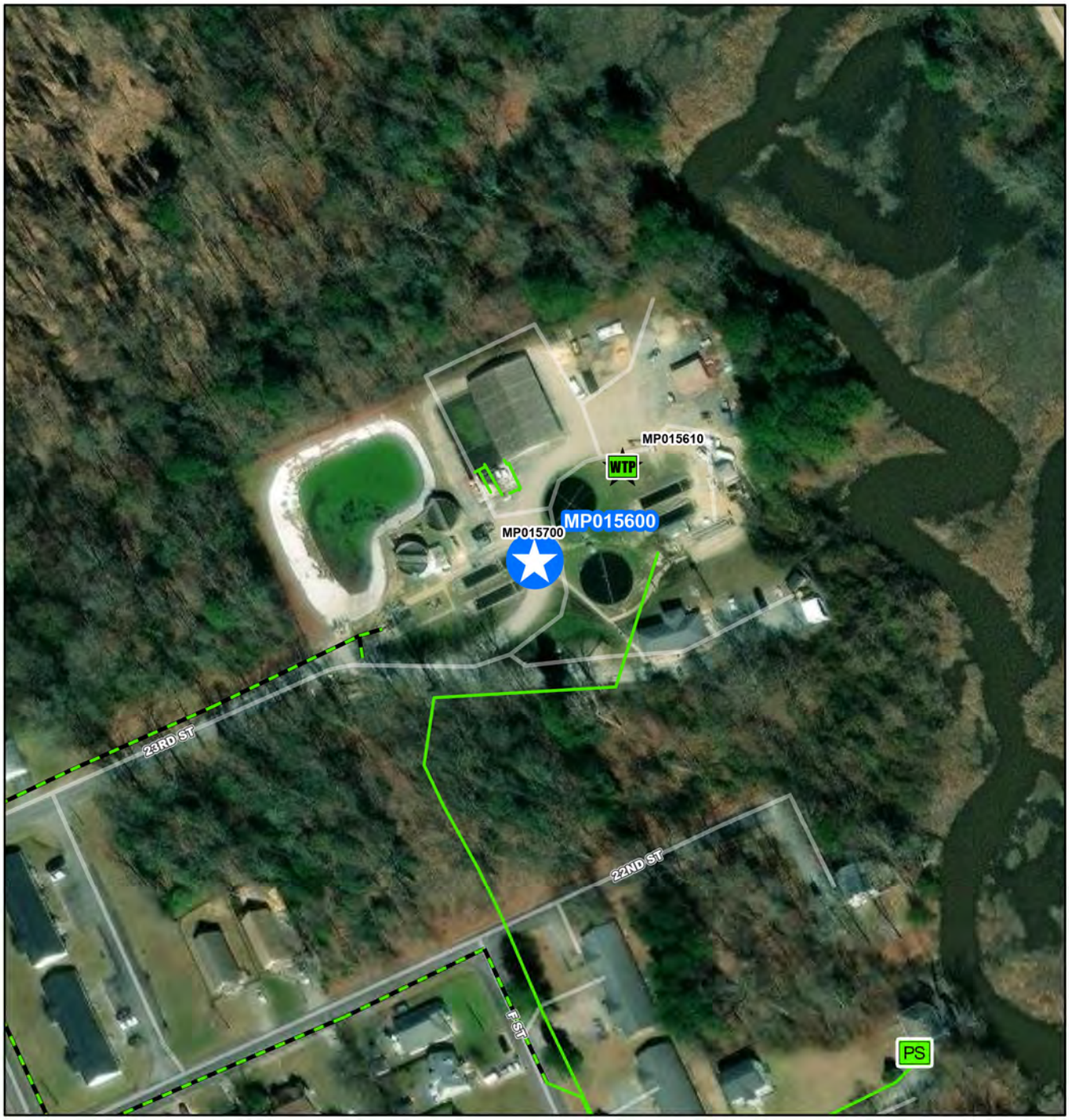
Contacts-Requesting Dept: Operations
Contacts-Dept Contacts: Beatriz Patino
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	07/03/2017
PER	01/28/2022
Design Delay	08/31/2022
Design	09/01/2022
Bid Delay	09/01/2024
PreConstruction	12/01/2024
Construction	02/01/2025
Closeout	12/01/2025

COST ESTIMATE

Cost Estimate Class:	**Class 3**
PrePlanning	$0
PER	$56,621
Design	$664,452
PreConstruction	$9,572
Construction	$2,806,406
Closeout	$10,000
Est. Program Cost	**$3,547,052**
Contingency Budget	$280,000
Est. Project Costs	**$3,827,052**



MP015600

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station 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 45 90 180 270 360 Feet

MP015600

West Point Treatment Plant Final Effluent Pump Station Improvements

HRSD

N
W E
S

CIP Location

West Point Treatment Plant Final Effluent Pump Station Improvements

PR_MP015600

System: Mid-Peninsula
Type: Pump Stations

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

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to Previous Year	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
$3,584	$210	$574	$2,780	$20	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project consists of the rehabilitation of the existing West Point Treatment Plant Effluent Pump Station to include improvements to the pumping system and controls, discharge monitoring and access. The project will replace pump rail systems; rehabilitate and replace internal components of valve vault and emergency pump connection; install metering vault and associated components; upgrade alarms, pump controls and power panel and associated utility rack; and provide access to the station to drive up bypass pumps and equipment as necessary.

PROJECT JUSTIFICATION

The station suffered significant failure of both the mechanical and electrical systems in calendar year 2020. Emergency work was undertaken to make temporary repairs, however permanent repairs and improvements are still required to this critical piece of infrastructure to ensure continued reliability of the treatment plant process.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

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

PROPOSED SCHEDULE START DATE

PrePlanning	07/03/2017
PER	01/12/2022
Design Delay	07/19/2022
Design	10/01/2024
Bid Delay	03/01/2025
PreConstruction	03/01/2025
Construction	06/01/2025
Closeout	07/01/2026

COST ESTIMATE

Cost Estimate Class:	**Class 2**
PrePlanning	$0
PER	$49,812
Design	$461,262
PreConstruction	$40,950
Construction	$3,012,020
Closeout	$20,000
Est. Program Cost	**$3,584,044**
Contingency Budget	$672,326
Est. Project Costs	**$4,256,370**

MP015610

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station 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 45 90 180 270 360 Feet

MP015610

West Point Treatment Plant Generator Installation

HRSD

N
W E
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CIP Location

West Point Treatment Plant Generator Installation

PR_MP015610

System: Mid-Peninsula
Type: Electrical

Driver Category: Risk Mitigation
Project Phase: Pre Construction
Regulatory: None

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to Previous Year	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
$1,130	$0	$517	$612	$1	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project consists of the installation of a new 480 KW generator at the West Point Treatment Plant (WPTP) along with the required site work. This project will be for the construction portion of the project only, as the PER and design phases were conducted under MP015600.

PROJECT JUSTIFICATION

The WPTP currently does not have complete plant backup power. This project will install the equipment necessary to provide backup power, including 480 KW service.
Previously, this work was included under MP015600, however, due to master planning efforts in the middle peninsula, most of that project has been delayed. The plant expressed urgency in continuing on with the generator portion of the project.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

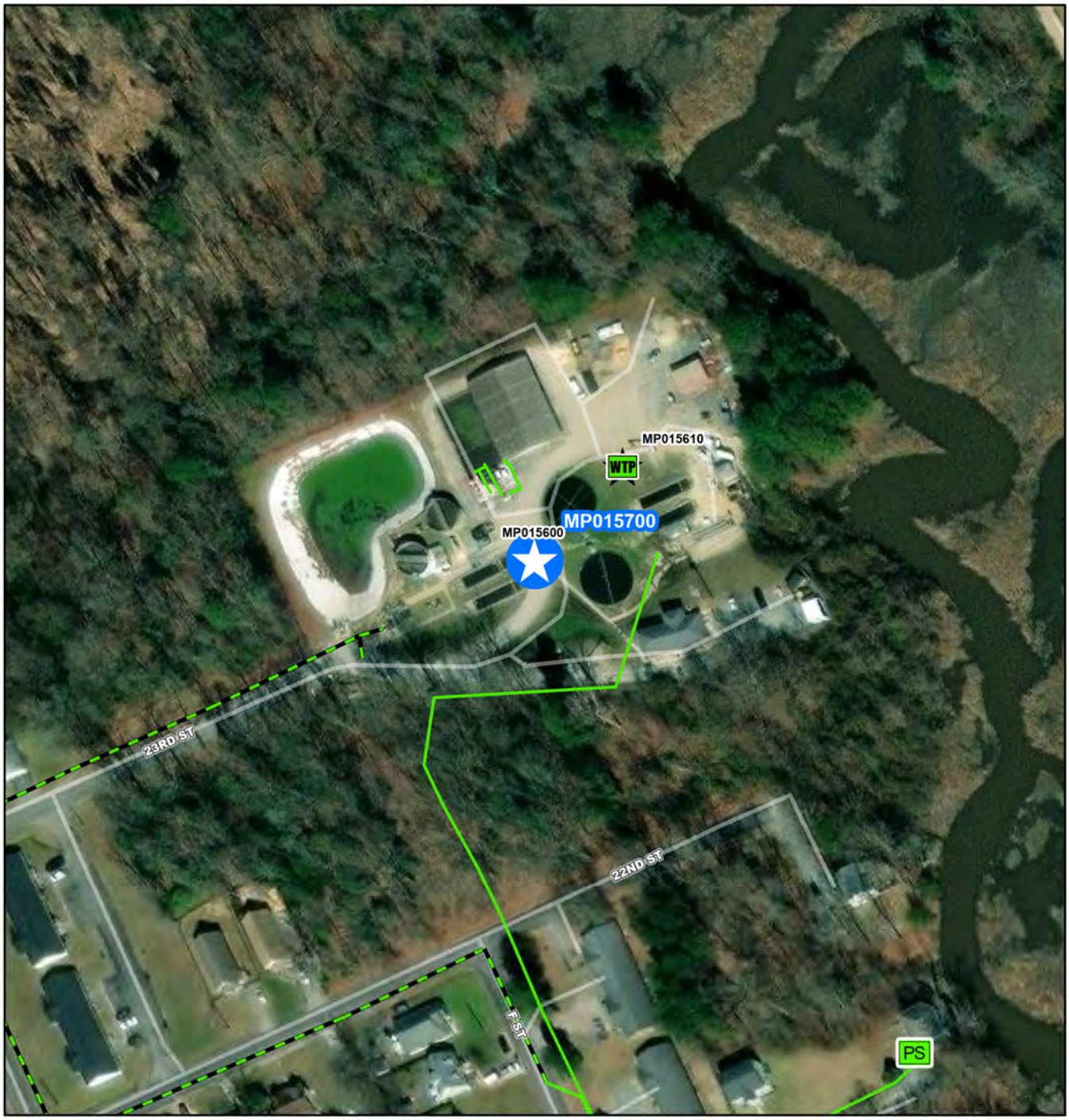
Contacts-Requesting Dept:
Contacts-Dept Contacts: Angela Weatherhead
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	
PER	
Design Delay	
Design	
Bid Delay	
PreConstruction	
Construction	01/01/2025
Closeout	01/01/2026

COST ESTIMATE

Cost Estimate Class:	**Class 3**
PrePlanning	$0
PER	$0
Design	$0
PreConstruction	$0
Construction	$1,120,000
Closeout	$10,000
Est. Program Cost	**$1,130,000**
Contingency Budget	$250,000
Est. Project Costs	**$1,380,000**



MP015700

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station 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 45 90 180 270 360 Feet

MP015700

West Point Treatment Plant Secondary Clarifier Improvements

HRSD

N
W E
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CIP Location

West Point Treatment Plant Secondary Clarifier Improvements

PR_MP015700

System: Mid-Peninsula
Type: Wastewater Treatment

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

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to Previous Year	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
$3,332	$157	$385	$2,780	$10	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project consists of the rehabilitation of the existing Secondary Clarifier System at the West Point Treatment Plant to include improvements to the waste pumping system and controls; raising the wall height on secondary clarifier #2; replacement of waste valving on both clarifiers; complete replacement of internal components; site improvements and rehabilitation of effluent weirs and skimmer wasting wells.

PROJECT JUSTIFICATION

The Secondary Clarifier system of West Point Treatment Plant has seen significant degradation since original installations in the 1950s and 1970s. Small scale improvement projects have been completed over the lifespan of the system to upgrade and repair various components. Conditional assessment of the system has shown several portions of the clarifiers are in need of repair or replacement in order to continue to treat wastewater effectively and reliably in accordance with the regulated permit. Additionally, the hydraulic profile of the plant flow creates a restriction on secondary clarifier #2, resulting in premature diversion to the plant holding pond. Raising of the clarifier wall will allow increased treatment capacity through the clarifier while drastically reducing the risk of an overflow.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

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

PROPOSED SCHEDULE START DATE

PrePlanning	07/03/2017
PER	01/12/2022
Design Delay	07/19/2022
Design	10/01/2024
Bid Delay	03/01/2025
PreConstruction	03/01/2025
Construction	06/01/2025
Closeout	07/01/2026

COST ESTIMATE

Cost Estimate Class:	**Class 2**
PrePlanning	$0
PER	$52,373
Design	$245,785
PreConstruction	$11,702
Construction	$3,012,020
Closeout	$10,000
Est. Program Cost	**$3,331,880**
Contingency Budget	$672,326
Est. Project Costs	**$4,004,206**

MP015800

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station 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 45 90 180 270 360 Feet

N
W E
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CIP Location

MP015800

King William Main Pump Station Improvements

HRSD

King William Main Pump Station Improvements

PR_MP015800

System: Mid-Peninsula
Type: Pump Stations

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

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to Previous Year	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
$4,748	$268	$302	$2,922	$1,250	$5	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project will provide improvements and/or replacement of the existing King William Main Pump Station (KWMPS) to include hydraulic capacity upgrades, a new metering vault and discharge monitoring, pre-cast power and controls building, replacement of the permanently mounted standby pump or installation of a new generator, new property acquisition and expansion of the existing site and parking area, and possibly a new valve vault.

PROJECT JUSTIFICATION

The KWMPS pumps all flow generated by King William County to the existing treatment plant. With capacity upgrades currently underway at the treatment plant, the pump station will also need to be upgraded to meet these new capacity requirements.
The antiquated and outdoor existing timber structure, electrical controls and power rack, and other ancillary equipment will be replaced so that the design life of the pump station matches that of the new treatment plant. Additionally, the existing permanently mounted standby pump does not meet the capacity requirements and will either need to be upgraded or replaced with an emergency power supply in cases of outages for the station. This project will correct these deficiencies and bring this facility to current HRSD standards.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

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

PROPOSED SCHEDULE START DATE

PrePlanning	02/01/2023
PER	02/01/2023
Design Delay	08/01/2023
Design	04/01/2024
Bid Delay	01/01/2025
PreConstruction	09/01/2025
Construction	12/01/2025
Closeout	10/01/2026

COST ESTIMATE

Cost Estimate Class:	**Class 4**
PrePlanning	$0
PER	$117,256
Design	$453,634
PreConstruction	$37,803
Construction	$4,120,505
Closeout	$18,901
Est. Program Cost	**$4,748,099**
Contingency Budget	$378,028
Est. Project Costs	**$5,126,127**

Middle Peninsula Wastewater Master Plan

PR_MP015900

System: Mid-Peninsula
Type: Facilities, Buildings and Capital Equipment

Driver Category: Performance Upgrades
Project Phase: Pre Planning
Regulatory: None

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to Previous Year	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
$400	$176	$224	$0	$0	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project will evaluate and develop conceptual alternatives to manage the wastewater conveyance and treatment needs of the Middle Peninsula through 2050.

PROJECT JUSTIFICATION

Projected future growth in King William, Middlesex, King & Queen, and Mathews Counties will require additional wastewater conveyance and treatment capacity. In addition, some HRSD assets will need rehabilitation or replacement over the next 30 years. Taking a holistic strategic look, at the future capacity needs and asset renewal needs, will enable HRSD to program the right portfolio of projects in the CIP.

FUNDING TYPE

Funding Type: Cash

CONTACTS

Contacts-Requesting Dept: Operations
Contacts-Dept Contacts: Chris Swartz
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	07/03/2023
PER	07/29/2024
Design Delay	09/17/2024
Design	05/27/2025
Bid Delay	06/03/2025
PreConstruction	06/03/2025
Construction	06/03/2025
Closeout	06/03/2025

COST ESTIMATE

Cost Estimate Class:	**Class 5**
PrePlanning	$400,000
PER	$0
Design	$0
PreConstruction	$0
Construction	$0
Closeout	$0
Est. Program Cost	**$400,000**
Contingency Budget	$0
Est. Project Costs	**$400,000**